

COMPOSITIONS AND RELATED METHODS FOR AGRICULTURE

CROSS-REFERENCE TO RELATED APPLICATIONS

This application claims benefit of U.S. Provisional Application No. 62/703,304, filed July 25, 2018,
the contents of which are incorporated herein by reference in their entirety.

SEQUENCE LISTING

The instant application contains a Sequence Listing which has been submitted electronically in ASCII format and is hereby incorporated by reference in its entirety. Said ASCII copy, created on July 17, 2019, is named 51215-012WO2_Sequence_Listing_07.17.19_ST25 and is 60,129 bytes in size.

BACKGROUND

Plant pests, including insect pests, are pervasive in the human environment.

SUMMARY

In a first example, the disclosure comprises a method for decreasing colonization by a bacterium of a gut of a stink bug, the method comprising (a) providing a composition comprising vanillin or an analog thereof; and (b) delivering said composition to an egg from which the stink bug will hatch, whereby colonization by the bacterium within the gut of the stink bug hatched from the egg treated with the composition is decreased relative to a stink bug hatched from an untreated egg.

In one aspect, the present disclosure refers to a method for decreasing colonization by a bacterium of a gut of a stink bug, the method comprising:

- (a) providing a composition comprising vanillin or an analog of vanillin selected from Table 1; and
- (b) delivering said composition to a stink bug egg, wherein the gut of the stink bug hatched from the egg has decreased colonization by the bacterium relative to the gut of a stink bug hatched from an untreated egg; wherein the bacterium is *Candidatus Pantoea carbekii*.

In some examples, the composition is delivered to an egg mass of a stink bug. In some examples, the decrease in colonization by the bacterium decreases the fitness of the stink bug, e.g., decreases reproductive ability, survival, rate of development, number of eggs, number of hatched eggs, adult emergence rate, body length, body width, body mass, or cuticle thickness.

In some examples, the colonization is in the v4 region of the gut. In some examples, colonization by the bacterium of the v4 region of the gut is decreased by at least 5%. In some examples, the size of the v4 region of the gut is decreased.

In some examples, the stink bug is a *Halyomorpha* species (e.g., *Halyomorpha halys*), a *Nezara* species, an *Oebalus* species, a *Chinavia* species, an *Euthyrhynchus* species, an *Euschistus* species, an *Alcaeorrhynchus* species, or a *Podisus* species.

In some examples, the bacterium is an endosymbiont, e.g., an endosymbiont is of the genus *Pantoea*. In some examples, the endosymbiont is *Candidatus Pantoea carbekii*.

In some examples, the composition is a liquid, a solid, an aerosol, a paste, a gel, or a gas composition. In some examples, the composition is delivered as a spray. In some examples, the composition comprises an agriculturally acceptable carrier. In some examples, the composition comprises a wetting solution.

Disclosed herein are compositions and methods for altering the fitness of insects for agriculture or commerce, wherein the composition includes a bacterial colonization-disrupting agent (e.g., an agent (e.g., a lipopolysaccharide (LPS) synthesis inhibitor or a polyhydroxyalkanoate (PHA) synthesis inhibitor) that decreases colonization of a bacteria (e.g., an endosymbiotic bacteria) in the gut of the insect.

In one example, provided herein is a method of altering the fitness of an insect comprising delivering to the insect an effective amount of a composition including a bacterial colonization-disrupting agent. In some examples, the method includes decreasing the fitness of the insect delivered the bacterial colonization-disrupting agent. Alternatively, in some examples, the method includes increasing the fitness of the insect delivered the bacterial colonization-disrupting agent.

In another example, provided herein is a method of decreasing bacterial colonization in the gut of an insect including delivering to the insect an effective amount of a composition including a bacterial colonization-disrupting agent.

In some examples of the methods herein, the bacterial colonization-disrupting agent is an inhibitor of bacterial metabolism. In some examples, the bacterial colonization-disrupting agent is a polyhydroxyalkanoate (PHA) synthesis inhibitor.

In another example, provided herein is a method of altering the fitness of an insect including delivering to the insect an effective amount of a composition including a PHA synthesis inhibitor. In some examples, the method includes decreasing the fitness of the insect delivered the PHA inhibitor. In some examples, the method includes increasing the fitness of the insect delivered the PHA inhibitor. In some examples, the PHA synthesis inhibitor is vanillin or an analog thereof. In some examples, the PHA synthesis inhibitor is one or more compounds in Table 1. In some examples, the PHA synthesis inhibitor is levulinic acid or an analog thereof. In some examples, the PHA synthesis inhibitor is acrylic acid or an analog thereof. In some examples, the PHA synthesis inhibitor is 2-bromooctanoic acid or an analog thereof.

In some examples of the methods herein, the bacterial colonization-disrupting agent is an inhibitor of cell envelope biogenesis (e.g., biogenesis of the membrane(s) or other structures that surround and protect the bacterial cytoplasm, e.g., cell wall, inner membrane, and outer membrane). In some examples of the methods herein, the bacterial colonization-disrupting agent is a lipopolysaccharide (LPS) synthesis inhibitor.

In another example, provided herein is a method of altering the fitness of an insect including delivering to the insect an LPS synthesis inhibitor. In some examples, the method includes decreasing the fitness of the insect delivered the LPS synthesis inhibitor. In some examples, the method includes increasing the fitness of the insect delivered the LPS synthesis inhibitor.

In some examples, the LPS synthesis inhibitor is an inhibitor of core oligosaccharide synthesis in the bacteria. In some examples, the LPS synthesis inhibitor inhibits an enzyme involved in core oligosaccharide synthesis in the bacteria. In some examples, the enzyme has at least 40%, 50%, 60%, 70%, 80%, 90%, 95%, 98%, 99%, or 100% sequence identity to a polypeptide having the amino acid sequence of WaaA, WaaC, WaaF, or WaaG. In some examples, the LPS synthesis inhibitor (e.g., the inhibitor of an enzyme involved in LPS synthesis) is a sugar. In some examples, the sugar is ADP-2-fluoroheptose (AFH). In some examples, the sugar is 2-aryl-5-methyl-4-(5-aryl-furan-2-yl-methylene)-2,4-dihydro-pyrazol-3-ones (DHPO). In some examples, the sugar is AFH and DHPO. In some examples, the sugar is one or more compounds in Table 7.

In some examples, the LPS synthesis inhibitor inhibits expression of a gene involved in core oligosaccharide synthesis in the bacteria. In some examples, the gene has at least 40%, 50%, 60%,

70%, 80%, 90%, 95%, 98%, 99%, or 100% sequence identity to a polynucleotide having the nucleotide sequence of *waaA*, *waaC*, *waaF*, or *waaG*.

In some examples, the bacterial colonization-disrupting agent is an inhibitor of bacterial cell wall biogenesis. In some examples, the inhibitor of bacterial cell wall biogenesis is an inhibitor of undecaprenyl pyrophosphate phosphatase (UppP), e.g., bacitracin.

In some examples, the bacterial colonization-disrupting agent is an inhibitor of flagellar function, e.g., cellulose.

In some examples of the methods herein, the insect is a plant pest. In some examples, the plant pest is of the order Coleoptera, Diptera, Hemiptera, Lepidoptera, Orthoptera, Thysanoptera, or Acarina.

In some examples, the insect is a stink bug, bean bug, beetle, weevil, fly, aphid, whitefly, leafhopper, scale, moth, butterfly, grasshopper, cricket, thrip, or mite. In some examples, the insect is of the genus *Riptortus*. In some examples, the insect is of the genus *Halyomorpha*.

In some examples of the methods herein, the insect is a vector of an animal pathogen and/or a human pathogen. In some examples, the insect is a mosquito, a midge, a louse, a sandfly, a tick, a triatomine bug, a tsetse fly, or flea.

In some examples of the methods herein, the bacteria is an endosymbiotic bacteria. In some examples, the endosymbiont resides in the gut of the insect. In some examples, the bacteria resides in a specialized cell or a specialized organ in the gut of the insect. In some examples, the specialized organ is a midgut crypt or a bacteriome. In some examples, the specialized cell is a bacteriocyte. In some examples, the endosymbiotic bacteria is of the genus *Burkholderia*. In some examples, the endosymbiotic bacteria is of the genus *Pantoea*.

In some examples of the methods herein, the method is effective to decrease the fitness of the insect relative to an untreated insect. In some examples, the decrease in fitness of the insect is a decrease (e.g., by about 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or more than 100%) in reproductive ability, survival, rate of development, number of hatched eggs, adult emergence rate, body length, or weight relative to an untreated insect.

In some examples, the method is effective to decrease bacterial colonization (e.g., by about 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or more than 100%) in the gut of the insect relative to an untreated insect.

In some examples, the method is effective to inhibit a physical interaction between the bacteria and the gut of the insect.

In some examples of the methods herein, the composition is delivered to the insect to at least one habitat where the insect grows, lives, or reproduces.

In some examples of the methods herein, the composition is a liquid, a solid, an aerosol, a paste, a gel, or a gas composition.

In some examples of the methods herein, the composition is delivered as an insect comestible composition for ingestion by the insect.

In some examples of the methods herein, the composition is delivered to the insect by ingestion, infusion, injection, or spraying. In some examples, the composition is delivered to eggs of the insect.

In some examples of the methods herein, the composition includes an agriculturally acceptable carrier.

In yet another example, provided herein is a modified insect produced by a method including contacting the insect with a composition including a bacterial colonization-disrupting agent in accordance with any of the methods herein.

In a further example, provided herein is a screening assay to identify a bacterial colonization-disrupting agent, including the steps of (a) exposing a target insect to one or more agents; and (b) identifying an agent that (i) decreases the fitness of the target insect (e.g., by about 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or more than 100%), and (ii) inhibits colonization of a bacterium in the gut of the target insect (e.g., by about 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or more than 100%).

In some examples of the assay herein, the decrease in fitness is decreased survival of the target insect. In some examples, the decrease in fitness is a decrease in reproductive ability, survival, rate of development, number of hatched eggs, adult emergence rate, body length, or body mass.

In some examples, the agent is effective to inhibit a physical interaction between the bacteria and the gut of the insect.

In some examples of the assay herein, the bacteria is an endosymbiotic bacteria. In some examples, the endosymbiotic bacteria resides in the gut of the insect. In some examples, the bacteria resides in a specialized cell or a specialized organ in the gut of the insect. In some examples, the specialized organ is a midgut crypt or a bacteriome. In some examples, the specialized cell is a bacteriocyte. In some examples, the bacterium is of the genus *Burkholderia*. In some examples, the bacterium is of the genus *Pantoea*.

In some examples of the assay herein, the bacterial colonization-disrupting agent is a PHA synthesis inhibitor.

In some examples of the assay herein, the bacterial colonization-disrupting agent is an LPS synthesis inhibitor.

In some examples of the assay herein, the insect is a plant pest. In some examples, the plant pest is of the order *Coleoptera*, *Diptera*, *Hemiptera*, *Lepidoptera*, *Orthoptera*, *Thysanoptera*, or *Acarina*.

In some examples of the assay herein, the insect is a vector of an animal pathogen and/or a human pathogen. In some examples, the insect is a mosquito, a midge, a louse, a sandfly, a tick, a triatomine bug, a tsetse fly, or flea.

In another example, provided herein is a modified insect produced by a method including contacting the insect with a composition including a bacterial colonization-disrupting agent identified by the screening assay herein.

In yet another example, provided herein is a method of decreasing the fitness of an insect including delivering to the insect an effective amount of a composition including a bacterial colonization-disrupting agent identified by the screening assay herein.

In a further example, provided here in is a composition including a bacterial colonization-disrupting agent and a carrier, wherein the composition is formulated for delivery to an insect, or a habitat thereof.

In some examples of the composition herein, the bacterial colonization-disrupting agent is a polyhydroxyalkanoate (PHA) synthesis inhibitor. In some examples, the PHA synthesis inhibitor is vanillin or an analog thereof. In some examples, the PHA synthesis inhibitor is one or more compounds in Table 1. In some examples, the PHA synthesis inhibitor is levulinic acid or an analog thereof. In some
5 examples, the PHA synthesis inhibitor is acrylic acid or an analog thereof. In some examples, the PHA synthesis inhibitor is 2-bromooctanoic acid or an analog thereof.

In some examples of the composition herein, the bacterial colonization-disrupting agent is an inhibitor of bacterial cell envelope biogenesis. In some examples, the inhibitor of bacterial cell envelope biogenesis is a lipopolysaccharide (LPS) synthesis inhibitor. In some examples, the LPS synthesis
10 inhibitor is an inhibitor of core oligosaccharide synthesis in the bacteria. In some examples, the LPS synthesis inhibitor inhibits an enzyme involved in core oligosaccharide synthesis in the bacteria. In some examples, the enzyme has at least 40%, 50%, 60%, 70%, 80%, 90%, 95%, 98%, 99%, or 100% sequence identity to a polypeptide having the amino acid sequence of WaaA, WaaC, WaaF, or WaaG. In some examples, the LPS synthesis inhibitor (e.g., the inhibitor of an enzyme involved in LPS synthesis) is
15 a sugar. In some examples, the sugar is ADP-2-fluoroheptose (AFH). In some examples, the sugar is 2-aryl-5-methyl-4-(5-aryl-furan-2-yl-methylene)-2,4-dihydro-pyrazol-3-ones (DHPO). In some examples, the sugar is AFH and DHPO. In some examples, the sugar is one or more compounds in Table 7.

In some examples, the LPS synthesis inhibitor inhibits expression of a gene involved in core oligosaccharide synthesis in the bacteria. In some examples, the gene has at least 40%, 50%, 60%,
20 70%, 80%, 90%, 95%, 98%, 99%, or 100% sequence identity to a polynucleotide having the nucleotide sequence of *waaA*, *waaC*, *waaF*, or *waaG*.

In some examples, the bacterial colonization-disrupting agent is an inhibitor of bacterial cell wall biogenesis. In some examples, the inhibitor of bacterial cell wall biogenesis is an inhibitor of undecaprenyl pyrophosphate phosphatase (UppP), e.g., bacitracin.

25 In some examples, the bacterial colonization-disrupting agent is an inhibitor of flagellar function, e.g., cellulose.

In some examples of the composition herein, the bacterial colonization-disrupting agent is at least 0.1%, 0.2%, 0.4%, 0.5%, 0.8%, 1%, 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, or 90% of the composition. In some examples, the carrier is a liquid, a solid, an aerosol, a paste, a gel, or a gas
30 composition. In some examples, the carrier is a sugar syrup, corn syrup, or honey. In some examples, the carrier is a nanoparticle or lipid membrane.

In some examples of the composition herein, the composition is formulated for delivery to the insect, for example, by ingestion, infusion, injection, spraying, smoking, or fogging. In some examples, the composition is formulated for delivery to at least one habitat, for example, where the insect grows,
35 lives, reproduces, or feeds. In some examples, the composition is formulated for delivery to a plant ingested by the insect. In another example, provided herein is a modified plant or part thereof including a bacterial colonization-disrupting agent, wherein the plant or part thereof is ingested by an insect. In some examples, the plant is genetically engineered to produce the bacterial colonization-disrupting agent, e.g., by expression from a heterologous genetic construct.

Definitions

As used herein, the term “bacterial colonization-disrupting agent” refers to an agent that impedes or disrupts colonization of a bacteria in the gut of an insect (e.g., colonization of the surface of the gut or colonization of a cell (e.g., bacteriocyte) or organ (e.g., bacteriome or crypt) therein). For example, the agent may alter properties of the bacteria (e.g., bacterial metabolism or bacterial cell surface), or components thereof, and/or the insect gut, or components thereof, such that the bacteria can no longer adhere, associate with, or propagate in the gut of the insect. Exemplary bacterial colonization-disrupting agents include lipopolysaccharide (LPS) synthesis inhibitors, polyhydroxyalkanoate (PHA) synthesis inhibitors, inhibitors of cell wall biogenesis, and inhibitors of flagellar function.

As used herein, the term “colonizing” refers to persistence of a bacterium in an insect in an amount and for a duration sufficient to establish a population of bacteria in the insect (e.g., insect gut) that persists for the lifespan of the insect. The bacterium, once colonized, may further be vertically transmitted through at least one additional generation, e.g., two or more generations (e.g., life cycles) of the insect.

As used herein, the term “effective amount” refers to an amount of a bacterial colonization-disrupting agent, or composition including said agent sufficient to effect the recited result, e.g., to decrease the fitness of an insect; to reach a target level (e.g., a predetermined or threshold level) of a bacterial colonization-disrupting agent concentration inside a target insect; to reach a target level (e.g., a predetermined or threshold level) of a bacterial colonization-disrupting agent concentration inside a target insect gut; to reach a target level (e.g., a predetermined or threshold level) of a bacterial colonization-disrupting agent concentration inside a target insect bacteriocyte; to reach a target level (e.g., a predetermined or threshold level) of a bacterial colonization-disrupting agent concentration inside a target insect crypt; and/or to decrease colonization of one or more microorganisms (e.g., endosymbiont) in the gut of the target insect.

As used herein “decreasing the fitness of an insect” refers to any unfavorable alteration to insect physiology, or any activity carried out by said insect, as a consequence of administration of a bacterial colonization-disrupting agent, including, but not limited to, any one or more of the following desired effects: (1) decreasing a population of an insect by about 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, 99%, 100% or more; (2) decreasing the reproductive rate of an insect by about 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, 99%, 100% or more; (3) decreasing the mobility of an insect by about 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, 99%, 100% or more; (4) decreasing the body weight of an insect by about 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, 99%, 100% or more; (5) decreasing the metabolic rate or activity of an insect by about 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, 99%, 100% or more; or (6) decreasing plant infestation by an insect by about 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, 99%, 100% or more. A decrease in insect fitness can be determined in comparison to an insect to which the bacterial colonization-disrupting agent has not been administered.

As used herein, the term “fitness” refers to the ability of an insect to survive, grow, and/or to produce surviving offspring. Fitness of an organism may be measured by one or more parameters,

including, but not limited to survival, life span, reproductive ability, reproductive rate, reproductive period, number of eggs laid, number of hatched eggs, developmental rate, adult emergence rate, mobility, body size (e.g., body length, body mass, or body width (e.g., pronotal width of a stink bug)), cuticle (exoskeleton) thickness, pigmentation, or metabolic rate.

As used herein, the term “gut” refers to any portion of an insect’s gut, including, the foregut, midgut, or hindgut of the insect, and any specialized organ (e.g., crypt or bacteriome) or cell (e.g., bacteriocyte) therein. As used herein, the terms “v1”, “v2”, “v3”, and “v4” refer to morphologically distinct regions of the midgut dissected from an adult hemipteran insect (e.g., a stink bug or a bean bug), which are numbered respectively from anterior to posterior. As used herein, v1 refers to the stomach-like midgut first region; v2 refers to the tubular midgut second region; v3 refers to the expanded sac-like midgut third region; and v4 refers to the midgut fourth region, which contains numerous crypts having lumen that may include symbiotic cells. Bacterial colonization may occur in one, more than one, or all regions of the gut. In some examples, bacterial colonization occurs in the v4 region of the midgut. The v1-v4 regions may also be referred to as m1-m4 (Duron and Noel, *Environmental Microbiology Reports*, 8(5): 715-727).

As used herein, the term “host” refers to an organism (e.g., insect) carrying resident microorganisms (e.g., endogenous microorganisms, endosymbiotic microorganisms (e.g., primary or secondary endosymbionts), commensal organisms, and/or pathogenic microorganisms).

As used herein, “increasing the fitness of an insect” refers to any favorable alteration in insect physiology, phenotype, or any activity of the insect, including, but not limited to, any one or more of the following desired effects: (1) increasing a population of an insect by about 1%, 2%, 3%, 4%, 6%, 7%, 8%, 9%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, 99%, 100% or more; (2) increasing the reproductive rate of an insect by about 1%, 2%, 3%, 4%, 6%, 7%, 8%, 9%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, 99%, 100% or more; (3) increasing the mobility of an insect by about 1%, 2%, 3%, 4%, 6%, 7%, 8%, 9%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, 99%, 100% or more; (4) increasing the body weight of an insect by about 1%, 2%, 3%, 4%, 6%, 7%, 8%, 9%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, 99%, 100% or more; (5) increasing the metabolic rate or activity of an insect by about 1%, 2%, 3%, 4%, 6%, 7%, 8%, 9%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, 99%, 100% or more; (6) increasing pollination (e.g., number of plants pollinated in a given amount of time) by an insect by about 1%, 2%, 3%, 4%, 6%, 7%, 8%, 9%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, 99%, 100% or more; (7) increasing production of insect byproducts (e.g., honey or silk) by about 1%, 2%, 3%, 4%, 6%, 7%, 8%, 9%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, 99%, 100% or more; (8) increasing nutrient content of the insect (e.g., protein, fatty acids, or amino acids) by about 1%, 2%, 3%, 4%, 6%, 7%, 8%, 9%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, 99%, 100% or more; or (9) increasing insect resistance to pesticides by about 1%, 2%, 3%, 4%, 6%, 7%, 8%, 9%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, 99%, 100% or more. An increase in insect fitness can be determined in comparison to a control (e.g., an untreated insect).

The term “insect” or “arthropod” includes any organism belonging to the phylum *Arthropoda* and to the class *Insecta* or the class *Arachnida*, in any stage of development, i.e., immature or adult insects.

As used herein, the term “beneficial insect” refers to an insect whose presence confers benefits to agricultural, horticultural, or commercial applications, or whose presence or activity is otherwise desirable.

As used herein, the term “microorganism” refers to bacteria or fungi. Microorganisms may refer to microorganisms resident in an insect (e.g., endogenous microorganisms, endosymbiotic
5 microorganisms (e.g., primary or secondary endosymbionts)) or microorganisms exogenous to the insect, including those that produce bacterial colonization-disrupting agents.

As used herein, the term “peptide,” “protein,” or “polypeptide” encompasses any chain of naturally or non-naturally occurring amino acids (either D- or L-amino acids), regardless of length (e.g., at least 2, 3, 4, 5, 6, 7, 10, 12, 14, 16, 18, 20, 25, 30, 40, 50, 100, or more amino acids), the presence or absence of
10 post-translational modifications (e.g., glycosylation or phosphorylation), or the presence of, e.g., one or more non-amino acyl groups (for example, sugar, lipid, etc.) covalently linked to the peptide, and includes, for example, natural proteins, synthetic, or recombinant polypeptides and peptides, hybrid molecules, peptoids, or peptidomimetics.

As used herein, “percent identity” between two sequences is determined by the BLAST 2.0
15 algorithm, which is described in Altschul et al. (*J. Mol. Biol.* 215:403-410, 1990). Software for performing BLAST analyses is publicly available through the National Center for Biotechnology Information.

As used herein, the term “pest” refers to an insect that causes damage to plants or other organisms, are present where they are not wanted, or otherwise are detrimental to humans, for example, by impacting human agricultural methods or products.

As used herein, the term “plant” refers to whole plants, plant organs, plant tissues, seeds, plant
20 cells, seeds, and progeny of the same. Plant cells include, without limitation, cells from seeds, suspension cultures, embryos, meristematic regions, flowers, callus tissue, leaves, roots, shoots, gametophytes, sporophytes, pollen, or microspores. Plant parts include differentiated or undifferentiated tissues including, but not limited to the following: roots, stems, shoots, leaves, pollen, seeds, tumor tissue,
25 and various forms of cells and culture (e.g., single cells, protoplasts, embryos, or callus tissue). The plant tissue may be in a plant or in a plant organ, tissue, or cell culture.

As used herein, the term “symbiont” or “insect symbiont” refers to an intracellular or extracellular microorganism that, upon colonization of an insect, confers fitness benefits to the insect. An
“endosymbiont” refers to a microorganism capable of living within an insect cell or organ, such as a
30 bacteriocyte or crypt.

As used herein, the term “untreated insect” or “unmodified insect” refers to an insect, or population thereof, that has not been specifically contacted with or delivered (e.g., in accordance with a method described herein) a bacterial colonization-disrupting agent (e.g., has not been contacted with or delivered a bacterial colonization-disrupting agent at any point in time, or has been assessed at a point in
35 time prior to contact with or delivery of the bacterial colonization-disrupting agent).

Other features and advantages of the invention will be apparent from the following Detailed Description and the Claims.

BRIEF DESCRIPTION OF THE DRAWINGS

The figures are meant to be illustrative of one or more features, aspects, or embodiments of the
40 invention and are not intended to be limiting.

Fig. 1 is a scatter plot showing the ratio of expression of the *Candidatus Pantoea carbekii* (*P. carbekii*) *dnaK* gene and the *Halyomorpha halys* 60s gene based on pooled qPCR data from 2nd, 3rd, and 4th instar *H. halys* hatched from eggs treated with ethanol and bleach (Bleached) or not treated with ethanol or bleach (Non-bleached). Bars indicate mean and standard deviation.

Fig. 2A is a graph showing the number of nymphs that are in the 2nd instar, 3rd instar, 4th instar, 5th instar, or adult developmental stage at a given number of days after hatching. Individuals were hatched from ethanol-treated and bleached (bl) eggs (dashed lines) or eggs that were not treated with ethanol or bleach (control) (solid lines). Error bars indicate standard deviation.

Fig. 2B is a box plot showing the average number of days after hatching at which a population of *H. halys* hatched from ethanol-treated and bleached eggs or eggs that were not treated with ethanol or bleach (control) reaches 50% adult insects. $t = t$ value; $df =$ degrees of freedom.

Fig. 3A is a photograph showing guts dissected from *H. halys* individuals of the same age that were hatched from ethanol-treated and bleached eggs (symbiont-free) or eggs that were not treated with ethanol or bleach (control). The v1, v2, v3, and v4 regions of the gut are labeled.

Fig. 3B is a photograph showing size and color differences between female *H. halys* individuals of the same age that were hatched from ethanol-treated and bleached eggs (symbiont-free; right) or eggs that were not treated with ethanol or bleach (control; left).

Fig. 3C is a scatter plot showing the average width of the pronotum (pronotal width; a proxy for size) in female and male *H. halys* individuals that were hatched from ethanol-treated and bleached eggs (Bleached) or eggs that were not treated with ethanol or bleach (Non-Bleached).

Fig. 4 is a scatter plot showing the average number of eggs in an egg mass produced by female *H. halys* individuals that were hatched from ethanol-treated and bleached eggs (Bleached) or eggs that were not treated with ethanol or bleach (Control).

Fig. 5 is a scatter plot showing the ratio of expression of the *P. carbekii* *dnaK* gene and the *H. halys* 60s gene based on pooled qPCR data from late 2nd instar *H. halys* nymphs hatched from eggs that were treated with a negative control (water), a positive control (Rifamycin S), or a polyhydroxyalkanoate (PHA) inhibitor (2-bromooctanoic acid, acrylic acid, vanillin, or levulinic acid). Asterisks show statistical significance of $p < 0.05$ when compared to the water control group, and numbers above the asterisks show fold difference (reduction) of means compared to the water controls.

Fig. 6 is a scatter plot showing the ratio of expression of the *P. carbekii* *dnaK* gene and the *H. halys* 60s gene based on pooled qPCR data from late 2nd instar *H. halys* nymphs hatched from eggs that were treated with a negative control (water), a positive control (Rifamycin S), or the cell wall synthesis inhibitor bacitracin. The asterisks show statistical significance of $p < 0.05$ when compared to the water control group, and the numbers above the asterisks show fold difference (reduction) of means compared to the water controls.

Fig. 7 is a scatter plot showing the ratio of expression of the *P. carbekii* *dnaK* gene and the *H. halys* 60s gene based on pooled qPCR data from late 2nd instar *H. halys* nymphs hatched from eggs that were treated with a negative control (water), a positive control (Rifamycin S), or the flagellar function inhibitor cellulose. The asterisks show statistical significance of $p < 0.05$ when compared to the water

control group, and the numbers above the asterisks show fold difference (reduction) of means compared to the water controls.

Fig. 8 is a diagram showing the developmental stages of the brown marmorated stink bug (*H. halys*) including eggs, 1st instar insects, 2nd instar insects, 3rd instar insects, 4th instar insects, 5th instar insects, and male and female adult insects.

DETAILED DESCRIPTION

Provided herein are methods and compositions including bacterial colonization-disrupting agents useful for decreasing or preventing bacterial colonization in the gut of insects. The integrity of the gut microbiota is important for insect fitness. A number of insects have evolved to be obligatorily dependent on bacterial symbionts, including intracellular symbionts (e.g., endosymbionts). Many of these bacteria reside in the gut of insects, and in some cases, the insect harbors such bacteria in specialized cells (bacteriocytes) or organs (bacteriomes or crypts). By impeding colonization of bacteria in the insect gut or in the specialized organs or cells therein, the present methods and compositions can be used to decrease the fitness of a variety of insects, such as insects that are considered pests in agricultural or commercial industries or otherwise insects harmful to humans or animals (e.g., insect vectors of disease).

A variety of bacterial colonization-disrupting agents are useful in the present methods. The methods and compositions described herein are based, in part, on the examples which illustrate how different agents, for example, lipopolysaccharide (LPS) synthesis inhibitors, polyhydroxyalkanoate (PHA) synthesis inhibitors, inhibitors of cell wall biogenesis, or inhibitors of flagellar function, can be used to decrease colonization of symbiotic microorganisms in insect hosts (e.g., endosymbiotic *Burkholderia* in bean bugs or *Candidatus Pantoea carbekii* in stink bugs) to decrease the fitness of these hosts. Screening methods are also provided herein for identifying additional bacterial colonization-disrupting agents.

I. Methods of Altering Insect Fitness

Provided herein are methods of altering the fitness (e.g., decreasing the fitness or increasing the fitness) of an insect by delivering to the insect a composition including a bacterial colonization-disrupting agent. Examples of insects that can be targeted by the present methods, fitness benefits that can be conferred by the present methods, and methods for delivering the bacterial colonization-disrupting agent to insects are further described, below.

i. Insects

The bacterial colonization-disrupting agents herein can be applied to a variety of insects. For example, the insect may be an agricultural pest. Pests include insects that cause damage to plants or other organisms, or otherwise are detrimental to humans, for example, human agricultural methods or products.

In some instances, the insect is of the order: Acari, Araneae, Anoplura, Coleoptera, Collembola, Dermaptera, Dictyoptera, Diplura, Diptera (e.g., spotted-wing *Drosophila*), Embioptera, Ephemeroptera, Grylloblatodea, Hemiptera (e.g., aphids, Greenhouse whitefly), Homoptera, Hymenoptera, Isoptera,

Lepidoptera, Mallophaga, Mecoptera, Neuroptera, Odonata, Orthoptera, Phasmida, Plecoptera, Protura, Psocoptera, Siphonaptera, Siphunculata, Thysanura, Strepsiptera, Thysanoptera, Trichoptera, or Zoraptera.

In some instances, the insect is of the class Arachnida, for example, *Acarus* spp., *Aceria sheldoni*, *Aculops* spp., *Aculus* spp., *Amblyomma* spp., *Amphitetranynchus viennensis*, *Argas* spp., *Boophilus* spp., *Brevipalpus* spp., *Bryobia graminum*, *Bryobia praetiosa*, *Centruroides* spp., *Chorioptes* spp., *Dermanyssus gallinae*, *Dermatophagoides pteronyssinus*, *Dermatophagoides farinae*, *Dermacentor* spp., *Eotetranychus* spp., *Epitrimerus pyri*, *Eutetranychus* spp., *Eriophyes* spp., *Glycyphagus domesticus*, *Halotydeus destructor*, *Hemitarsonemus* spp., *Hyalomma* spp., *Ixodes* spp., *Latrodectus* spp., *Loxosceles* spp., *Metatetranychus* spp., *Neutrombicula autumnalis*, *Nuphersa* spp., *Oligonychus* spp., *Ornithodoros* spp., *Ornithonyssus* spp., *Panonychus* spp., *Phyllocoptruta oleivora*, *Polyphagotarsonemus latus*, *Psoroptes* spp., *Rhipicephalus* spp., *Rhizoglyphus* spp., *Sarcoptes* spp., *Scorpio maurus*, *Steneotarsonemus* spp., *Steneotarsonemus spinki*, *Tarsonemus* spp., *Tetranychus* spp., *Trombicula alfreddugesi*, *Vaejovis* spp., or *Vasates lycopersici*.

In some instances, the insect is of the class Chilopoda, for example, *Geophilus* spp. or *Scutigera* spp.

In some instances, the insect is of the order Collembola, for example, *Onychiurus armatus*.

In some instances, the insect is of the class Diplopoda, for example, *Blaniulus guttulatus*;

In some instances, the insect is of the class Insecta, e.g. from the order Blattodea, for example, *Blattella asahinai*, *Blattella germanica*, *Blatta orientalis*, *Leucophaea maderae*, *Panchlora* spp., *Parcoblatta* spp., *Periplaneta* spp., or *Supella longipalpa*.

In some instances, the insect is of the order Coleoptera, for example, *Acalymma vittatum*, *Acanthoscelides obtectus*, *Adoretus* spp., *Agelastica alni*, *Agriotes* spp., *Alphitobius diaperinus*, *Amphimallon solstitialis*, *Anobium punctatum*, *Anoplophora* spp., *Anthonomus* spp., *Anthrenus* spp., *Apion* spp., *Apogonia* spp., *Atomaria* spp., *Attagenus* spp., *Bruchidius obtectus*, *Bruchus* spp., *Cassida* spp., *Cerotoma trifurcata*, *Ceutorrhynchus* spp., *Chaetocnema* spp., *Cleonus mendicus*, *Conoderus* spp., *Cosmopolites* spp., *Costelytra zealandica*, *Ctenicera* spp., *Curculio* spp., *Cryptolestes ferrugineus*, *Cryptorhynchus lapathi*, *Cylindrocopturus* spp., *Dermestes* spp., *Diabrotica* spp. (e.g., corn rootworm), *Dichocrocis* spp., *Dicladispa armigera*, *Diloboderus* spp., *Epilachna* spp., *Epitrix* spp., *Faustinus* spp., *Gibbium psylloides*, *Gnathocerus cornutus*, *Hellula undalis*, *Heteronychus arator*, *Heteronyx* spp., *Hylamorpha elegans*, *Hylotrupes bajulus*, *Hypera postica*, *Hypomeces squamosus*, *Hypothenemus* spp., *Lachnosterna consanguinea*, *Lasioderma serricorne*, *Latheticus oryzae*, *Lathridius* spp., *Lema* spp., *Leptinotarsa decemlineata*, *Leucoptera* spp., *Lissorhoptrus oryzophilus*, *Lixus* spp., *Luperodes* spp., *Lyctus* spp., *Megascelis* spp., *Melanotus* spp., *Meligethes aeneus*, *Melolontha* spp., *Migdolus* spp., *Monochamus* spp., *Naupactus xanthographus*, *Necrobia* spp., *Niptus hololeucus*, *Oryctes rhinoceros*, *Oryzaephilus surinamensis*, *Oryzaphagus oryzae*, *Otiorrhynchus* spp., *Oxycetonia jucunda*, *Phaedon cochleariae*, *Phyllophaga* spp., *Phyllophaga helleri*, *Phyllotreta* spp., *Popillia japonica*, *Premnotrypes* spp., *Prostephanus truncatus*, *Psylliodes* spp., *Ptinus* spp., *Rhizobius ventralis*, *Rhizopertha dominica*, *Sitophilus* spp., *Sitophilus oryzae*, *Sphenophorus* spp., *Stegobium paniceum*, *Sternechus* spp., *Symphyletes* spp., *Tanymecus* spp., *Tenebrio molitor*, *Tenebrioides mauretanicus*, *Tribolium* spp., *Trogoderma* spp., *Tychius* spp., *Xylotrechus* spp., or *Zabrus* spp.;

In some instances, the insect is of the order Diptera, for example, *Aedes* spp., *Agromyza* spp., *Anastrepha* spp., *Anopheles* spp., *Asphondylia* spp., *Bactrocera* spp., *Bibio hortulanus*, *Calliphora erythrocephala*, *Calliphora vicina*, *Ceratitis capitata*, *Chironomus* spp., *Chrysomya* spp., *Chrysops* spp., *Chrysozona pluvialis*, *Cochliomyia* spp., *Contarinia* spp., *Cordylobia anthropophaga*, *Cricotopus sylvestris*, *Culex* spp., *Culicoides* spp., *Culiseta* spp., *Cuterebra* spp., *Dacus oleae*, *Dasyneura* spp., *Delia* spp., *Dermatobia hominis*, *Drosophila* spp., *Echinocnemus* spp., *Fannia* spp., *Gasterophilus* spp., *Glossina* spp., *Haematopota* spp., *Hydrellia* spp., *Hydrellia griseola*, *Hylemya* spp., *Hippobosca* spp., *Hypoderma* spp., *Liriomyza* spp., *Lucilia* spp., *Lutzomyia* spp., *Mansonina* spp., *Musca* spp. (e.g., *Musca domestica*), *Oestrus* spp., *Oscinella frit*, *Paratanytarsus* spp., *Paralauterborniella subcincta*, *Pegomyia* spp., *Phlebotomus* spp., *Phorbia* spp., *Phormia* spp., *Piophilina casei*, *Prodiptosis* spp., *Psila rosae*, *Rhagoletis* spp., *Sarcophaga* spp., *Simulium* spp., *Stomoxys* spp., *Tabanus* spp., *Tetanops* spp., or *Tipula* spp.

In some instances, the insect is of the order Heteroptera, for example, *Alydidae*, *Anasa tristis*, *Antestiopsis* spp., *Boisea* spp., *Blissus* spp., *Calocoris* spp., *Campylomma livida*, *Cavelerius* spp., *Cimex* spp., *Collaria* spp., *Creontiades dilutus*, *Dasynus piperis*, *Dichelops furcatus*, *Diconocoris hewetti*, *Dysdercus* spp., *Euschistus* spp., *Eurygaster* spp., *Heliopeltis* spp., *Horcias nobilellus*, *Leptocoris* spp., *Leptocoris varicornis*, *Leptoglossus phyllopus*, *Lygus* spp., *Macropes excavatus*, *Miridae*, *Monalonion atratum*, *Nezara* spp., *Oebalus* spp., *Pentatomidae*, *Piesma quadrata*, *Piezodorus* spp., *Psallus* spp., *Pseudacysta persea*, *Rhodnius* spp., *Sahlbergella singularis*, *Scaptocoris castanea*, *Scotinophora* spp., *Stephanitis nashi*, *Tibraca* spp., or *Triatoma* spp.

In some instances, the insect is of the order Homoptera, for example, *Acizzia acaciaebaileyanae*, *Acizzia dodonaeae*, *Acizzia uncatoides*, *Acrida turrita*, *Acyrtosiphon* spp., *Acrogonia* spp., *Aeneolamia* spp., *Agonoscena* spp., *Aleyrodes proletella*, *Aleurolobus barodensis*, *Aleurothrixus floccosus*, *Allocaridara malayensis*, *Amrasca* spp., *Anuraphis cardui*, *Aonidiella* spp., *Aphanostigma pini*, *Aphis* spp. (e.g., *Apis gossypii*), *Arboridia apicalis*, *Arytainilla* spp., *Aspidiella* spp., *Aspidiotus* spp., *Atanus* spp., *Aulacorthum solani*, *Bemisia tabaci*, *Blastopsylla occidentalis*, *Boreioglycaspis melaleucae*, *Brachycaudus helichrysi*, *Brachycolus* spp., *Brevicoryne brassicae*, *Cacopsylla* spp., *Calligypona marginata*, *Carneocephala fulgida*, *Ceratovacuna lanigera*, *Cercopidae*, *Ceroplastes* spp., *Chaetosiphon fragaefolii*, *Chionaspis tegalensis*, *Chlorita onukii*, *Chondracris rosea*, *Chromaphis juglandicola*, *Chrysomphalus ficus*, *Cicadulina mbila*, *Coccothrips halli*, *Coccus* spp., *Cryptomyzus ribis*, *Cryptoneossa* spp., *Ctenarytaina* spp., *Dalbulus* spp., *Dialeurodes citri*, *Diaphorina citri*, *Diaspis* spp., *Drosicha* spp., *Dysaphis* spp., *Dysmicoccus* spp., *Empoasca* spp., *Eriosoma* spp., *Erythroneura* spp., *Eucalyptolyma* spp., *Euphyllura* spp., *Euscelis bilobatus*, *Ferrisia* spp., *Geococcus coffeae*, *Glycaspis* spp., *Heteropsylla cubana*, *Heteropsylla spinulosa*, *Homalodisca coagulata*, *Homalodisca vitripennis*, *Hyalopterus arundinis*, *Icerya* spp., *Idiocerus* spp., *Idioscopus* spp., *Laodelphax striatellus*, *Lecanium* spp., *Lepidosaphes* spp., *Lipaphis erysimi*, *Macrosiphum* spp., *Macrosteles facifrons*, *Mahanarva* spp., *Melanaphis sacchari*, *Metcalfiella* spp., *Metopolophium dirhodum*, *Monellia costalis*, *Monelliopsis pecanis*, *Myzus* spp., *Nasonovia ribisnigri*, *Nephotettix* spp., *Nettigniclla spectra*, *Nilaparvata lugens*, *Oncometopia* spp., *Orthezia praelonga*, *Oxya chinensis*, *Pachyphsyla* spp., *Parabemisia myricae*, *Paratrioza* spp., *Parlatoria* spp., *Pemphigus* spp., *Peregrinus maidis*, *Phenacoccus* spp., *Phloeomyzus*

passerinii, *Phorodon humuli*, *Phylloxera* spp., *Pinnaspis aspidistrae*, *Planococcus* spp., *Prosopidopsylla flava*, *Protopulvinaria pyriformis*, *Pseudaulacaspis pentagona*, *Pseudococcus* spp., *Psyllopsis* spp., *Psylla* spp., *Pteromalus* spp., *Pyrilla* spp., *Quadraspidiotus* spp., *Quesada gigas*, *Rastrococcus* spp., *Rhopalosiphum* spp., *Saissetia* spp., *Scaphoideus titanus*, *Schizaphis graminum*, *Selenaspidus articulatus*, *Sogata* spp., *Sogatella furcifera*, *Sogatodes* spp., *Stictocephala festina*, *Siphoninus phillyreae*, *Tenalaphara malayensis*, *Tetragonocephala* spp., *Tinocallis caryaefoliae*, *Tomaspis* spp., *Toxoptera* spp., *Trialeurodes vaporariorum*, *Trioza* spp., *Typhlocyba* spp., *Unaspis* spp., *Viteus vitifolii*, or *Zygina* spp..

In some instances, the insect is of the order Hymenoptera, for example, *Acromyrmex* spp., *Athalia* spp., *Atta* spp., *Diprion* spp., *Hoplocampa* spp., *Lasius* spp., *Monomorium pharaonis*, *Sirex* spp., *Solenopsis invicta*, *Tapinoma* spp., *Urocerus* spp., *Vespa* spp., or *Xeris* spp.

In some instances, the insect is of the order Isopoda, for example, *Armadillidium vulgare*, *Oniscus asellus*, or *Porcellio scaber*.

In some instances, the insect is of the order Isoptera, for example, *Coptotermes* spp., *Cornitermes cumulans*, *Cryptotermes* spp., *Incisitermes* spp., *Microtermes obesi*, *Odontotermes* spp., or *Reticulitermes* spp.

In some instances, the insect is of the order Lepidoptera, for example, *Achroia grisella*, *Acronicta major*, *Adoxophyes* spp., *Aedia leucomelas*, *Agrotis* spp., *Alabama* spp., *Amyelois transitella*, *Anarsia* spp., *Anticarsia* spp., *Argyroploce* spp., *Barathra brassicae*, *Borbo cinnara*, *Bucculatrix thurberiella*, *Bupalus piniarius*, *Busseola* spp., *Cacoecia* spp., *Caloptilia theivora*, *Capua reticulana*, *Carpocapsa pomonella*, *Carposina niponensis*, *Cheimatobia brumata*, *Chilo* spp., *Choristoneura* spp., *Clysia ambiguella*, *Cnaphalocerus* spp., *Cnaphalocrocis medinalis*, *Cnephasia* spp., *Conopomorpha* spp., *Conotrachelus* spp., *Copitarsia* spp., *Cydia* spp., *Dalaca noctuides*, *Diaphania* spp., *Diatraea saccharalis*, *Earias* spp., *Ecdytolopha aurantium*, *Elasmopalpus lignosellus*, *Eldana saccharina*, *Epehestia* spp., *Epinotia* spp., *Epiphyas postvittana*, *Etiella* spp., *Eulia* spp., *Eupoecilia ambiguella*, *Euproctis* spp., *Euxoa* spp., *Feltia* spp., *Galleria mellonella*, *Gracillaria* spp., *Grapholitha* spp., *Hedylepta* spp., *Helicoverpa* spp., *Heliothis* spp., *Hofmannophila pseudospretella*, *Homoeosoma* spp., *Homona* spp., *Hyponomeuta padella*, *Kakivoria flavofasciata*, *Laphygma* spp., *Laspeyresia molesta*, *Leucinodes orbonalis*, *Leucoptera* spp., *Lithocolletis* spp., *Lithophane antennata*, *Lobesia* spp., *Loxagrotis albicosta*, *Lymantria* spp., *Lyonetia* spp., *Malacosoma neustria*, *Maruca testulalis*, *Mamstra brassicae*, *Melanitis leda*, *Mocis* spp., *Monopis obviella*, *Mythimna separata*, *Nemapogon cloacellus*, *Nymphula* spp., *Oiketicus* spp., *Oria* spp., *Orthaga* spp., *Ostrinia* spp., *Oulema oryzae*, *Panolis flammea*, *Parnara* spp., *Pectinophora* spp., *Perileucoptera* spp., *Phthorimaea* spp., *Phyllocnistis citrella*, *Phyllonorycter* spp., *Pieris* spp., *Platynota stultana*, *Plodia interpunctella*, *Plusia* spp., *Plutella xylostella*, *Prays* spp., *Prodenia* spp., *Protoparce* spp., *Pseudaletia* spp., *Pseudaletia unipuncta*, *Pseudoplusia includens*, *Pyrausta nubilalis*, *Rachiplusia nu*, *Schoenobius* spp., *Scirpophaga* spp., *Scirpophaga innotata*, *Scotia segetum*, *Sesamia* spp., *Sesamia inferens*, *Sparganothis* spp., *Spodoptera* spp., *Spodoptera praefica*, *Stathmopoda* spp., *Stomopteryx subsecivella*, *Synanthedon* spp., *Tecia solanivora*, *Thermesia gemmatilis*, *Tinea cloacella*, *Tinea pellionella*, *Tineola bisselliella*, *Tortrix* spp., *Trichophaga tapetzella*, *Trichoplusia* spp., *Tryporyza incertulas*, *Tuta absoluta*, or *Virachola* spp.

In some instances, the insect is of the order Orthoptera or Saltatoria, for example, *Acheta domesticus*, *Dichroplus* spp., *Gryllotalpa* spp., *Hieroglyphus* spp., *Locusta* spp., *Melanoplus* spp., or *Schistocerca gregaria*.

In some instances, the insect is of the order Phthiraptera, for example, *Damalinia* spp.,
5 *Haematopinus* spp., *Linognathus* spp., *Pediculus* spp., *Ptirus pubis*, or *Trichodectes* spp.

In some instances, the insect is of the order Psocoptera for example *Lepinatus* spp., or *Liposcelis* spp.

In some instances, the insect is of the order Siphonaptera, for example, *Ceratophyllus* spp.,
Ctenocephalides spp., *Pulex irritans*, *Tunga penetrans*, or *Xenopsylla cheopsis*.

10 In some instances, the insect is of the order Thysanoptera, for example, *Anaphothrips obscurus*,
Baliothrips biformis, *Drepanothrips reuteri*, *Enneothrips flavens*, *Frankliniella* spp., *Heliothrips* spp.,
Hercinothrips femoralis, *Rhipiphorocthris cruentatus*, *Scirtothrips* spp., *Taeniothrips cardamomi*, or *Thrips* spp.

In some instances, the insect is of the order Zygentoma (=Thysanura), for example,
15 *Ctenolepisma* spp., *Lepisma saccharina*, *Lepismodes inquilinus*, or *Thermobia domestica*.

In some instances, the insect is of the class Symphyla, for example, *Scutigera* spp.

In some instances, the insect is a mite, including but not limited to, Tarsonemid mites, such as
Phytonemus pallidus, *Polyphagotarsonemus latus*, *Tarsonemus bilobatus*, or the like; Eupodid mites,
such as *Penthaleus erythrocephalus*, *Penthaleus major*, or the like; Spider mites, such as *Oligonychus*
20 *shinkajii*, *Panonychus citri*, *Panonychus mori*, *Panonychus ulmi*, *Tetranychus kanzawai*, *Tetranychus*
urticae, or the like; Eriophyid mites, such as *Acaphylla theavagrans*, *Aceria tulipae*, *Aculops lycopersici*,
Aculops pelekassi, *Aculus schlechtendali*, *Eriophyes chibaensis*, *Phyllocoptruta oleivora*, or the like;
Acarid mites, such as *Rhizoglyphus robini*, *Tyrophagus putrescentiae*, *Tyrophagus similis*, or the like;
Bee brood mites, such as *Varroa jacobsoni*, *Varroa destructor* or the like; Ixodides, such as *Boophilus*
25 *microplus*, *Rhipicephalus sanguineus*, *Haemaphysalis longicornis*, *Haemaphysalis flava*, *Haemaphysalis*
campanulata, *Ixodes ovatus*, *Ixodes persulcatus*, *Amblyomma* spp., *Dermacentor* spp., or the like;
Cheyletidae, such as *Cheyletiella yasguri*, *Cheyletiella blakei*, or the like; Demodicidae, such as
Demodex canis, *Demodex cati*, or the like; Psoroptidae, such as *Psoroptes ovis*, or the like;
Sarcoptidae, such as *Sarcoptes scabiei*, *Notoedres cati*, *Knemidocoptes* spp., or the like.

30 In certain instances, the insect is a bean bug (e.g., a *Riptortus* species, e.g., *Riptortus pedestris*).
In some instances, the insect is a stink bug, e.g., a member of the Pentatomidae, e.g., a *Halyomorpha*
species (e.g., *Halyomorpha halys* (Stål)), a *Nezara* species (e.g., *Nezara viridula*), an *Oebalus* species
(e.g., *Oebalus pugnax*), a *Chinavia* species (e.g., *Chinavia hilaris*), an *Euthyrhynchus* species (e.g.,
Euthyrhynchus floridanus), an *Euschistus* species (e.g., *Euschistus servus*), an *Alcaeorrhynchus* species
35 (e.g., *Alcaeorrhynchus grandis*), or a *Podisus* species. In certain instances, the stink bug is the brown
marmorated stink bug (*Halyomorpha halys* (Stål)).

The methods and compositions provided herein may also be used with any insect host that is
considered a vector for a pathogen that is capable of causing disease in animals.

For example, the insect host may include, but is not limited to those with piercing-sucking
40 mouthparts, as found in Hemiptera and some Hymenoptera and Diptera such as mosquitoes, bees,

wasps, midges, lice, tsetse fly, fleas and ants, as well as members of the Arachnidae such as ticks and mites; order, class or family of Acarina (ticks and mites) e.g. representatives of the families Argasidae, Dermanyssidae, Ixodidae, Psoroptidae or Sarcoptidae and representatives of the species *Amblyomma* spp., *Anocenton* spp., *Argas* spp., *Boophilus* spp., *Cheyletiella* spp., *Chorioptes* spp., *Demodex* spp.,
 5 *Dermacentor* spp., *Denmanysus* spp., *Haemophysalis* spp., *Hyalomma* spp., *Ixodes* spp., *Lynxacarus* spp., *Mesostigmata* spp., *Notoednes* spp., *Ornithodoros* spp., *Ornithonyssus* spp., *Otobius* spp., *otodectes* spp., *Pneumonyssus* spp., *Psoroptes* spp., *Rhipicephalus* spp., *Sarcoptes* spp., or *Trombicula* spp.; Anoplura (sucking and biting lice) e.g. representatives of the species *Bovicola* spp., *Haematopinus* spp., *Linognathus* spp., *Menopon* spp., *Pediculus* spp., *Pemphigus* spp., *Phylloxera* spp., or *Solenopotes*
 10 spp.; Diptera (flies) e.g. representatives of the species *Aedes* spp., *Anopheles* spp., *Calliphora* spp., *Chrysomyia* spp., *Chrysops* spp., *Cochliomyia* spp., *Cw/ex* spp., *Culicoides* spp., *Cuterebra* spp., *Dermatobia* spp., *Gastrophilus* spp., *Glossina* spp., *Haematobia* spp., *Haematopota* spp., *Hippobosca* spp., *Hypoderma* spp., *Lucilia* spp., *Lyperosia* spp., *Melophagus* spp., *Oestrus* spp., *Phaenicia* spp., *Phlebotomus* spp., *Phormia* spp., Acari (sarcoptic mange) e.g., *Sarcoptidae* spp., *Sarcophaga* spp.,
 15 *Simulium* spp., *Stomoxys* spp., *Tabanus* spp., *Tannia* spp. or *Zzpu/alpha* spp.; Mallophaga (biting lice) e.g. representatives of the species *Damalina* spp., *Felicola* spp., *Heterodoxus* spp. or *Trichodectes* spp.; or Siphonaptera (wingless insects) e.g. representatives of the species *Ceratophyllus* spp., *Xenopsylla* spp.; Cimicidae (true bugs) e.g. representatives of the species *Cimex* spp., *Tritominae* spp., *Rhodnius* spp., or *Triatoma* spp.

20 In some instances, the insect is a blood-sucking insect from the order Diptera (e.g., suborder Nematocera, e.g., family Colicidae). In some instances, the insect is from the subfamilies Culicinae, Corethrinae, Ceratopogonidae, or Simuliidae. In some instances, the insect is of a *Culex* spp., *Theobaldia* spp., *Aedes* spp., *Anopheles* spp., *Aedes* spp., *Forcipomyia* spp., *Culicoides* spp., or *Helea* spp. In certain instances, the insect is a mosquito. In certain instances, the insect is a tick. In certain
 25 instances, the insect is a mite. In certain instances, the insect is a biting louse.

Alternatively, the insect may be a beneficial insect, such as a plant pollinator, a natural competitor of a pest, or a producer of useful substances for humans or animals. The term beneficial insect refers to an insect that confers a benefit (e.g., economical and/or ecological) to humans, animals, an ecosystem, and/or the environment. For example, the insect may be an insect that is involved in the production of a
 30 commercial product, including, but not limited to, insects cultivated to produce food (e.g., honey from honey bees, e.g., *Apis mellifera*), materials (such as silk from *Bombyx mori*), and/or substances (e.g., lac from *Laccifer lacca* or pigments from *Dactylopius coccus* and *Cynipidae*). In some instances, the insect may be harvested, or one or more parts of the insect may be harvested, and processed for use in the manufacture of a consumable product, including any product safe for human or animal consumption (e.g.,
 35 ingestion). Additionally, the insect may include insects that are used in agricultural applications, including insects that aid in the pollination of crops, spreading seeds, or pest control. Further, in some instances, the insect may be an insect that is useful for waste disposal and/or organic recycling (e.g., earthworms, termites, or *Diptera* larvae). The insect may be one that has its native (i.e., unaltered) microbiota.

Alternatively, the insect may be one that has received probiotic compositions prior to or during delivery of the bacterial colonization-disrupting agent.

In some instances, the insect may be harvested and distributed in a whole form (e.g., as the whole, unprocessed insect) as a consumable product. In some instances, the whole harvested insect is processed (e.g., ground up) and distributed as a consumable product. Alternatively, one or more parts of the insect (e.g., one or more body parts or one or more substances) may be extracted from the insect for use in the manufacture of a consumable product. In some instances, the insect may be a moth, butterfly, fly, cricket, grasshopper, locust, spider, or beetle. In some instances, an insect species is selected based upon their natural nutritional profile or nutrient content. Examples of nutrients include vitamins, carbohydrates, amino acids, polypeptides, or fatty acids.

In some instances, the insect produces a useable product (e.g., honey, silk, beeswax, or shellac). In some instances, the insect is a bee. Exemplary bee genera include, but are not limited to *Apis*, *Bombus*, *Trigona*, and *Osmia*. In some instances, the bee is a honeybee (e.g., an insect belonging to the genus *Apis*). In some instances, the honeybee is the species *Apis mellifera* (the European or Western honey bee), *Apis cerana* (the Asiatic, Eastern, or Himalayan honey bee), *Apis dorsata* (the “giant” honey bee), *Apis florea* (the “red dwarf” honey bee), *Apis andreniformis* (the “black dwarf” honey bee), or *Apis nigrocincta*. In some instances, the insect is a silkworm. The silkworm may be a species in the family *Bombycidae* or *Saturniidae*. In some instances, the silkworm is *Bombyx mori*. In some instances, the insect is a lac bug. The lac bug may be a species in the family *Kerriidae*. In some instances, the lac bug is *Kerria lacca*.

In some instances, the insect aids in pollination of a plant (e.g., bees, beetles, wasps, flies, butterflies, or moths). In some examples, the insect aiding in pollination of a plant is beetle. In some instances, the beetle is a species in the family *Buprestidae*, *Cantharidae*, *Cerambycidae*, *Chrysomelidae*, *Cleridae*, *Coccinellidae*, *Elateridae*, *Melandryidae*, *Meloidae*, *Melyridae*, *Mordellidae*, *Nitidulidae*, *Oedemeridae*, *Scarabaeidae*, or *Staphylinidae*. In some instances, the insect aiding in pollination of a plant is a butterfly or moth (e.g., *Lepidoptera*). In some instances, the butterfly or moth is a species in the family *Geometridae*, *Hesperiidae*, *Lycaenidae*, *Noctuidae*, *Nymphalidae*, *Papilionidae*, *Pieridae*, or *Sphingidae*. In some instances, the insect aiding in pollination of a plant is a fly (e.g., *Diptera*). In some instances, the fly is in the family *Anthomyiidae*, *Bibionidae*, *Bombyliidae*, *Calliphoridae*, *Cecidomyiidae*, *Certopogonidae*, *Chironomidae*, *Conopidae*, *Culicidae*, *Dolichopodidae*, *Empididae*, *Ephydriidae*, *Lonchopteridae*, *Muscidae*, *Mycetophilidae*, *Phoridae*, *Simuliidae*, *Stratiomyidae*, or *Syrphidae*. In some instances, the insect aiding in pollination is an ant (e.g., *Formicidae*), sawfly (e.g., *Tenthredinidae*), or wasp (e.g., *Sphecidae* or *Vespidae*). In some instances, the insect aiding in pollination of a plant is a bee. In some instances, the bee is in the family *Andrenidae*, *Apidae*, *Colletidae*, *Halictidae*, or *Megachilidae*.

In some instances, the insect aids in pest control. For example, the insect aiding in pest control may be a species belonging to the family *Braconidae* (e.g., parasitoid wasps), *Carabidae* (e.g., ground beetles), *Chrysopidae* (e.g., green lacewings), *Coccinellidae* (e.g., ladybugs), *Hemerobiidae* (e.g., brown lacewings), *Ichneumonidae* (e.g., ichneumon wasps), *Lampyridae* (e.g., fireflies), *Mantidae* (e.g., praying mantises), *Myrmeleontidae* (e.g., antlions), *Odonata* (e.g., dragonflies and damselflies), or *Syrphidae*

(e.g., hoverfly). In other instances, the insect aiding in pest control is an insect that competes with an insect that is considered a pest (e.g., an agricultural pest). For example, the Mediterranean fruit fly, *Ceratitis capitata* is a common pest of fruits and vegetables worldwide. One way to control *C. capitata* is to release the sterilized male insect into the environment to compete with wild males to mate the females.

In these instances, the insect may be a sterilized male belonging to a species that is typically considered a pest.

In some instances, the insect aids in degradation of waste or organic material. In some examples, the insect aiding in degradation of waste or organic material belongs to *Coleoptera* or *Diptera*. In some instances, the insect belonging to *Diptera* is in the family *Calliphoridae*, *Curtonotidae*, *Drosophilidae*, *Fanniidae*, *Heleomyzidae*, *Milichiidae*, *Muscidae*, *Phoridae*, *Psychodidae*, *Scatopsidae*, *Sepsidae*, *Sphaeroceridae*, *Stratiomyidae*, *Syrphidae*, *Tephritidae*, or *Ulidiidae*. In some instances, the insect belonging to *Coleoptera* is in the family *Carabidae*, *Hydrophilidae*, *Phalacaridae*, *Ptiliidae*, or *Staphylinidae*.

In particular instances, the bacterial colonization-disrupting agents disclosed herein may be used to increase the fitness of a honeybee.

ii. Decreasing Insect Fitness

In instances where the bacterial colonization-disrupting agent disrupts colonization of bacteria beneficial to an insect, the present methods are effective to decrease the fitness of the insect. For example, a bacterial colonization-disrupting agent as described herein can be contacted with an insect in an amount and for a time sufficient to: (a) reach a target level (e.g., a predetermined or threshold level) of concentration inside a target insect (e.g., inside the gut, or a cell (e.g., bacteriocyte) or organ (e.g., bacteriome or crypt) therein); and (b) decrease the fitness of the target insect. The decrease in insect fitness may manifest as a deterioration or decline in the physiology of the insect (e.g., as measured by survival) as a consequence of administration of the bacterial colonization-disrupting agent. The fitness of the insect may be measured by one or more parameters, including, but not limited to, reproductive rate, lifespan, mobility, fecundity, body weight, metabolic rate or activity, or survival in comparison to an insect to which the bacterial colonization-disrupting agent has not been administered.

For example, the methods or compositions provided herein may be effective to decrease the overall health of the insect or to decrease the overall survival of the insect. In some instances, the decreased survival of the insect is about 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or more than 100% relative to a reference level (e.g., a level found in an insect that does not receive a bacterial colonization-disrupting agent). In some instances, the methods and compositions are effective to decrease insect reproduction (e.g., reproductive rate) in comparison to an insect to which the bacterial colonization-disrupting agent has not been administered. In some instances, the methods and compositions are effective to decrease other physiological parameters, such as mobility, body weight, life span, fecundity, or metabolic rate, by about 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or greater than 100% relative to a reference level (e.g., a level found in an insect that does not receive a bacterial colonization-disrupting agent).

In some instances, the decrease in insect fitness may manifest as a decrease in the production of one or more nutrients in the insect (e.g., vitamins, carbohydrates, amino acids, or polypeptides) in comparison to an insect to which the bacterial colonization-disrupting agent has not been administered. In some instances, the methods or compositions provided herein may be effective to decrease the production of nutrients in the insect (e.g., vitamins, carbohydrates, amino acids, or polypeptides) by about 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or greater than 100% relative to a reference level (e.g., a level found in an insect that does not receive a bacterial colonization-disrupting agent). In some instances, the methods or compositions provided herein may decrease nutrients in the insect by decreasing the production of nutrients by one or more microorganisms (e.g., endosymbiont) in the insect in comparison to an insect to which the bacterial colonization-disrupting agent has not been administered.

In some instances, the decrease in insect fitness may manifest as an increase in the insect's sensitivity to a pesticidal agent and/or a decrease in the insect's resistance to a pesticidal agent in comparison to an insect to which the bacterial colonization-disrupting agent has not been administered. In some instances, the methods or compositions provided herein may be effective to increase the insect's sensitivity to a pesticidal agent by about 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or greater than 100% relative to a reference level (e.g., a level found in an insect that does not receive a bacterial colonization-disrupting agent). The pesticidal agent may be any pesticidal agent known in the art, including insecticidal agents. In some instances, the methods or compositions provided herein may increase the insect's sensitivity to a pesticidal agent by decreasing the insect's ability to metabolize or degrade the pesticidal agent into usable substrates.

In some instances, the decrease in insect fitness may manifest as an increase in the insect's sensitivity to an allelochemical agent and/or a decrease in the insect's resistance to an allelochemical agent in comparison to an insect to which the bacterial colonization-disrupting agent has not been administered. In some instances, the methods or compositions provided herein may be effective to decrease the insect's resistance to an allelochemical agent by about 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or greater than 100% relative to a reference level (e.g., a level found in an insect that does not receive a bacterial colonization-disrupting agent). In some instances, the allelochemical agent is caffeine, soyacystatin N, monoterpenes, diterpene acids, or phenolic compounds. In some instances, the methods or compositions provided herein may increase the insect's sensitivity to an allelochemical agent by decreasing the insect's ability to metabolize or degrade the allelochemical agent into usable substrates in comparison to an insect to which the bacterial colonization-disrupting agent has not been administered.

In some instances, the methods or compositions provided herein may be effective to decrease the insect's resistance to parasites or pathogens (e.g., fungal, bacterial, or viral pathogens or parasites) in comparison to an insect to which the bacterial colonization-disrupting agent has not been administered. In some instances, the methods or compositions provided herein may be effective to decrease the insect's resistance to a pathogen or parasite (e.g., fungal, bacterial, or viral pathogens; or parasitic mites) by about 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or greater than 100%

relative to a reference level (e.g., a level found in an insect that does not receive a bacterial colonization-disrupting agent).

In some instances, the decrease in insect fitness may manifest as other fitness disadvantages, such as decreased tolerance to certain environmental factors (e.g., a high or low temperature tolerance), decreased ability to survive in certain habitats, or a decreased ability to sustain a certain diet in comparison to an insect to which the bacterial colonization-disrupting agent has not been administered. In some instances, the methods or compositions provided herein may be effective to decrease insect fitness in any plurality of ways described herein. Further, the bacterial colonization-disrupting agent may decrease insect fitness in any number of insect classes, orders, families, genera, or species (e.g., 1 insect species, 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100, 150, 200, 250, 500, or more insect species). In some instances, the bacterial colonization-disrupting agent acts on a single insect class, order, family, genus, or species. Insect fitness may be evaluated using any standard methods in the art. In some instances, insect fitness may be evaluated by assessing an individual insect. Alternatively, insect fitness may be evaluated by assessing an insect population.

iii. Increasing Insect Fitness

In instances where the bacterial colonization-disrupting agent disrupts colonization of bacteria harmful to an insect (e.g., pathogenic bacteria), the present methods are effective to confer a variety of fitness benefits to insects. For example, the increase in insect fitness may manifest as an improvement in the physiology of the insect (e.g., improved health or survival, or increased nutritional profile) as a consequence of administration of the bacterial colonization-disrupting agent. The fitness of the insect may be measured by one or more parameters, including, but not limited to, reproductive rate, lifespan, mobility, fecundity, body weight, nutritional profile, metabolic rate or activity, or survival in comparison to an insect to which the bacterial colonization-disrupting agent has not been administered. In some instances, the bacterial colonization-disrupting agent may increase the fitness of the insect in a transient manner. Alternatively, the bacterial colonization-disrupting agent may increase the fitness of the insect for the duration of the insect's lifespan.

For example, the methods or compositions provided herein may be effective to improve the overall health of the insect or to improve the overall survival of the insect in comparison to an insect to which the bacterial colonization-disrupting agent has not been administered. In some instances, the improved survival of the insect is about 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or greater than 100% greater relative to a reference level (e.g., a level found in an insect that does not receive a bacterial colonization-disrupting agent).

In some instances, the methods and compositions are effective to increase insect reproduction (e.g., reproductive rate) in comparison to an insect to which the bacterial colonization-disrupting agent has not been administered. In some instances, the methods and compositions are effective to increase other physiological parameters, such as mobility, body weight, life span, fecundity, or metabolic rate, by about 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or greater than 100% relative to a reference level (e.g., a level found in an insect that does not receive a bacterial colonization-disrupting agent).

In some instances, the increase in insect fitness may manifest as an increased production of a product generated by said insect in comparison to an insect to which the bacterial colonization-disrupting agent has not been administered. In some instances, the methods or compositions provided herein may be effective to increase the production of a product generated by the insect, as described herein (e.g., honey, beeswax, beebread, propolis, silk, or lac), by about 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or greater than 100% relative to a reference level (e.g., a level found in an insect that does not receive a bacterial colonization-disrupting agent).

For example, the methods or compositions provided herein may be effective to improve the nutritional profile of the insect or to improve the overall nutrient content (e.g., vitamin, carbohydrate, amino acid, polypeptide, or fatty acid content) of the insect in comparison to an insect to which the bacterial colonization-disrupting agent has not been administered. In some instances, the improved nutritional profile or nutrient content of the insect is about 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or greater than 100% greater relative to a reference level (e.g., a level found in an insect that does not receive a bacterial colonization-disrupting agent).

In some instances, the increase in insect fitness may manifest as an increase in the frequency or efficacy of a desired activity carried out by the insect (e.g., pollination, predation on pests, seed spreading, or breakdown of waste or organic material) in comparison to an insect to which the bacterial colonization-disrupting agent has not been administered. In some instances, the methods or compositions provided herein may be effective to increase the frequency or efficacy of a desired activity carried out by the insect (e.g., pollination, predation on pests, seed spreading, or breakdown of waste or organic material) by about 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or greater than 100% relative to a reference level (e.g., a level found in an insect that does not receive a bacterial colonization-disrupting agent).

In some instances, the increase in insect fitness may manifest as an increase in the production of one or more nutrients in the insect (e.g., vitamins, carbohydrates, amino acids, or polypeptides) in comparison to an insect to which the bacterial colonization-disrupting agent has not been administered. In some instances, the methods or compositions provided herein may be effective to increase the production of nutrients in the insect (e.g., vitamins, carbohydrates, amino acids, or polypeptides) by about 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or greater than 100% relative to a reference level (e.g., a level found in an insect that does not receive a bacterial colonization-disrupting agent). In some instances, the methods or compositions provided herein may increase nutrients in the insect by increasing the production of nutrients by one or more microorganisms (e.g., endosymbiont) in the insect.

In some instances, the increase in insect fitness may manifest as a decrease in the insect's sensitivity to a pesticidal agent and/or an increase in the insect's resistance to a pesticidal agent in comparison to an insect to which the bacterial colonization-disrupting agent has not been administered. In some instances, the methods or compositions provided herein may be effective to decrease the insect's sensitivity to a pesticidal agent by about 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or greater than 100% relative to a reference level (e.g., a level found in an insect that does not receive a bacterial colonization-disrupting agent). In some instances, the insect's sensitivity to the

pesticidal agent is altered by administering a bacterial colonization-disrupting agent that degrades a pesticidal agent (e.g., pesticidal-degrading bacteria, e.g., a neonicotinoid-degrading bacteria or an organophosphorus insecticide-degrading bacteria). The pesticidal agent may be any pesticidal agent known in the art, including insecticidal agents. In some instances, the pesticidal agent is a neonicotinoid (e.g., imidacloprid) or an organophosphorus insecticide (e.g., a phosphorothioate, e.g., fenitrothion). In some instances, the methods or compositions provided herein may decrease the insect's sensitivity to a pesticidal agent by increasing the insect's ability to metabolize or degrade the pesticidal agent into usable substrates.

In some instances, the increase in insect fitness may manifest as a decrease in the insect's sensitivity to an allelochemical agent and/or an increase in the insect's resistance to an allelochemical agent in comparison to an insect to which the bacterial colonization-disrupting agent has not been administered. In some instances, the methods or compositions provided herein may be effective to increase the insect's resistance to an allelochemical agent by about 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or greater than 100% relative to a reference level (e.g., a level found in an insect that does not receive a bacterial colonization-disrupting agent). In some instances, the allelochemical agent is caffeine, soyacystatin N, monoterpenes, diterpene acids, or phenolic compounds. In some instances, the methods or compositions provided herein may decrease the insect's sensitivity to an allelochemical agent by increasing the insect's ability to metabolize or degrade the allelochemical agent into usable substrates.

In some instances, the methods or compositions provided herein may be effective to increase the insect's resistance to parasites or pathogens (e.g., fungal, bacterial, or viral pathogens; or parasitic mites (e.g., *Varroa destructor* mite in honeybees)) in comparison to an insect to which the bacterial colonization-disrupting agent has not been administered. In some instances, the methods or compositions provided herein may be effective to increase the insect's resistance to a pathogen or parasite (e.g., fungal, bacterial, or viral pathogens; or parasitic mites (e.g., *Varroa destructor* mite in honeybees)) by about 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or greater than 100% relative to a reference level (e.g., a level found in an insect that does not receive a bacterial colonization-disrupting agent).

In some instances, the increase in insect fitness may manifest as other fitness advantages, such as improved tolerance to certain environmental factors (e.g., a high or low temperature tolerance), improved ability to survive in certain habitats, or an improved ability to sustain a certain diet (e.g., an improved ability to metabolize soy vs corn) in comparison to an insect to which the bacterial colonization-disrupting agent has not been administered. In some instances, the methods or compositions provided herein may be effective to increase insect fitness in any plurality of ways described herein. Further, the bacterial colonization-disrupting agent may increase insect fitness in any number of insect classes, orders, families, genera, or species (e.g., 1 insect species, 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100, 150, 200, 250, 500, or more insect species). In some instances, the bacterial colonization-disrupting agent acts on a single insect class, order, family, genus, or species.

In some embodiments of the methods herein, the method is effective to increase the fitness of the insect relative to an untreated insect. In some embodiments, the increase in fitness is an increase in

survival, life span, reproductive ability, reproductive rate, reproductive period, number of eggs laid, number of hatched eggs, developmental rate, adult emergence rate, mobility, body size (e.g., body length, body mass, or body width (e.g., pronotal width of a stink bug)), cuticle (exoskeleton) thickness, pigmentation, or metabolic rate of the insect relative to an untreated insect. . In some embodiments, the increase in fitness is an increase in vitellogenin protein in the insect relative to an untreated insect. In some embodiments, the increase in fitness is an increase in vitellogenin gene expression in the insect relative to an untreated insect.

Insect fitness may be evaluated using any standard methods in the art. In some instances, insect fitness may be evaluated by assessing an individual insect. Alternatively, insect fitness may be evaluated by assessing an insect population. For example, an increase in insect fitness may manifest as an increase in successful competition against other insects, thereby leading to an increase in the size of the insect population.

iv. Insects in Agriculture

By decreasing the fitness of insects, such as agricultural pests (e.g., stink bugs or bean bugs), that are harmful to plants, or increasing the fitness of beneficial insects (e.g., pollinating insects, e.g., bees) the bacterial colonization-disrupting agents provided herein may be effective to promote the growth of plants that are typically harmed by said insects. The bacterial colonization-disrupting agent may be delivered to the plant using any of the formulations and delivery methods described herein, in an amount and for a duration effective to decrease insect fitness and thereby benefit the plant, e.g., increase crop growth, increase crop yield, decrease pest infestation, and/or decrease damage to plants. This may or may not involve direct application of the bacterial colonization-disrupting agent to the plant. For example, in instances where the primary insect habitat is different than the region of plant growth, the bacterial colonization-disrupting agent may be applied to either the primary insect habitat, the plants of interest, or a combination of both.

In some instances, the plant may be an agricultural food crop, such as a cereal, grain, legume, fruit, or vegetable crop, or a non-food crop, e.g., grasses, flowering plants, cotton, hay, hemp. The compositions described herein may be delivered to the crop any time prior to or after harvesting the cereal, grain, legume, fruit, vegetable, or other crop. Crop yield is a measurement often used for crop plants and is normally measured in metric tons per hectare (or kilograms per hectare). Crop yield can also refer to the actual seed generation from the plant. In some instances, the bacterial colonization-disrupting agent may be effective to increase crop yield (e.g., increase metric tons of cereal, grain, legume, fruit, or vegetable per hectare and/or increase seed generation) by about 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or more in comparison to a reference level (e.g., a crop to which the bacterial colonization-disrupting agent has not been administered).

In some instances, the plant (e.g., crop) may be at risk of developing a pest infestation (e.g., by an insect) or may have already developed a pest infestation. The methods and compositions described herein may be used to reduce or prevent pest infestation in such crops by reducing the fitness of insects that infest the plants. In some instances, the bacterial colonization-disrupting agent may be effective to reduce crop infestation (e.g., reduce the number of plants infested, reduce the pest population size,

reduce damage to plants) by about 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or more in comparison to a reference level (e.g., a crop to which the bacterial colonization-disrupting agent has not been administered). In other instances, the bacterial colonization-disrupting agent may be effective to prevent or reduce the likelihood of crop infestation by about 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or more in comparison to a reference level (e.g., a crop to which the bacterial colonization-disrupting agent has not been administered).

Any suitable plant tissues may benefit from the compositions and methods described herein, including, but not limited to, somatic embryos, pollen, leaves, stems, calli, stolons, microtubers, and shoots. The methods described herein may include treatment of angiosperm and gymnosperm plants such as acacia, alfalfa, apple, apricot, artichoke, ash tree, asparagus, avocado, banana, barley, beans, beet, birch, beech, blackberry, blueberry, broccoli, brussels sprouts, cabbage, canola, cantaloupe, carrot, cassava, cauliflower, cedar, a cereal, celery, chestnut, cherry, Chinese cabbage, citrus, clemintine, clover, coffee, corn, cotton, conifers, cowpea, cucumber, cypress, eggplant, elm, endive, eucalyptus, fava beans, fennel, figs, fir, fruit and nut trees, geranium, grape, grapefruit, groundnuts, ground cherry, gum hemlock, hemp, hickory, kale, kiwifruit, kohlrabi, larch, lettuce, leek, lemon, lime, locust, pine, maidenhair, maize, mango, maple, melon, millet, mushroom, mustard, nuts, oak, oats, okra, onion, orange, an ornamental plant or flower or tree, papaya, palm, parsley, parsnip, pea, peach, peanut, pear, peat, pepper, persimmon, pigeon pea, pine, pineapple, plantain, plum, pomegranate, potato, pumpkin, radicchio, radish, rapeseed, raspberry, rice, rye, sorghum, sallow, soybean, spinach, spruce, squash, strawberry, sugarbeet, sugarcane, sunflower, sweet potato, sweet corn, tangerine, tea, tobacco, tomato, trees, triticale, turf grasses, turnips, a vine, walnut, watercress, watermelon, wheat, yams, yew, and zucchini.

v. Insects as Disease Vectors

By decreasing the fitness of host insects that carry animal pathogens, the bacterial colonization-disrupting agents provided herein are effective to reduce the spread of vector-borne diseases. The bacterial colonization-disrupting agent may be delivered to the insects using any of the formulations and delivery methods described herein, in an amount and for a duration effective to reduce transmission of the disease, e.g., reduce vertical or horizontal transmission between vectors and/or reduce transmission to animals. For example, the bacterial colonization-disrupting agent described herein may reduce vertical or horizontal transmission of a vector-borne pathogen by about 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or more in comparison to a host organism to which the bacterial colonization-disrupting agent has not been administered. As an another example, the bacterial colonization-disrupting agent described herein may reduce vectorial competence of an insect vector by about 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or more in comparison to a host organism to which the bacterial colonization-disrupting agent has not been administered.

Non-limiting examples of diseases that may be controlled by the compositions and methods provided herein include diseases caused by Togaviridae viruses (e.g., Chikungunya, Ross River fever, Mayaro, Onyon-nyong fever, Sindbis fever, Eastern equine encephalomyelitis, Western equine encephalomyelitis, Venezuelan equine encephalomyelitis, or Barmah forest); diseases caused by

Flaviviridae viruses (e.g., Dengue fever, Yellow fever, Kyasanur Forest disease, Omsk haemorrhagic fever, Japanese encephalitis, Murray Valley encephalitis, Rocio, St. Louis encephalitis, West Nile encephalitis, or Tick-borne encephalitis); diseases caused by Bunyaviridae viruses (e.g., Sandly fever, Rift Valley fever, La Crosse encephalitis, California encephalitis, Crimean-Congo haemorrhagic fever, or Oropouche fever); disease caused by Rhabdoviridae viruses (e.g., Vesicular stomatitis); disease caused by Orbiviridae (e.g., Bluetongue); diseases caused by bacteria (e.g., Plague, Tularemia, Q fever, Rocky Mountain spotted fever, Murine typhus, Boutonneuse fever, Queensland tick typhus, Siberian tick typhus, Scrub typhus, Relapsing fever, or Lyme disease); or diseases caused by protozoa (e.g., Malaria, African trypanosomiasis, Nagana, Chagas disease, Leishmaniasis, Piroplasmosis, Bancroftian filariasis, or Brugian filariasis).

vi. Application Methods

An insect described herein can be exposed to a composition including the bacterial colonization-disruption agent herein in any suitable manner that permits delivering or administering the composition to the insect or to an egg or egg mass from which the insect will hatch. The bacterial colonization-disrupting agent may be delivered either alone or in combination with other active or inactive substances and may be applied by, for example, spraying, injection (e.g., microinjection), through plants, pouring, dipping, in the form of concentrated liquids, gels, solutions, suspensions, sprays, powders, pellets, briquettes, bricks and the like, formulated to deliver an effective concentration of the bacterial colonization-disrupting agent. Amounts and locations for application of the compositions described herein are generally determined by the habitat of the insect, the lifecycle stage at which the insect can be targeted by the bacterial colonization-disrupting agent, the site where the application is to be made, and the physical and functional characteristics of the bacterial colonization-disrupting agent.

In some instances, the composition is sprayed directly onto a plant e.g., crops, by e.g., backpack spraying, aerial spraying, crop spraying/dusting etc. In instances where the bacterial colonization-disrupting agent is delivered to a plant, the plant receiving the bacterial colonization-disrupting agent may be at any stage of plant growth. For example, formulated bacterial colonization-disrupting agents can be applied as a seed-coating or root treatment in early stages of plant growth or as a total plant treatment at later stages of the crop cycle. In some instances, the bacterial colonization-disrupting agent may be applied as a topical agent to a plant. In some instances, the composition is sprayed or applied onto an egg or an egg mass from which the insect will hatch.

Further, the bacterial colonization-disrupting agent may be applied (e.g., in the soil in which a plant grows, or in the water that is used to water the plant) as a systemic agent that is absorbed and distributed through the tissues of a plant. In some instances, plants or food organisms may be genetically transformed to express the bacterial colonization-disrupting agent. For example, in some instances, the bacterial colonization-disrupting agent is delivered in a modified plant for ingestion by the insect. Alternatively, the bacterial colonization-disrupting agent may be delivered in an attenuated bacteria or modified bacteria for ingestion by the insect.

Delayed or continuous release can also be accomplished by coating the bacterial colonization-disrupting agent or a composition with the bacterial colonization-disrupting agent(s) with a dissolvable or

bioerodable coating layer, such as gelatin, which coating dissolves or erodes in the environment of use, to then make the bacterial colonization-disrupting agent available, or by dispersing the agent in a dissolvable or erodable matrix. Such continuous release and/or dispensing means devices may be advantageously employed to consistently maintain an effective concentration of one or more of the bacterial colonization-disrupting agents described herein.

In some instances, the bacterial colonization-disrupting agent may be recommended for field application as an amount of agent per hectare (g/ha or kg/ha) or the amount of active ingredient (e.g., bacterial colonization-disrupting agent) per hectare (kg a.i./ha or g a.i./ha). Bacterial colonization-disrupting agents of the invention can be applied at a variety of amounts per hectare, for example at about 0.0001 , 0.001, 0.005, 0.01, 0.1 , 1 , 2, 10, 100, 1 ,000, 2,000, 5,000 (or any range between about 0.0001 and 5,000) kg/ha. For example, about 0.0001 to about 0.01 , about 0.01 to about 10, about 10 to about 1,000, about 1 ,000 to about 5,000 kg/ha.

In some instances where the bacterial colonization-disrupting agent is delivered to an insect or an egg or egg mass produced by the insect, the insect, egg, or egg mass can be simply "soaked" or "sprayed" with a solution including the bacterial colonization-disrupting agent. In other instances, the bacterial colonization-disrupting agents may be administered to the insect by oral ingestion, but may also be administered by means which permit penetration through the cuticle or penetration of the insect's respiratory system. For example, the bacterial colonization-disrupting agent can be linked to a food component (e.g., comestible) of the insect for ease of delivery and/or in order to increase uptake of the bacterial colonization-disrupting agent by the insect. Methods for oral introduction include, for example, directly mixing a bacterial colonization-disrupting agent with the insect's food, spraying the bacterial colonization-disrupting agent in the insect's habitat or field, as well as engineered approaches in which a species that is used as food is engineered to express a bacterial colonization-disrupting agent, then fed to the insect to be affected. In some instances, for example, the bacterial colonization-disrupting agent can be incorporated into, or overlaid on the top of, the insect's diet. For example, the bacterial colonization-disrupting agent can be sprayed onto a field of crops which an insect inhabits.

The bacterial colonization-disrupting agent can also be incorporated into the medium in which the insect grows, lives, reproduces, feeds, or infests. For example, a bacterial colonization-disrupting agent can be incorporated into a food container, feeding station, protective wrapping, or a hive. For some applications the bacterial colonization-disrupting agent may be bound to a solid support for application in powder form or in a trap or feeding station. As an example, for applications where the composition is to be used in a trap or as bait for a particular insect, the compositions may also be bound to a solid support or encapsulated in a time-release material.

II. Bacterial Colonization-Disrupting Agents

A variety of bacterial colonization-disrupting agents may be used in accordance with the present methods. Bacterial colonization-disrupting agents can be differentiated either by their chemical composition, or by their physiological functions. For example, the agent may alter properties of the bacteria (e.g., bacterial metabolism or bacterial cell surface) and/or the insect gut, such that the bacteria can no longer adhere, associate with, or propagate in the gut of the insect. Exemplary bacterial

colonization-disrupting agents and methods of screening for such agents are further described, below. Colonization of the insect (e.g., colonization of a bacteriome of the insect, the gut of the insect, or the v4 region of the gut of the insect) may be decreased by between 1% and 100%, e.g., decreased by at least 1%, at least 2%, at least 3%, at least 4%, at least 5%, at least 6%, at least 7%, at least 8%, at least 9%,
 5 at least 10%, at least 15%, at least 20%, at least 25%, at least 30%, at least 35%, at least 40%, at least 45%, at least 50%, at least 55%, at least 60%, at least 65%, at least 70%, at least 75%, at least 80%, at least 85%, at least 90%, at least 95%, or decreased by 100%.

The size (e.g., area or mass) of a cell, organ, region, or tissue of the insect that may be colonized by a bacterium (e.g., a bacteriocyte or a v4 region of the gut) may be decreased as a result of treatment
 10 with a colonization-disrupting agent, e.g., decreased by between 1% and 100%, e.g., decreased by at least 1%, at least 2%, at least 3%, at least 4%, at least 5%, at least 6%, at least 7%, at least 8%, at least 9%, at least 10%, at least 15%, at least 20%, at least 25%, at least 30%, at least 35%, at least 40%, at least 45%, at least 50%, at least 55%, at least 60%, at least 65%, at least 70%, at least 75%, at least 80%, at least 85%, at least 90%, at least 95%, or decreased by 100%. In some examples, the size of the
 15 cell, organ, region, or tissue of the insect that may be colonized (e.g., a bacteriocyte or a v4 region of the gut) is used as a measure of colonization; for example, a smaller size of the cell, organ, region, or tissue may indicate a greater decrease in colonization.

i. Classes of Bacterial Colonization-Disrupting Agents

20 In some instances, the bacterial colonization-disrupting agent alters (e.g., inhibits) bacterial metabolism. Bacteria residing in the gut of an insect depend on production of certain nutrients to thrive in the insect, or a cell or organ therein. For example, polyhydroxyalkanoate (PHA) is a linear polyester that is synthesized and used as storage compounds of carbon and energy sources. Generally, the biosynthesis of PHA granules is promoted when bacteria face stressful environments, such as nutrition-
 25 deficient conditions. As described in Example 1, synthesis of PHA is one exemplary bacterial metabolic pathway that can be targeted to disrupt bacterial colonization of the insect gut (e.g., such as colonization of the gut of *Riptortus pedestris* by *Burkholderia*).

Accordingly, in some instances, the bacterial colonization-disrupting agent is a PHA synthesis inhibitor. PHA granules are mainly synthesized from acetyl coenzyme A (acetyl-CoA) by three different
 30 enzymes, such as the products of *phaA* (ketothiolase), *phaB* (acetyl-CoA reductase), and *phaC* (PHA synthase). The surfaces of PHA granules are surrounded by various proteins, such as PhaP (a surface protein of PHA granules; phasin), PhaR (a negative regulator of PhaP), and PhaZ (PHA depolymerase). In some instances, the bacterial colonization-disrupting agent is an inhibitor of a gene involved in PHA biosynthesis, such as *phaA*, *phaB*, *phaC*, *phaP*, *phaR*, or *phaZ* gene expression. In other instances, the
 35 bacterial colonization-disrupting agent binds a protein involved in PHA biosynthesis, such as PhaA, PhaB, PhaC, PhaP, PhaR, or PhaZ. In certain instances the PHA synthesis inhibitor is vanillin or an analog thereof (Table 1; Table 2). In other instances, the PHA synthesis inhibitor is levulinic acid or an analog thereof, e.g., an analog as provided in Table 4; acrylic acid or an analog thereof, e.g., an analog as provided in Table 5; or 2-bromooctanoic acid (2BA) or an analog thereof, e.g., an analog as provided in

Table 6. In still other instances, the PHA synthesis inhibitor is furfural, 2,3- butanedione, 3-(3,4-dichlorophenyl)-1,1-dimethylurea (DCMU), or 4-pentenoic acid.

Table 1. Analogs of vanillin

Compound Number	Compound Name
1	3-Hydroxy-4-methoxybenzaldehyde
2	3,4-Dimethoxybenzaldehyde
3	3-(2-Methoxyphenoxy)benzaldehyde
4	3,4-Dihydroxy-5-methoxybenzaldehyde
5	3-Hydroxy-4,5-dimethoxybenzaldehyde
6	4-Hydroxy-3,5-dimethoxybenzaldehyde
7	3,4,5-Trimethoxybenzaldehyde
8	Oxanthrene-2,8-dicarbaldehyde
9	4-(2-Methoxyphenoxy)benzaldehyde
10	3'-Hydroxy-4'-methoxy[1,1'-biphenyl]-4-carbaldehyde
11	4'-Hydroxy-3'-methoxy[1,1'-biphenyl]-4-carbaldehyde
12	3'-Hydroxy-4'-methoxy[1,1'-biphenyl]-3-carbaldehyde
13	4'-Hydroxy-3'-methoxy[1,1'-biphenyl]-3-carbaldehyde
14	4-Hydroxy-5-methoxy-2-methylbenzaldehyde
15	5-Hydroxy-4-methoxy-2-methylbenzaldehyde
16	3',4'-Dimethoxy[1,1'-biphenyl]-4-carbaldehyde
17	3',4'-Dimethoxy[1,1'-biphenyl]-3-carbaldehyde
18	4,5-Dimethoxybenzene-1,2-dicarbaldehyde
19	6,7-Dimethoxynaphthalene-2-carbaldehyde

5

Table 2. Analogs of vanillin

4-Hydroxybenzaldehyde	4-Isocyano-2-methoxyaniline	1-(4-Chloro-2-fluoro-5-methoxyphenyl)propan-1-one	2-Propan-2-yloxy-4-prop-1-en-2-ylphenol
2-Methoxy-4-vinylphenol	1-[4-(Ethylamino)-3-methylphenyl]ethanone	4-Methoxypyridin-3-ol	Methyl 3-ethoxy-4-hydrazinylbenzoate
Guaiacol	1-[4-(Ethinylamino)-3-methylphenyl]ethanone	3-Methoxy-2-methylbenzonitrile	Methyl 3-methoxy-4-phosphanyloxybenzoate
Acetovanillone	1-(3-Ethynoxyphenyl)ethanone	3-Methoxy-5-methylbenzaldehyde	1-(3-Methoxy-4-phosphanyloxyphenyl)ethanone
Chloroxine	3-Bromo-1-fluoro-1,3-diazinane-2,4-dione	3,5-Dimethoxy-4-methylbenzaldehyde	Methyl 4-(1-hydroxyethyl)-3-methoxybenzoate
Kojic acid	2-(3-Methyl-2-oxoimidazolidin-1-yl)acetonitrile	(4-Hydroxy-3-methoxyphenyl)(p-tolyl)methanone	1-(4-Hydroxybenzo[d]thiazol-7-yl)ethanone
5-Methoxyfuraldehyde	1-(3-Methoxy-4-methylphenyl)-N-methylmethanimine	(5R)-5-Acetyl-2-methylcyclohex-2-en-1-one	1-Aminopiperidine-2,4-dione

O-Anisidine	5-Chloro-2-methoxy-4-methylphenol	3,4-Dimethoxy-5-methylbenzaldehyde	1-(3-Methoxy-4,5-dimethylphenyl)ethanone
4-Chloro-2-methoxyaniline	4-Acetyl-1-ethyl-3-methylpiperazin-2-one	4-Hydroxy-3-pentoxymethylbenzaldehyde	6-Isocyano-2-methoxypyridin-3-ol
2-Methoxy-4-methylphenol	4-(2-Oxopropyl)piperidine-1-carbaldehyde	2-Iodo-3-methoxybenzonitrile	4-(2-Fluoroethoxy)-3-hydroxybenzaldehyde
2,4-Dihydroxybenzaldehyde	2,3-Difluoro-4-(hydroxymethyl)-6-methylphenol	4-Hydroxy-3-(2-methylpropoxy)benzaldehyde	6-Chloro-2-fluoro-3-(fluoromethoxy)benzaldehyde
Propenylguaiaicol	3,5-Dichloro-6-methoxy-4-methylbenzene-1,2-diol	4-Hydroxy-3-methoxybenzoic acid allyl ester	2-Chloro-6-fluoro-3-(fluoromethoxy)benzaldehyde
4'-Hydroxyacetophenone	3,5-Difluoro-6-methoxy-4-methylbenzene-1,2-diol	2-(3,4-Dimethoxyphenyl)-3-methyloxirane	4-Hydroxy-3-methoxy-5-methylbenzoic acid
Veratraldehyde	Methyl 3-fluoro-3-methyl-2-oxobicyclo[3.1.0]hexane-6-carboxylate	3,4-Difluoro-2-methoxyaniline	3-Ethoxy-5-methylbenzaldehyde
Ethyl vanillin	6-Methoxy-5-methyloxan-2-one	(4-Hydroxy-3-methoxyphenyl) formate	(NE)-N-[(3-ethoxy-5-methylphenyl)methylidene]hydroxylamine
Vanillic acid	3,5,6-Trimethyl-4-oxopyran-2-carbaldehyde	1-(2,4,5-Trifluoro-3-methoxyphenyl)ethanone	1-(3-Methoxy-4-propan-2-ylphenyl)ethanone
4-Hydroxy-3,5-dimethoxybenzaldehyde	1-[3-Methoxy-4-(trifluoromethyl)phenyl]-N-methylmethanimine	1-Methyl-2-oxo-1,2-dihydropyridine-4-carbonitrile	(3-Methoxy-5-sulfanylphenyl)methanol
2-Methoxybenzaldehyde	4-(Isocyanatomethyl)-2-methoxyphenol	3,4-Dihydroxy-5-methylbenzaldehyde	3-Ethoxy-2-fluorobenzaldehyde
3,4-Dihydroxybenzaldehyde	1,4-Dimethyl-2,5-dioxopyrrole-3-carbonitrile	4-Hydroxybenzo[b]thiophene-7-carboxaldehyde	4-Acetyl-1-propan-2-ylpiperazin-2-one
2-Hydroxy-3-methoxybenzaldehyde	2-Methoxy-N,4,5-trimethylaniline	3-Hydroxy-4-methoxy-5-acetonilidenefuran-2(5H)-one	5-Chloro-6-methoxypicolinaldehyde
2-Propenal, 3-(4-hydroxy-3-methoxyphenyl)-	1,3-Cyclopentadiene-1,3-dicarbonyl	2,4-Dihydroxy-5-methoxybenzaldehyde	Deuterio-(4-hydroxy-3-methylphenyl)methanone
4-Hydroxy-3,5-dimethoxybenzyl alcohol	3-Isocyanato-4-methylbenzaldehyde	2-Hydroxy-5-methoxybenzoyl chloride	5-Oxo-1,2-oxazolidine-2-carboxamide
Syringic acid	(4-Amino-3-methoxy-2-methylphenyl)acetonitrile	N-(3-Chlorophenyl)methanimine	2-Cyclopentyl-1-(4-hydroxy-3-methoxyphenyl)ethanone
Tropolone	2,4-Dimethoxybenzenesulfinate	2,5-Difluoro-3-methoxybenzaldehyde	2-Methoxy-6-methyl-4-propan-2-ylphenol
Vanylglycol	5-(Methoxymethyl)-1,3-oxathiolane-2-thione	1-(3,6-Dihydroxy-2-methoxyphenyl)ethanone	1-(3-Hydroxy-4-methoxyphenyl)-2,2-dimethylpropan-1-one
4-Aminobenzaldehyde	4-Acetyl-1-methylpiperazin-2-one	3,5-Dichloro-2-methoxyaniline	5-Fluoro-4-hydroxy-2-methylbenzaldehyde
3-Methoxybenzaldehyde	1-Acetylpyrrolidine-3-carbaldehyde	Allyl-4,5-dimethoxybenzaldehyde	2-Chloro-4-fluoro-3-methoxybenzaldehyde
Ethyl vanillate	4-(Methylamino)cyclohexane-1-carbaldehyde	2-Bromo-1-(4-hydroxy-3-methylphenyl)ethanone	(3E)-3-(Hydroxymethylidene)-2-methylcyclohexene-1-carbaldehyde
Isovanillin	2-Ethoxy-4-propylphenol	3-Hydroxy-4-[(4-methoxyphenyl)methoxy]benzaldehyde	3-Ethoxy-4-hydroxy-5-methoxybenzoic acid
3-Hydroxy-4-methoxybenzoic acid	3-Oxopyrrolidine-1-carbaldehyde	2-Fluoro-4-(hydroxymethyl)phenol	3-Ethoxy-4-hydroxy-5-methoxybenzaldehyde
4-Hydroxybenzonitrile	5-Bromo-4-fluoro-2-methoxyphenol	Methyl 4-iodo-3-methoxybenzoate	3-Methoxy-4-(methylamino)benzamide
Vanillylidene acetone	1-(5-Acetyl-1-amino-4-methylpyrrol-3-yl)ethanone	p-Anisaldehyde-%7CA-d1	(2S,3R)-3-Methylpyrrolidine-1,2-dicarbonyl

3',4'-Dimethoxyacetophenone	4-Hydroxy-3-methyl-5-phosphanyloxybenzaldehyde	1-[3-[(Dimethylamino)methyl]-4-hydroxyphenyl]ethanone	(2S,5R)-5-Methylpyrrolidine-1,2-dicarbaldehyde
3',4'-Dihydroxyacetophenone	4-Methylcyclopentane-1,2-dicarbaldehyde	3-Hydroxy-4-methoxy-2-(1-methylprop-2-enyl)benzaldehyde	1-Azido-5-chloro-2,4-dimethoxybenzene
1-(4-Hydroxy-3-methoxyphenyl)propan-1-one	(4-Formyl-2-methoxyphenyl)sulfate	4-Bromo-2-methoxy-6-methylphenol	1-[5-Methoxy-2-(methylamino)phenyl]ethanone
3,5-Dichloro-4-hydroxybenzaldehyde	4-Formyl-2-methoxyphenyl hydrogen sulfate	4-Hydroxy-5-methoxy-1-indanone	5-Iodo-2-methoxy-4-methylphenol
Homovanillyl alcohol	3-Isocyano-5-methoxybenzonitrile	1-Acetyl-3-chloro-2-hydroxy-5-methoxybenzene	4-Chloro-6-methoxycyclohexanecarbaldehyde
3-Chloro-4-hydroxybenzaldehyde	6-Methoxy-3-methyl-1-benzothiophen-5-ol	3-(Allyloxy)-4-hydroxybenzoic acid methyl ester	(1R,2R,4S)-2-Azido-4-(methoxymethyl)cyclohexan-1-ol
4,5-Dichloroguaiacol	2-Methoxy-3-methyl-4-(prop-1-en-1-yl)phenol	5-Bromo-2,4-dimethoxy-3-methylphenol	2-Hydroxy-5-(methylideneamino)benzaldehyde
Acetosyringone	3,5-Dimethyl-3H-pyran-2,6-dione	4-Hydroxy-3-[(4-methoxyphenyl)methoxy]benzaldehyde	2-Methyl-5-(methylideneamino)benzaldehyde
4-(1-Hydroxyethyl)-2-methoxyphenol	3-(4-Hydroxy-3-methoxyphenyl)-2-methylprop-2-enal	3-Hydroxy-2-iodo-4-methoxybenzaldehyde	2-Methoxy-4-(1-methoxyethyl)phenol
4-Hydroxy-3-methoxyphenylacetone	3-[5-(5-Formyl-2-hydroxyphenoxy)pentoxy]-4-hydroxybenzaldehyde	2H-Pyran-4-carboxaldehyde, 3-methyl-2-oxo-	2-Methoxy-4-oxatricyclo[4.2.1.0 ^{3,7}]nonan-5-one
Tetrachloroguaiacol	1-(Chloromethyl)-6-hydroxy-4,5-dimethyl-2-oxopyridine-3-carbonitrile	2,4-Dihydroxy-3-methoxybenzaldehyde	4-Methoxycyclopenta-1,3-diene-1-carbaldehyde
4,5,6-Trichloroguaiacol	2-Chloro-4-(methylamino)benzonitrile	Phenol, 2-methoxy-4-(methoxymethyl)-3-methyl-	1-(8-Methylquinolin-7-yl)ethanone
2,4-Dimethoxyaniline	5-(Methoxymethyl)-1,3,4-oxadiazole-2-carbaldehyde	5-Tert-Butyl-4-hydroxy-2-methylbenzaldehyde	3-Chloro-2-fluoro-6-hydroxybenzaldehyde
2-Methoxy-4-propylphenol	2,3,4-Trifluoro-5-methoxybenzoic acid ethyl ester	2-Hydroxy-5-prop-1-en-2-ylcyclohex-2-en-1-one	4-Isocyano-2-methoxyphenol
Isophthalaldehyde, 5-ethoxy-4-hydroxy-	1,3-Dimethyl-5-sulfanylidene-pyrrolidin-2-one	4-Hydroxy-m-anisaldehyde, bromo derivative	4-Chloro-2-methoxy-3,6-dimethylphenol
4-Hydroxy-5-methoxyisophthalaldehyde	2-Methoxy-4-(3-methylbutyl)phenol	3-Cyclopentyloxy-4-hydroxybenzaldehyde	1-(Chloromethoxy)-3-methoxybenzene
5-Bromovanillin	2,4-Dimethoxybenzene-1,3-diol	Methyl 4-hydroxy-3-iodobenzoate	3-Acetyl-4-methylbenzaldehyde
2,6-Dichloro-4-hydroxybenzonitrile	N-(2-Formyl-4-methoxyphenyl)formamide	4-(Methoxymethyl)benzene-1,2-diol	3-(Methylideneamino)benzaldehyde
Acetophenone, 3,4-dihydroxy-5-methoxy-	4-Cyano-2-ethoxybenzoyl chloride	Phenol, 6-bromo-2,4-dimethoxy-3-methyl-	(1R,2R,4R)-2-Methoxy-4-methylcyclohexan-1-ol
Methyl vanillate	2,4-Dihydroxy-5-methylbenzaldehyde	4-[2-(4-Fluorophenyl)ethoxy]-3-hydroxybenzaldehyde	5-Hydroxy-2-[2-(4-hydroxy-3-methoxyphenyl)ethynyl]-4-methoxybenzaldehyde;praseodymium
3,5-Dimethyl-4-hydroxybenzonitrile	Ethyl acetate;4-hydroxy-3-methoxybenzaldehyde	3-Acetyl-4-hydroxybenzaldehyde	5-Hydroxy-2-iodo-4-methoxybenzaldehyde;praseodymium
2,3-Dimethoxybenzonitrile	2-Methoxy-1-methyl-4-thionitrosobenzene	3-Cyclopropoxy-4-hydroxybenzaldehyde	4-Hydroxy-2-iodo-5-methoxybenzaldehyde;praseodymium
3,4-Dimethylbenzaldehyde	Ethyl 2-methylpropanoate;4-hydroxy-3-methoxybenzaldehyde	4-(Chloromethoxymethyl)-1,2-dimethoxybenzene	3-Hydroxy-4-methoxybenzaldehyde;praseodymium

2-Amino-2,4,6-cycloheptatrien-1-one	2-Chloro-6-methoxy-4-methylaniline	Methyl 3-bromo-4-hydroxy-5-methoxybenzoate	1-(4-Hydroxy-3-methoxy-5-methylphenyl)propan-2-one
3,4-Dichlorobenzaldehyde	1-Azido-2,4-dimethoxybenzene	2-Methoxy-4-(methylthio)phenol	4-Chloro-2-fluoro-3-methoxybenzonitrile
trans-2-Cyanocyclobutanecarboxamide	3-(Difluoromethoxy)-4-hydroxybenzaldehyde	2,5-Difluoro-3-methoxybenzyl alcohol	4-(Hydroperoxymethyl)-2-methoxyphenol
4-Chloro-2-methoxyphenol	1-(3-Hydroxy-4-phenylmethoxyphenyl)propan-1-one	1H-Pyrrole-2-carbonitrile, 5-chloro-1-(methoxymethoxy)-	3-Ethoxy-4-(1-ethyl-propoxy)-benzaldehyde
Phenol, 2,4-dichloro-6-methoxy-	4-Methoxy-3-pentan-3-yloxybenzaldehyde	Benzyl vanillin	4-Cyanophenol-2,3,5,6-d4
2,3-Dihydropyridine	3-(2-Ethylbutoxy)-4-methoxybenzaldehyde	3-Oxo-1-cyclohexene-1-carbonitrile	2-Oxazolecarboxaldehyde, 5-ethoxy-
Ethyl 3,5-dichloro-4-hydroxybenzoate	4-(Chloromethyl)-2-methoxyphenol	1-Ethoxy-3-(methoxymethyl)benzene	1-(4-Ethynoxy-6-methylpyridin-2-yl)ethanone
Benzaldehyde, 2,3-dichloro-4-hydroxy-5-methoxy-	6-Formylbicyclo[2.2.1]heptane-2-carbonitrile	4-Methoxy-2-naphthaldehyde	4-Hydroxy-3-methoxy-5-methylbenzaldehyde;yttrium
2-Chloro-4-hydroxy-5-methoxybenzaldehyde	4-Sec-butoxy-3-methoxybenzaldehyde	Ethyl(3-methoxybenzyl) ether	3-Butoxy-4-propoxybenzaldehyde
3-Chloro-4-hydroxy-5-methoxybenzaldehyde	2,3-Difluoro-6-hydroxybenzaldehyde	2-Benzyl-5-hydroxy-4-methoxybenzaldehyde	4-(Cyclopropylmethoxy)-3-hydroxybenzaldehyde
4-Methoxybenzaldehyde	3-(2-Bromo-1,1,2,2-tetrafluoroethoxy)-4-hydroxybenzaldehyde	(S)-(-)-2-(Methoxymethyl)-1-pyrrolidinecarboxaldehyde	1-(3-Fluoro-4-hydroxy-5-methoxyphenyl)ethanone
1-(4-Hydroxy-3,5-dimethylphenyl)ethanone	4-Hydroxy-3-(1,1,2,2-tetrafluoroethoxy)benzaldehyde	3-Methoxy-4-[(3-methyl-2-buten-1-yl)oxy]benzaldehyde	2-Ethoxy-4-propan-2-ylphenol
Dichloro-2,6-dimethoxyphenol	4-Hydroxy-3-methoxyphenethyl chloride	2-Methylveratraldehyde	5-Formyl-2-hydroxy-3-methylbenzoic acid methyl ester
4-Hydroxy-3-(hydroxymethyl)benzaldehyde	6-Formyl-3-hydroxy-2-methoxybenzoic acid	4-Acetyl-N-methylaniline	3-Methoxy-4-(pent-3-yloxy)benzaldehyde
2-Cyano-1-aziridinecarboxamide	2-Chloro-4-fluoro-5-isocyanatobenzaldehyde	1-(3-Hydroxy-4-methoxy-5-methylphenyl)ethanone	4-(But-2-ynyloxy)-3-methoxybenzaldehyde
3,4,5-Trichloroguaiacol	2,4-Dichloro-5-isocyanatobenzaldehyde	2,4-Dihydroxyisophthalaldehyde	3-(But-2-ynyloxy)-4-methoxybenzaldehyde
4-Hydroxy-3-methoxyphenyl acetate	3,5-Dichloro-4-(hydroxymethyl)-2,6-dimethylphenol	2,3-Dimethoxy-5-methylbenzaldehyde	Ethyl 3-hydroxy-4-(trideuteriomethoxy)benzoate
2-Bromo-4-hydroxy-5-methoxybenzaldehyde	2',6'-Dimethoxy-4'-formyl-formanilide	2,5-Dihydroxy-4-methoxybenzaldehyde	3-Hydroxy-4-phosphanyloxybenzaldehyde
3,4,6-Trichloroguaiacol	6-Hydroxy-5-methoxybenzo[b]thiophene	3-Methoxy-4-hydroxy-5-benzylbenzaldehyde	7-Hydroxy-benzo[b]thiophene-4-carbaldehyde
3-Chloro-4-hydroxy-5-methoxybenzoic acid	3-Chloro-4-(hydroxymethyl)phenol	2-Benzyl-3-hydroxy-4-methoxybenzaldehyde	4-Hydroxy-3-methoxybenzaldehyde;rutherfordium
2-Chloro-4-hydroxy-5-methoxybenzoic acid	1,3-Dimethyl-4-sulfanylideneimidazolidin-2-one	(3-Methoxy-4-methylphenyl)methanol	3-(Methylideneamino)benzonitrile
3-Methoxytropolone	1,3-Dimethylimidazolidine-2,4-dithione	2-Cyclohexen-1-one, 6-hydroxy-3-methyl-	(2E,4E)-5-(4-Hydroxy-3-methoxyphenyl)penta-2,4-dienal
2-Hydroxy-5-(hydroxymethyl)benzaldehyde	3-Butyl-4-hydroxybenzaldehyde	2-Amino-4-hydroxy-5-methoxybenzaldehyde	1-Ethenoxynaphthalen-2-ol
2-Chlorosyringaldehyde	3-(Hexyloxy)-4-hydroxybenzaldehyde	Methyl 3-cyano-4-hydroxybenzoate	2-(4-Isocyano-5-methoxy-2-methylphenyl)oxirane

3,4-Dichloro-2-methoxyphenol	2,5-Dichloro-4-hydroxybenzonitrile	2-Methoxy-4-(1,3-oxathiolane-2-yl)phenol	2-(4-Isocyano-3-methoxyphenyl)oxirane
2-Chloro-4-hydroxy-3-methoxybenzaldehyde	5-Acetyl-2-hydroxyphenylacetone nitrile	3-Formyl-4-hydroxybenzonitrile	2-(4-Isocyano-3-methoxy-2-methylphenyl)oxirane
4-Formyl-2-methoxyphenyl acetate	3-Methylcyclobutane-1,2-dicarbonitrile	3-Hydroxy-2-methoxybenzaldehyde	2-(2-Fluoro-4-isocyano-5-methoxyphenyl)oxirane
4-(Ethoxymethyl)-2-methoxyphenol	(5-Chloro-2,4-dimethoxyphenyl)carbamic acid	4-Amino-3-methoxybenzonitrile	3-Hydroxy-4-methoxy-2-(4-methylphenyl)benzaldehyde
Vanillyl alcohol	2-Methoxy-N,3,4,5,6-pentamethylaniline	2-Methoxy-4,6-dimethylaniline	1-(1-Hydroxy-6-sulfanylidene-pyridin-2-yl)ethanone
4-Ethyl-2-methoxyphenol	4-Methoxy-2-methylcyclohexa-1,4-dien-1-ol	4-(1-Chlorovinyl)-1,3-dimethoxybenzene	N-(2,4-Dimethoxyphenyl)thiohydroxylamine
5-Acetyldihydrofuran-2(3H)-one	2-Ethoxy-4-methoxyphenol	2-Iodo-3,4-dimethoxybenzaldehyde	4-Methoxy-3-(1,1,2,2,2-pentadeuterioethoxy)benzaldehyde
N-(2-Methoxy-4-nitrophenyl)acetamide	6-Methoxybenzo[d]isoxazole	3,4-Dihexyloxybenzaldehyde	3-Ethoxy-4-(trideuteriomethoxy)benzaldehyde
2-Ethoxyphenol	3-Methyl-5-(trifluoromethoxy)benzonitrile	(2-Methoxy-4-nitrophenyl)hydrazine	3-(1,1,2,2,2-Pentadeuterioethoxy)-4-(trideuteriomethoxy)benzaldehyde
2,4-Diethoxyaniline	(5-Formyl-2-hydroxyphenyl)cyanate	4-Oxo-6-methyl-4H-pyran-2-carbaldehyde	1-Ethoxy-2-methoxy-4-(methoxymethyl)benzene
5-Chloro-2,4-dimethoxyaniline	3-Hydroxy-4-(2-hydroxyethoxy)benzaldehyde	3-Bromo-3-(methoxymethyl)cyclobutane-1-carbonitrile	1-Fluoro-2-methoxy-4-(methoxymethyl)benzene
2-Chloro-3',4'-dihydroxyacetophenone	2,6-Dichloro-4-(2-methoxypropan-2-yl)phenol	2-Allyloxy-4-nitrophenol	3-Amino-6-methyloxan-2-one
4-Ethoxy-3-methoxybenzaldehyde	4-Ethylsulfinylphenol	1,3-Benzenedicarboxaldehyde, 4-hydroxy-2-methyl-	Methyl 3,4-bis(trideuteriomethoxy)benzoate
3-Fluoro-4-methoxybenzaldehyde	3-Aminotetrahydro-1,3-oxazin-2-one	2-Ethoxy-4-vinylphenol	6-(Hydroxymethyl)-4-methoxyoxan-3-ol
3-Hydroxy-4H-pyran-4-one	2-Methyl-4-methylsulfinylphenol	(2R)-2-Hydroxy-4-methylcyclohexan-1-one	Benzaldehyde, 4-hydroxy-3-methoxy-5-propyl-
3-Hydroxy-2H-pyran-2-one	(4-Formyl-2-methoxyphenyl)hydrogen sulfite	4-Bromo-3-methoxybenzaldehyde	3-Hydroxy-4-octoxybenzaldehyde
5-Hydroxy-2-methyl-4H-pyran-4-one	5-Acetyl-7-chloro-8-hydroxyquinoline	Benzaldehyde, 3,4-bis[2-(2-hydroxyethoxy)ethoxy]-	Benzaldehyde, 4-hydroxy-3-methyl-5-(2-propen-1-yl)-
1-Methyl-6-oxo-1,6-dihydropyridine-3-carboxamide	1-(7-Bromo-8-hydroxy-quinolin-5-yl)-ethanone	4-Methoxy-3-(trideuteriomethoxy)benzaldehyde	3-Methoxy-2,4-dimethylbenzonitrile
2'-Hydroxy-5'-methoxyacetophenone	(3,4-Dimethoxyphenyl)-(4-hydroxy-3-methoxyphenyl)methanone	4-Methoxy-2-oxo-2H-pyran-6-carbaldehyde	4-Methyl-1-oxo-1,4-thiazinan-3-one
2-Methoxyhydroquinone	(4-Fluorophenyl)-(4-hydroxy-3-methoxyphenyl)methanone	2H-Pyran-6-carboxaldehyde, 4-methoxy-3,5-dimethyl-2-oxo-	3-Hydroxy-2-iodo-4-methoxy-5-methylbenzaldehyde
1,3-Dimethyluracil	2'-Methyl-3-methoxy-4-hydroxybenzophenone	4-Amino-3-mercapto-benzoic acid ethyl ester	5-Fluoro-3-hydroxy-6-isocyano-1-methylpyridin-2-one
1-(4-Hydroxy-2-methylphenyl)ethanone	4-Hydroxy-3-methoxybenzaldehyde; phenylmethoxymethylbenzene	2-Methoxyphenol-d3	2,5-Dihydroxycyclohex-2-en-1-one
4'-Hydroxy-3'-methylacetophenone	(3-Fluorophenyl)-(4-hydroxy-3-methoxyphenyl)methanone	4-Thiazolidinone, 3,5-dimethyl-2-thioxo-	4-Hydroxy-3-(methoxymethyl)-5-methylbenzonitrile
Methyl 4-hydroxy-3,5-dimethoxybenzoate	(4-Hydroxy-3-methoxyphenyl)-(4-methoxyphenyl)methanone	1-(4-Hydroxy-3-dimethylamino-phenyl)ethanone	3-(Difluoromethoxy)-4-fluorobenzonitrile

Vanillylamine	Ethyl 3-chloro-4-(methylamino)benzoate	4-Hydroxy-3-methoxybenzaldehyde	5-(Deuteriomethoxymethyl)-2-methoxy-N-methylaniline
Methyl 3-chloro-4-hydroxy-5-methoxybenzoate	3-Methoxy-4-hydroxybenzoic acid pentyl ester	4-Hydroxy-3-(methoxy-13C)benzaldehyde	4-Fluoro-5-iodo-2-methoxyphenol
6-Hydroxynicotinamide	4,5-Dichloro-3-methoxybenzaldehyde	Ethanone, 1-[4-hydroxy-3-(methylsulfonyl)phenyl]-	1-(3-Hydroxy-4-prop-2-enoxyphenyl)ethanone
3-Methoxybenzonitrile	1-(2,4-Dimethoxy-phenyl)-ethyl chloride	2-(Methoxymethyl)benzaldehyde	5-Amino-2,3-dimethyl-1,3-thiazinan-4-one
4-Methoxy-2,6-dimethylphenol	3,5-Dimethoxy-4-hydroxybenzoic acid chloride	3-(Methoxymethyl)benzaldehyde	6-Amino-3,4-dimethyl-1,4-thiazepan-5-one
3,5-Dichloro-4-hydroxybenzonitrile	5-Chloro-3-ethoxy-2-methylbenzene-1,4-diol	2-Ethoxy-d5-phenol	6-Amino-2,4-dimethyl-1,4-thiazepan-5-one
3,4-Diethoxybenzaldehyde	3-Amino-2-methoxy-6-methylbenzenethiol	1-(3-Hydroxy-4-methoxyphenyl)-2-phenylethanone	(3-Methoxy-4-methylphenyl)methanimine
4,6-Diacetylresorcinol	7-Sulfanylideneoxepan-2-one	1-[4-Hydroxy-3-(trideuteriomethoxy)phenyl]ethanone	1-[(4R)-2-Acetyl-4-methylcyclohexyl]ethanone
beta-Hydroxypropiovanillone	1-(3-Methoxy-4-methylphenyl)ethanethione	7-Hydroxybenzofuran-4-carbaldehyde	2-(Tritritiomethoxy)benzaldehyde
3,5-Dimethyl-4-hydroxybenzaldehyde	4-Hydroxy-3-methoxybenzaldehyde;urea	5-Formylthiophene-2-carboxamide	2-(111C)Methoxybenzaldehyde
4-Ethoxy-3-hydroxybenzaldehyde	3-Hydroxy-4-methylthiobenzaldehyde	1-Methyl-6-oxo-1,6-dihydropyridine-2-carboxamide	(4-Cyano-3-fluorophenyl)oxidanium
2-Ethoxy-4-methylphenol	4'-Hydroxy-3',5'-dimethoxy-alpha-iodoacetophenone	4-Cyano-1-aminopyridinium	1-Amino-3,5,6-trimethylpyrimidine-2,4-dione
2-Methoxy-6-methylphenol	6-Hydroxy-3-methoxy-2-methylcyclohex-2-en-1-one	3-Methoxy-4-hydroxyphenylacetylene	(2E)-2-(Hydroxymethylidene)-4,4-dimethyl-5-sulfanylideneethiolan-3-one
3-Bromo-4-hydroxybenzaldehyde	5-Ethoxynicotinonitrile	Curvulol	(5S)-3-Methoxy-5-methylcyclohexan-1-one
4-Hydroxy-3,5-dimethoxybenzamide	3,4-Difluoro-2-methoxyphenol	1-(3-Chloro-4-ethoxyphenyl)ethanone	1-(3,4-Dimethoxyphenyl)-3-(3-hydroxy-4-methoxyphenyl)propan-1-one
2-Methoxy-4-nitrophenol	4-Hydroxy-3-methoxybenzaldehyde;3-methylbutyl acetate	4-Methoxypicolinaldehyde	(3Z,5R)-3-(Hydroxymethylidene)-1,5-dimethylpyrrolidin-2-one
Methyl 3,5-dichloro-4-hydroxybenzoate	1-Vinyl-3-methylpyrimidine-2,4(1H,3H)-dione	6-Methoxypyridine-2-carbaldehyde	4-Tritiooxybenzaldehyde
3,4-Dihydroxy-5-methoxybenzaldehyde	Acetyloxy-(5-formyl-2-hydroxy-3-methoxyphenyl)mercury	4-Hydroxyisophthalonitrile	4-Methoxy-5-(methoxymethyl)-2-methylthiolan-3-ol
Methyl 3-chloro-4-hydroxybenzoate	2-Methoxy-6-nitrosophenol	6-Ethoxy-4,5-dimethyl-2,3-dihydro-1H-inden-1-one	4-[(4-Hydroxyphenyl)methoxy]-3-methoxybenzaldehyde
3-Hydroxy-4-methoxybenzyl alcohol	2-Ethyl-4-hydroxy-3-methoxybenzamide	4-Ethoxy-5,7-dimethyl-2,3-dihydro-1H-inden-1-one	2,5-Dimethoxy-N-methylbenzamide
4-Hydroxy-3-methoxybenzonitrile	3-Methoxy-2-methylperoxybenzaldehyde	1-Methyl-6-oxo-1,6-dihydropyridine-2-carbonitrile	4-(4-Hydroxybutoxy)-3-methoxybenzaldehyde
4-Hydroxy-3-methoxyphenylacetone	Ethyl 5-acetyl-4-hydroxy-3,6-dihydro-2H-pyridine-1-carboxylate	2-Acetyl-4-cyanophenol	4-(2-Butoxyethoxy)-3-methoxybenzaldehyde
3-Chloro-4-methoxybenzaldehyde	3-Hydroxy-4-methyl-5-methylidenefuran-2-one	Methyl 3-acetyl-4-hydroxybenzoate	Methyl 3-azido-4-hydroxybenzoate
2,5-Diacetylthiophene	2-(Methoxymethyl)-4,6-dimethylphenol	5-Methoxy-2-methylbenzaldehyde	2-(3-Ethoxyphenyl)oxirane
Butyl vanillate	3-Methoxy-4-[(E)-prop-1-enoyl]benzaldehyde	(R)-(+)-2-(Methoxymethyl)-1-pyrrolidinecarboxaldehyde	3-(3-Methyl-2-oxoimidazolidin-1-yl)propanal

4-(Methoxymethyl)phenol	N-Ethyl-4-hydroxy-3-methoxybenzamide	Ethanone, 1-(4-hydroxy-3-propylphenyl)-	Benzonitrile, 2-fluoro-5-isocyanato-
5-Iodovanillin	4,6-Didazo-1-methylcyclohexene	2-Hydroxy-5-methylcyclohepta-2,4,6-trien-1-one	4-Amino-3-ethoxybenzamide
2-Methoxy-4-(methoxymethyl)phenol	4-Hydroxy-5-methoxycyclohept-2-en-1-one	3-Amino-6-methoxypyridine-2(1H)-thione	1-Acetyl piperidine-3-carbonitrile
1-Propanone, 1-(4-hydroxy-3,5-dimethoxyphenyl)-	2H-Pyran-2-one-6-carboxaldehyde	2-Methoxy-3-methylaniline	2-Ethoxy-4-(2-hydroxyethyl)phenol
Benzonitrile, 4-amino-2,5-dimethoxy-	2-Methoxy-5-methyl-4-nitrophenol	4-Amino-2,3-dimethylbenzaldehyde	3-(Methoxymethyl)pyrrolidine-1-carbaldehyde
2,4-Dihydroxy-3-methylbenzaldehyde	5-Fluoro-2,4-dimethoxy-pyridine	Methyl 4-hydroxy-3,5-dimethylbenzoate	3-(Hydroxymethyl)azetidine-1-carboxamide
4-Chloro-2-methoxy-5-methylaniline	1-(4-Cyanophenyl)-2-methylhydrazine	2-Isopropenyl-4-methoxyphenol	Methyl 4-ethenoxy-3-methoxybenzoate
3-Methoxybenzyl alcohol	4-(2-Methoxyethyl)piperazine-1-carbaldehyde	4-Hydroxy-3-methoxymethoxybenzaldehyde	4-Chloro-3-ethoxy-2-fluorobenzaldehyde
2,4-Dimethoxybenzyl alcohol	2-(2-Methoxy-3,5-dimethylphenyl)acetaldehyde	3-Hydroxy-4-(methoxymethoxy)benzaldehyde	2-Chloro-3-methoxyhydroquinone
2,4-Dimethoxybenzenediazonium	2-Chloro-1-(2,4-dihydroxy-3-methoxyphenyl)ethanone	2-Chloro-1-(2-hydroxy-5-methoxyphenyl)ethanone	Acetic acid;1-(4-hydroxy-3-methoxyphenyl)ethanone
2-(Chloromethyl)-5-hydroxy-4H-pyran-4-one	Benzo[d]thiazole-5-carbaldehyde	4-Amino-3,5-dimethoxybenzoic acid methyl ester	4-Carbamoyloxazol-2-ylmethanol
4,5-Dimethoxy-2-methylbenzaldehyde	6-Amino-4,5-dimethylnicotinonitrile	2-Methyl-3-oxocyclohexane-1-carbonitrile	(4R)-6-(Hydroxymethyl)-4-methoxyoxan-3-ol
4-Hydroxy-5-isopropyl-3-methylbenzaldehyde	5-Quinoxalinecarbonitrile, 8-amino-	4-Hydroxy-6-methoxybenzene-1,3-dicarbaldehyde	1-(4-Hydroxy-3-methoxyphenyl)ethanone
Methyl homovanillate	4-Hydroxy-5-methoxy-2-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)benzaldehyde	1,4-Dimethyl-6-oxopyrimidine-2-carbonitrile	Formaldehyde;3-(4-hydroxy-3-methoxyphenyl)-1-(4-hydroxyphenyl)prop-2-en-1-one
2-Ethoxy-4-nitroaniline	3-Methylisoeugenol	1-(5-Hydroxypyridin-2-yl)ethanone	3-(4-Hydroxy-3-methoxyphenyl)-1-(4-hydroxyphenyl)prop-2-en-1-one
Methyl 5-acetylsalicylate	1-[3-Chloro-5-(difluoromethoxy)phenyl]ethanone	3-Chloro-4-methylbenzaldehyde	5'-Hydroxy-2'-iodo-4'-methoxyacetophenone
Benzaldehyde, 2,6-dichloro-4-hydroxy-3-methoxy-	3-Chloro-5-(1-fluoroethoxy)benzaldehyde	2-Chloro-5-methoxybenzene-1,4-diol	1-(5-Hydroxy-2-iodo-4-methoxyphenyl)propan-1-one
3',5'-Dichloro-4'-hydroxyacetophenone	3-Chloro-5-(difluoromethoxy)benzaldehyde	3-Oxocyclopentanecarbaldehyde	3-Hydroxy-1-(4-hydroxy-3-methoxyphenyl)butan-1-one
2-Methoxy-3-methylphenol	3-Chloro-5-methoxybenzaldehyde	3-Hydroxy-5-methyl-2,5-dihydrofuran-2-one	4-Hydroxy-1-(4-hydroxy-3-methoxyphenyl)butan-1-one
2-Hydroxy-1-(4-hydroxy-3-methoxyphenyl)ethanone	3,4-Diethoxy-2-fluorobenzaldehyde	3-Methoxy-4-[2-(vinyl)ethoxy]benzaldehyde	1-(Methoxymethyl)-3-methylenecyclobutanecarbonitrile
3-Methoxyphenyl isocyanate	2,4,5-Trifluoro-3-methoxybenzaldehyde	2,4,5-Trimethoxyphenol	1-(Cyanomethyl)-3-methylenecyclobutanecarbonitrile
2,4,6-Trimethoxyphenol	4-Hydroxy-3-methoxy-2-(2-oxopropyl)benzaldehyde	4-Hydroxytetrachlorobenzonitrile	5-(Methoxymethyl)-4-methyl-1,3-oxazol-2-thiol
2-Cyclopenten-1-one, 2-hydroxy-3,4-dimethyl-	4-Hydroxy-3-methoxybenzaldehyde;2-propan-2-yloxypropane	4-Hydroxy-5-methoxy[1,1'-biphenyl]-2-carbaldehyde	1-(4-Hydroxy-3-methoxyphenyl)but-3-en-2-one
3-Ethoxybenzaldehyde	3-Hydroxy-4-methoxybenzaldehyde;2-propan-2-yloxypropane	5-Hydroxy-4-methoxy-2-(2-methylphenyl)benzaldehyde	2,4-Difluoro-6-methoxyphenol

N-(2,4-Dimethoxyphenyl)acetamide	3-Butoxybenzonitrile	Ethyl 4-hydroxy-3-methylbenzoate	3-Chloro-5-hydroxy-1,2-dimethylpyridin-4(1H)-one
3-Ethoxybenzonitrile	3-Cyano-5-ethoxybenzoyl chloride	4-(3-Hydroxy-4-methoxyphenyl)-4-oxobutanoic acid	Methyl 3-chloro-4-hydroxy-5-isopropoxybenzoate
2-Methoxy-4-(oxiranylmethyl)phenol	4-Butyloxy-3-hydroxybenzaldehyde	4-(4-Hydroxy-3-methoxyphenyl)-4-oxobutanoic acid	5-Ethyl-4-fluoro-2-methoxyphenol
Acetamide, N-(2-methoxy-5-methyl-4-nitrophenyl)-	3-Hydroxy-4-propoxybenzaldehyde	Benzaldehyde, 3-(1,1-dimethylethyl)-4-hydroxy-5-methyl-	5-Hydroxy-6-oxo-1H-pyrimidine-2-carboxamide
3-Ethoxy-4-hydroxybenzoic acid	3-Methoxy-5-methylbenzonitrile	4-Mercapto-2-methoxyphenol	1-(3-Cyclopentyl-4-hydroxyphenyl)ethanone
1-(3-Hydroxy-4-methoxyphenyl)ethanone	3-Chloro-5-methoxybenzonitrile	5-Mercapto-2-methoxyphenol	1-(4-Hydroxy-3-methoxyphenyl)ethanone; 2-methoxyphenol
2,4-Dimethyl-1,2,4-thiadiazolidine-3,5-dithione	3,5-Diethoxy-4-hydroxybenzaldehyde	Methyl 5-acetyl-2,4-dihydroxybenzoate	2-Chloro-4-hydroxy-3-methylbenzonitrile
5'-Fluoro-2'-hydroxyacetophenone	4-Hydroxy-2,3-dimethoxybenzaldehyde	4-Methoxy-2-methylphenol	Hex-5-enyl 4-hydroxy-3-methoxybenzoate
4H-Pyran-4-one, 3-hydroxy-6-(hydroxymethyl)-2-methyl-	3-Hydroxy-4-(2-phenylethoxy)benzaldehyde	2-Hydroxy-3-methoxybenzonitrile	3-Fluoro-5-hydroxypyridine-2-carbonitrile
2-(3-Methoxyphenyl)oxirane	2,5-Difluoro-4-hydroxybenzaldehyde	1-Amino-4-ethylpiperazine-2,3-dione	Ethanone, 1-[3-(ethylthio)-4-hydroxyphenyl]-
3-Methoxybenzamide	3-Bromo-2,5-difluoro-4-hydroxybenzaldehyde	n-Ethyl-2,4-dimethoxyaniline	4-Hydrazinyl-3-methoxy-2-methylbenzoic acid
Methyl 3,4-dihydroxy-5-methoxybenzoate	2-Methoxy-4-(methylamino)phenol	6-Chloro-1-ethenyl-3-hydroxypyridine-2-thione	(3S,4S)-3-Amino-4-ethoxypyrrrolidine-1-carboxylic acid
4-Hydroxyimino-2-methoxy-2,5-cyclohexadiene-1-one	4-(Dimethylamino)-2-methoxyphenol	2(1H)-Pyridinone, 3-hydroxy-6-methyl-	2,4-Bis(methoxymethyl)benzene-1,3-diol
3-(Chloromethyl)-4-methoxybenzaldehyde	2,3-Dimethoxy-4-fluorobenzaldehyde	2,3,4-Trimethoxy-6-methylphenol	2-Methoxy-3-hydroxy-6-cyanopyridine
3-Ethoxybenzamide	1-(3-(Vinyl-4-ethoxy)phenyl)ethanone	2-Chloro-3-methoxybenzaldehyde	2-Chloro-4-hydroxy-5-methylbenzonitrile
4-Ethyl-2,3-dioxopiperazine-1-carbonyl chloride	3-Hydroxy-1-methyl-1,3-diazinane-2,4-dione	4-Methoxy-6-methylpyridine-2-carbaldehyde	3-Methanehydrazonoyl-2-methoxyphenol
3-Amino-5-((methylthio)methyl)oxazolidin-2-one	1,3-Dihydroxy-1,3-diazinane-2,4-dione	1-Methoxy-2,3,5-trifluorobenzene	2-Chloro-5-hydroxy-3-methylpyrimidin-4(3H)-one
6-Hydroxy-1,5-dimethyl-2-oxo-1,2-dihydropyridine-3-carbonitrile	3-(2,2-Dimethylpropoxy)-4-methoxybenzaldehyde	3-Methoxy-5-methyl-1,2-benzenediol	5-Fluoro-2-methoxy-4-nitrophenol
2-Hydroxy-5-methoxybenzamide	Aminocyclohexenone	2-Hydroxy-5-methylcyclohexan-1-one	Methyl 3-(difluoromethoxy)-4-methylbenzoate
Hydrazine, (2,5-dimethoxybenzyl)-	4-(Hydroxymethyl)-2,3,6-trimethylphenol	2-Methoxy-3,4,5,6-tetramethylphenol	6-Oxo-2,3-dihydro-1H-pyridine-4-carbonitrile
4-Methoxy-3-methylbenzaldehyde	2,6-Difluoro-4-(hydroxymethyl)phenol	1-(2-Hydroxy-3-methoxy-4-methylphenyl)ethanone	1-[3-Hydroxy-4-(2-phenylethoxy)phenyl]ethanone
2-(4-Hydroxyphenyl)oxirane	4-Amino-3-(methoxymethoxy)benzonitrile	2,5-Dimethoxy-3,4-dimethylbenzaldehyde	3-Chloro-2,4-dimethoxy-N-methylbenzamide
Hexyl vanillate	3,4-Dihydroxybenzene-1,2-dicarbaldehyde	Methyl 4-amino-3-mercaptopbenzoate	5-Hydroxy-4-methyl-6-oxo-1H-pyridine-2-carbonitrile

p-Hydroxymethylphenylhydrazine	6-Oxo-1,6-dihydropyridine-2-carbaldehyde	Ethyl 3-acetyl-4-hydroxybenzoate	6-Hydroxy-5-methoxy-3H-1-benzofuran-2-one
1-Chloro-2,4-dimethoxybenzene	5-Fluoro-5-methoxycyclohexa-1,3-diene-1-carbaldehyde	3-Hydroxy-4-methoxyphenyl formate	4-Amino-3-methoxy-2-methylbenzonitrile
4-Hydroxy-3-methylbenzaldehyde	3-Ethyl-4-hydroxybenzaldehyde	3-Methoxy-5-methylcyclohex-2-en-1-one	4-Ethoxy-3-hydroxybenzamide
2(1H)-Pyridinethione, 1-ethyl-3-hydroxy-6-methyl-	(E)-3-(2-Formyl-4,5-dimethoxyphenyl)prop-2-enoic acid	5-Methoxy-3-thiophenecarboxaldehyde	1-(4-Hydroxy-3-methoxyphenyl)propan-1-one; octan-2-ol
3,4-Dimethoxy-5-hydroxybenzaldehyde	3-Ethoxy-4-(2-hydroxy-2-methylpropoxy)benzaldehyde	5-Hydroxy-4-methoxy-2-methylbenzaldehyde	Acetic acid; 1-(4-hydroxy-3-methoxyphenyl)propan-1-one
3-Chloro-2-methoxyaniline	Benzaldehyde, 3-(2-hydroxyethoxy)-4-(1-methylethoxy)-	4-Methoxy-6-methylbenzene-1,3-diol	2-Pyridinecarboxamide, 1,6-dihydro-5-hydroxy-6-oxo-
3-(Trifluoromethoxy)benzonitrile	3-Ethoxy-5-hydroxybenzaldehyde	4-Bromo-5-methoxythiophene-2-carbaldehyde	1-[4-Hydroxy-3-methoxy-5-[(Z)-prop-1-enyl]phenyl]ethanone
2-(Methoxymethyl)-1-pyrrolidinecarbaldehyde	2-Methoxy-4-(methoxymethyl)aniline	3-Methyl-4-sulfanylidene-3,4-dihydropyrimidin-2(1H)-one	1-[3-Methoxy-4-[(Z)-prop-1-enoxy]phenyl]ethanone
3H-Pyrimidine-4-thione, 5-hydroxy-2-methyl-3-vinyl-	3-Methoxy-4-methylpyridin-2-amine	4-(Ethylamino)benzaldehyde	3-Acetyl-2-methylbenzonitrile
3-(4-Hydroxy-3-methoxyphenyl)-1-phenylprop-2-en-1-one	5-Methoxyisoindolin-1-one	2-Chloro-6-(methyloxy)-4-nitrophenol	1-(3-Methoxy-2-methyl-4-methylsulfanylphenyl)ethanone
Danielone	6-Methoxy-4,5,6-trimethylcyclohexa-2,4-dien-1-amine	[(1S,3R)-3-Methoxycyclohexyl]methanol	(1R,2R)-2-Methoxybicyclo[4.1.0]heptan-7-one
Homovanillin	2-Methoxy-4-methylcyclohexan-1-ol	6-Methoxy-4-methyl-2H-pyran-2-one	2-Methoxybicyclo[4.1.0]heptan-7-one
1,4-Dihydroxy-2-methoxy-6-methylbenzene	1-Ethyl-3-methyl-4-sulfanylideneimidazolidin-2-one	1-(3-Ethoxy-4-hydroxyphenyl)ethanone	2-Methoxy-4-[(phosphanylamino)methyl]phenol
4-(Methylsulfinyl)phenol	2-Hydroxy-5-methylcyclohexa-2,5-dien-1-one	2-Oxopyran-4-carbaldehyde	2-Bromo-5-ethoxybenzonitrile
Ethanone, 1-(2-chloro-4-hydroxy-5-methoxyphenyl)-	3-Methyl-5-methylidene-2-sulfanylidene-1,3-oxazolidin-4-one	1-(4-Hydroxy-3-phenylmethoxyphenyl)ethanone	3-Methoxypyrazole-1-carboxamide
3-Chloro-2-methoxyphenol	3-Methyl-5-methylidene-2-sulfanylidene-1,3-thiazolidin-4-one	1-(3-Ethoxy-4-methoxyphenyl)ethanone	5-Ethoxy-2-methylbenzonitrile
2,4(1H,3H)-Pyrimidinedione, 1-(hydroxymethyl)-3-methyl-	3-Amino-1-ethyl-6-methylpyridin-2(1H)-one	2,4-Dimethoxy-6-methylphenol	1-(4-Hydroxy-3-trifluoromethoxyphenyl)ethanone
4-Hydroxyisophthalaldehyde	3-[10-(3-Formylphenoxy)decoxy]-4-hydroxybenzaldehyde	2-Ethoxy-4-methoxyaniline	4-Dimethylphosphoryl-1-ethyl-2-methoxybenzene
2-Methoxy-4-methylaniline	4-Hydrazinyl-3-methoxybenzoic acid	1,3-Diamino-5-fluoropyrimidine-2,4-dione	2-Methylidene-3-oxocyclohexane-1-carbonitrile
2-Ethoxy-4-nitrophenol	5-Formyl-2-hydroxybenzonitrile	2-Bromo-1-(3-chloro-4-hydroxyphenyl)ethanone	5-Quinolinecarbonitrile, 8-amino-
4-Hydroxy-3-nitrosobenzaldehyde	3-Hydroxybenzene-1,2-dicarbaldehyde	2-Methoxy-5-methyl-4-(methylthio)phenol	(2R,5S)-2-Methoxy-5-(methoxymethyl)oxolan-3-ol
2,6-Dichloro-4-(hydroxymethyl)phenol	3,4-Difluoro-2-(fluoromethoxy)aniline	2-Methoxy-5-methyl-4-methylsulphinylphenol	3-Methoxy-4-methylidenecyclohexa-2,5-dien-1-one
Benzenemethanol, 2-chloro-4-hydroxy-5-methoxy-	2-Ethoxy-3,4-difluoroaniline	5-Methanesulfinyl-2-methoxy-4-methylphenol	6-(Methoxymethyl)cyclohexa-1,3-diene-1-carbonitrile
1-(2-Chloro-4-hydroxy-3-methoxyphenyl)ethanone	5,6-Dimethoxypyridazine-3-carboxaldehyde	4-Hydroxy-2,5-dimethylbenzaldehyde	4-Cycloprop-2-en-1-yl-2-methoxyphenol

Benzenemethanol, 2-chloro-4-hydroxy-3,5-dimethoxy-	3-Cyclopent-3-enyloxy-4-methoxybenzaldehyde	(2,5-Dimethoxyphenyl)hydrazine	4-Cyclopropyl-2-methoxycyclohexa-1,5-dien-1-ol
1,4-Benzenediol, 2-chloro-, 4-acetate	Methyl-2-fluoro-4-hydroxy-5-isopropoxybenzoate	1-[3,5-Dichloro-4-(methylamino)phenyl]ethan-1-one	4-Cyclopropyl-2-(difluoromethoxy)-N,6-dimethylaniline
2,3,5-Trichloro-4-ethenyl-6-methoxyphenol	3-Cyclopent-2-enyloxy-4-methoxybenzaldehyde	1-[3,5-Dichloro-4-(ethylamino)phenyl]ethan-1-one	4-(Hydroxymethyl)-2-methoxy-6-methylphenol
4-Ethyl-2-methoxy-6-methylphenol	1-Fluoro-2-isocyanato-4-methoxybenzene	1-Chloro-3,5-dimethoxy-2-methylbenzene	Phosphanyl 4-aminooxy-3-methoxybenzoate
4-Ethyl-2-methoxy-5-methylphenol	1,3-Diamino-1H-pyrimidine-2,4-dione	(3-Chloro-5-methoxyphenyl)methanol	3-Ethyl-4-hydroxybenzonitrile
2-(Dichloromethoxy)phenol	4-Methyl-3-oxopiperazine-1-carboxylic acid	4-Chloro-3-methoxybenzaldehyde	3-(4-Hydroxy-3-methoxyphenyl)-3-oxopropanenitrile
1-(2-Chloro-4-hydroxy-3,5-dimethoxyphenyl)ethanol	4-Methoxy-3-[(2-methylpropan-2-yl)oxy]benzaldehyde	2-Chloro-5-methoxybenzaldehyde	4-Acetyl-1-ethylpyridin-2-one
1-(2,6-Dichloro-4-hydroxy-3,5-dimethoxyphenyl)ethanol	2,3-Bis(methoxymethyl)phenol	3-Hydroxy-5-iodo-4-methoxybenzaldehyde	6-Acetyl-1-methyl-3-(methylamino)-3,4-dihydropyridin-2-one
2-Chloro-4-hydroxybenzaldehyde	2-Methoxy-4-methyl-6-(prop-2-en-1-yl)phenol	3,5-Dihydroxy-4-methoxybenzaldehyde	2-(4-Hydroxy-3-methoxyphenyl)-1-phenylprop-2-en-1-one
3,5-Dihydroxypyrimidine-2,4(1h,3h)-dione	1,5-Diisocyanato-2,3-dimethylbenzene	5-Acetylthiophene-3-carbonitrile	3-(Cyanomethyl)cyclobutane-1-carbonitrile
Phenol, 2-chloro-4-ethenyl-6-methoxy-	(4-Formyl-2-methoxyphenyl)hypobromite	5-Chloro-8-hydroxy-2-methylquinoline	3,4-Dihydroxy-5-methoxybenzonitrile
1-(3-Chloro-4-hydroxy-5-methoxyphenyl)ethanol	4-Hydroperoxy-3-methoxybenzaldehyde	8-Methylquinoline-5-carbonitrile	4-Hydroxy-3-(trifluoromethyl)benzamide
2-Hydroxy-5-carbomethoxybenzyloxyamine	2-Hydroxy-1-(3-hydroxy-4-methoxyphenyl)ethanone	4-(Ethoxymethyl)-1,2-dimethoxybenzene	3-Cyclopropyl-4-hydroxybenzamide
1,3-Dimethyl-4-thiouracil	3-Fluorophthalaldehyde	4-Methoxy-2-methylthiophene-3-carbaldehyde	4-Methoxy-6-(methoxymethyl)pyridin-3-ol
4-((3,7-Dimethylocta-2,6-dien-1-yl)oxy)-3-methoxybenzaldehyde	3-Ethoxy-4-[(2-methyl-2-propen-1-yl)oxy]benzaldehyde	4-Methoxythiophene-3-carbaldehyde	2-Ethoxy-4-prop-2-enylphenol
5-Acetylsalicylamide	3-Ethoxy-4-hydroxy-5-(2-methyl-2-propen-1-yl)benzaldehyde	Prenyloxyvanillin	Ethanone, 1-(4-chloro-3-ethoxyphenyl)-
2-Hydroxy-1-(4-hydroxy-3-methoxyphenyl)propan-1-one	4-Hydroxy-3-methoxy-5-(2-methylprop-2-enyl)benzaldehyde	4'-Ethoxy-3'-methylacetophenone	2-Ethoxy-5-nitrophenol
3-Pyridazinamine, 4-methoxy-6-methyl-	3-Hydroxy-4-sulfanylbenzaldehyde	3-Hydroxy-4-(trideuteromethoxy)benzaldehyde	3'-Ethoxy-5'-fluoroacetophenone
1-[4-Hydroxy-3-methoxy-5-(prop-2-en-1-yl)phenyl]ethanone	3,5-Difluoro-4-methoxyfuran-2-carbaldehyde	5-Methylcycloheptane-1,4-dione	1-Amino-2H-azepin-7-one
4-(Heptyloxy)-3-methoxybenzaldehyde	Aminopyrone	3-Ethoxy-4,5-dihydroxybenzaldehyde	(4-Fluoro-3-methoxyphenyl)acetate
CID 226341	3-(1,1,2-Trifluoroethoxy)benzaldehyde	4-Amino-3-chloro-5-(trifluoromethyl)benzaldehyde	4-Hydroxy-1-(4-hydroxy-3-methoxyphenyl)pentane-1,3-dione
Vanillin	1-Aminopiperidine-4-carbaldehyde	6-Methoxyindan-5-ol	1-(4-Hydroxy-3-methoxyphenyl)undecane-1,2-dione
1,2-Bis(4-hydroxy-3-methoxyphenyl)ethanol	4-Chloro-2-(chloromethyl)-6-methoxy-3-methylaniline	6-Hydroxy-2,3,4-trimethylbenzaldehyde	Propanoyl vanillin

1-(4-Hydroxy-3-methylphenyl)propan-1-one	3-(Chloromethyl)benzaldehyde	2-Methyl-5-methoxyhydroquinone	O-(2,4-Dimethoxyphenyl)hydroxylamine
2,6-Dimethyl-3-hydroxy-4H-pyran-4-one	5-Hydroxy-4-oxo-4H-pyran-2-carbaldehyde	1-(Chloromethyl)-4-methoxy-2-(methoxymethyl)benzene	2-Hydroxy-3-methoxybicyclo[2.2.1]heptane-7-carbonitrile
1-(3,4-Dimethoxyphenyl)-2-(4-hydroxy-3-methoxyphenyl)ethane-1,2-dione	3-Butoxy-5-fluoro-4-hydroxybenzaldehyde	3,4-Dibutoxybenzaldehyde	4-Amino-5-ethoxy-2-fluorobenzoic acid
3-Chloro-1-(4-hydroxy-3-methoxyphenyl)propan-1-one	2,4-Diisocyanato-1-prop-1-en-2-ylbenzene	1-Amino-5-fluorouracil	2-(Difluoromethyl)-4-methoxyphenol
Propyl 4-hydroxy-3-methoxybenzoate	3-Benzyloxy-4-hydroxy-5-iodobenzaldehyde	1-(4-Hydroxy-3-methoxyphenyl)prop-2-en-1-one	(E)-1,5-Bis-(4-hydroxy-3-methoxyphenyl)-pent-4-ene-1,3-dione
3'-Chloro-4'-aminoacetophenone	3-Hydroxy-6-methylphthalaldehyde	3-Methoxy-2-sulfonylbenzaldehyde	1,5-Bis(4-hydroxy-3-methoxyphenyl)pent-4-ene-1,3-dione
3-Ethoxy-4-hydroxy-5-iodobenzaldehyde	3-Ethoxy-4-methylbenzonitrile	2-Mercapto-3-methoxybenzonitrile	(3-Hydroxy-2-methoxyphenyl)cyanate
2,4-Dimethoxybenzamide	3-Fluoro-4-hydroxybenzamide	4-Acetylthiophene-2-carbaldehyde	1-[4-(Hydroxymethyl)-3-methoxyphenyl]ethanone
4-(1-Ethoxyethyl)-2-methoxyphenol	6-Fluoro-2-hydroxy-3-methoxybenzaldehyde	3-Methoxy-2-methylbenzaldehyde	1-Amino-3H-azepin-2-one
n-(2,4-Dimethoxyphenyl)formamide	6-Amino-2-chloronicotinonitrile	2,4-Dimethoxybenzenesulfinic acid	1-(4-Hydroxy-3-methoxyphenyl)ethanone;phenol
2-Chloro-1-(4-hydroxy-3-methoxyphenyl)ethanone	6-Ethoxy-1,3-benzoxazol-5-ol	4-Acetyl-2-oxopiperazine-1-carbonyl chloride	(5R)-3,3-Difluoro-4-methoxy-5-(methoxymethyl)oxolan-2-one
2-Hydroxy-3-methoxy-5-methylbenzonitrile	3-Isocyanatothiobenzaldehyde	1-(4-Hydroxy-2,3-dimethoxyphenyl)ethanone	5-Chloro-2,4-dimethoxyphenol
1-(5-Hydroxy-4-methoxy-2-methylphenyl)ethanone	4-Amino-3-methoxy-N,N-dimethylbenzenesulfonamide	4-Ethoxy-2-methylbenzaldehyde	3-Fluoro-5-hydroxy-1-methyl-6-oxo-1,6-dihydro-pyridine-2-carbonitrile
3-Ethoxy-4-methoxybenzaldehyde	3-Hydroxy-5-methoxy-4-methylbenzaldehyde	3-Hydroxy-4-pentyloxybenzaldehyde	3,5-Difluoro-1-methyl-6-oxo-1,6-dihydro-pyridine-2-carbonitrile
4-Methoxytropone	2,4-Difluoro-6-hydroxybenzaldehyde	2-Methoxymethyl-4-methylphenol	2,4-Dimethoxy-2H-pyrimidin-1-amine
6-(Hydroxymethyl)pyridine-3,4-diol	5-Chloro-2-fluoro-4-methoxybenzaldehyde	3-Oxo-1-cyclohexene-1-carbaldehyde	4-Methoxy-N-methyl-1,3-thiazole-2-carboxamide
5-Amino-1,3-dimethylpyrimidine-2,4(1H,3H)-dione	5-Chloro-2-fluoro-4-hydroxybenzaldehyde	5-Bromo-4-chloro-2-methoxyphenol	4-Methoxyfuro[3,2-b]pyrrol-6-ol
Benzaldehyde, 4,6-dihydroxy-2,3-dimethyl-	Methyl 4-chloro-3-(2-chloroethoxy)-2-methylbenzoate	n-(2-Methoxy-4-methylphenyl)acetamide	1H-Azepine-2,5-dione, tetrahydro-1-methyl-
2-Chloro-4-(hydroxymethyl)phenol	4-Hydroxy-3-(2-methylpropyl)benzaldehyde	4-(2-Hydroxyphenoxy)benzaldehyde	Acetic acid;1-(4-hydroxy-3-methoxyphenyl)propan-1-one
3'-Allyl-4'-hydroxyacetophenone	4-Hydroxy-3-(2-methylprop-2-enyl)benzonitrile	2-Fluoro-1-(3-hydroxy-4-methoxyphenyl)ethanone	4-(Aminooxymethyl)-2-methoxyphenol
4-Bromo-2-methoxyphenol	4-Bromo-3-methoxybenzonitrile	2-(3-Methoxyphenyl)acetaldehyde	1-Methoxyimidazo[1,2-b]pyrazol-3-ol
2-Bromo-3-chloro-4-hydroxy-5-methoxybenzaldehyde	4-Hydroxy-3-methoxy-5-propan-2-ylbenzaldehyde	4-Amino-3-chlorobenzaldehyde	3,5-Dichloro-2,6-dimethoxypyridine
2-Amino-4-hydroxy-3-methoxybenzaldehyde	4-Hydroxy-2,5-dimethylbenzonitrile	2-Methoxy-4-formylphenyl chloroformate	4-Methyl-2,3-dihydro-1-benzofuran-7-ol

5-Formyl-2-hydroxyphenyl acetate	3-Methoxy-4-(trifluoromethyl)benzonitrile	2,4-Diethoxyphenol	1-(4-Hydroxy-3-methoxyphenyl)-3-phenylprop-2-en-1-one
5-Hydroxy-2-methylpyrimidin-4(3h)-one	4-Hydroxy-3-methoxybenzaldehyde;sulfamic acid	2-Ethoxy-6-methyl-4-nitrophenol	1-(Aminomethyl)-3-methylpyrimidine-2,4-dione
4-Amino-2,5-diethoxybenzonitrile	2-(2,6-Difluorophenyl)-4-hydroxy-5-methoxybenzaldehyde	1-Aminopiperidin-2-one	4-Hydroxy-3-(methoxymethyl)benzamide
(2-Methoxyphenyl)acetaldehyde	4-Hydroxy-5-methoxy-2-(4-methoxyphenyl)benzaldehyde	1-(4-Amino-3-chloro-5-fluorophenyl)ethanone	4-Hydroxy-3-methoxy-2-methylbenzamide
8-Hydroxyquinoline-5-carbaldehyde	2-(2-Formyl-5-hydroxy-4-methoxyphenyl)benzoic acid	1-(4-Amino-3-chloro-5-(trifluoromethyl)phenyl)ethanone	5-Amino-1-hydroxy-4-methoxypyridin-2-one
5-Hydroxypicolinaldehyde	4-Hydroxy-2-[3-(hydroxymethyl)phenyl]-5-methoxybenzaldehyde	2-Chloro-4-methyl-6-methoxyphenol	6-Amino-2-hydroxy-5-methoxypyridazin-3-one
4-(Ethoxymethyl)-2,6-dimethylphenol	4-Hydroxy-5-methoxy-2-phenylbenzaldehyde	3-Acetyl-4-hydroxycyclohexa-1,3-diene-1-carbonitrile	5-Ethoxy-4-fluorocyclohexene-1-carbonitrile
2-Chloro-4,5-dimethoxybenzaldehyde	4-Hydroxy-5-methoxy-2-(2-methylphenyl)benzaldehyde	Ethyl 5-acetyl-2-hydroxybenzoate	4-Hydroxy-3-(hydroxymethyl)benzonitrile
4-Methoxy-2-methylbenzaldehyde	2-(2-Fluorophenyl)-4-hydroxy-5-methoxybenzaldehyde	4-Methoxypyridine-2-carbonitrile	3-Ethoxybenzonitrile
3,4-Bis(prop-2-en-1-yloxy)benzaldehyde	2-(2-Ethylphenyl)-4-hydroxy-5-methoxybenzaldehyde	2-Bromo-1-(3-hydroxy-4-methoxyphenyl)ethanone	2,4-Bis(fluoromethoxymethyl)phenol
4-Methoxy-6-nitrobenzene-1,3-diol	4-Hydroxy-2-[4-(hydroxymethyl)phenyl]-5-methoxybenzaldehyde	Ethyl 3-ethoxy-4-hydroxybenzoate	1-(Bromomethoxy)-3-(methoxymethyl)benzene
Methyl 3,4-dihydroxybenzoate	3-Pyridinecarboxaldehyde, 6-hydrazinyl-	4-Ethoxy-3-hydroxybenzoic acid	3-(Difluoromethoxy)-2,4-difluorobenzamide
3-Methoxy-4-methylphenylacetone	5-Ethoxy-2-fluoro-4-hydroxybenzaldehyde	3-Fluoro-2-methoxyphenol	1-(4-Hydroxy-3-methoxyphenyl)ethanone; methanol
3-Methoxy-4-(methylamino)benzoic acid	3-Chloro-4-hydroxy-5-methylbenzaldehyde	1-(4-Hydroxy-2,3-dimethylphenyl)ethanone	4-Hydroxy-3-methoxybenzoic acid sodium
3-Hydroxyisoxazole-5-carboxamide	5-Ethoxycyclohexa-1,5-diene-1-carbaldehyde	6-Chloro-2,3,4-trimethoxyphenol	1-(4-Chloro-1-fluoro-3-methoxycyclohexa-2,4-dien-1-yl)ethanone
6-Methoxybenzofuran-3-ol	2-Ethyl-3-oxo-1H-pyrazole-5-carbonitrile	(R)-2-(3,4-Dimethoxyphenyl)oxirane	4-Hydroxy-5-methoxy-2-methylbenzoic acid
1-(4-Hydroxy-2,5-dimethylphenyl)ethanone	4-Ethoxy-3-fluorobenzaldehyde	2-Chloro-1,5-dimethoxy-3-methylbenzene	1-(4-Hydroxy-5-methoxy-2-methylphenyl)ethanone
1-(3,4-Dimethoxyphenyl)-3-(3-hydroxy-4-methoxyphenyl)prop-2-en-1-one	Benzaldehyde, 3-(fluoromethoxy)-	Ethyl 2-chloro-4-fluoro-5-isocyanatobenzoate	1-(2-Ethyl-4-hydroxy-5-methoxyphenyl)ethanone
3-Methyl-2-thioxo-1,3-thiazinan-4-one	Cycloheptanone, 3-methoxy-	4-Fluoro-2-methoxyaniline	3-Hydroxy-6-methylidenecyclohex-3-ene-1,2-dione
4-Hydroxy-2-methylbenzonitrile	3-Fluoro-4-aminobenzaldehyde	2-Bromo-1-(4-hydroxy-3-methoxyphenyl)ethanone	2-Methoxy-3-methyl-4-nitrophenol
1-(3-Chloro-6-hydroxy-2,4-dimethylphenyl)ethanone	3-Chloro-6-hydroxy-2-methylbenzaldehyde	alpha-Iodo-3'-methoxy-4'-hydroxyacetophenone	4-Acetyl-2-methoxybenzonitrile
3-Acetylphenyl isocyanate	(2R)-2-(3-Methoxyphenyl)oxirane	4-Cyanocyclohexanecarboxaldehyde	(3,5-Difluoro-3-methoxycyclohexa-1,4-dien-1-yl)methanol
N-(2-Methoxy-4-nitrophenyl)formamide	6-(4-Formyl-2-methoxyphenoxy)hexanoic acid	3-(2-Chloroethoxy)benzonitrile	2-(Difluoromethoxy)-4-propan-2-ylphenol

2-Hydroxy-3-methoxy-7,8-dihydrobenzo[7]annulen-9-one	1,3,6-Trimethyl-2-oxopyridine-4-carbonitrile	2-Amino-5-formyl-4-methylthiophene-3-carbonitrile	Chloro 4-chlorooxy-3-methoxybenzoate
1,3-Dimethyl-5-hydroxyuracil	2-Nitroso-4,5-dimethoxybenzaldehyde	3-Oxocyclopent-1-ene-1-carbonitrile	1-Amino-3-methyluracil
5-(Chloromethyl)-2-hydroxybenzaldehyde	4-Hydroxy-3-methoxy-2-prop-2-enylbenzaldehyde	2-Bromo-4-methoxymethylphenol	3-Methoxy-2-methyl-4-(methylamino)benzoic acid
1-Methyl-2-oxopyridine-3,4-dicarbonitrile	2,5-Dihydroxy-6-methoxybenzaldehyde	4-Tert-butyl-2-ethoxyphenol	5-(Chloromethyl)-2-methoxyphenol
5-Hydroxy-4-methoxy-1-methyl-3H-pyridine-2,6-dione	6-Hydroxy-2-methyl-3-methylidenecyclohexan-1-one	Methyl 3,4-diethoxybenzoate	O-(3-Methoxy-4-methylphenyl)hydroxylamine
4-(1-Ethylsulfanylethyl)-2-methoxyphenol	3-Chloro-4-hydroxybenzamide	2-Ethyl-4-hydroxy-3-methoxybenzaldehyde	1-(4-Aminooxy-3-methoxyphenyl)ethanone
1,2-Dimethoxy-4-(1-methoxyethyl)benzene	1H-Indazol-5-ol, 4-methoxy-	1-(5-Hydroxy-4-methoxy-2-methylphenyl)propan-1-one	4-Aminooxy-3-methoxybenzonitrile
Benzoic acid, 4-hydroxy-3-methoxy-, 1-methylethyl ester	2,6-Dimethoxy-3-methylpyridine	1-(4-Hydroxy-5-methoxy-2-methylphenyl)propan-1-one	1,3-Dimethoxy-6-methylcyclohexa-1,3-diene
5,6,7-Trichloroquinolin-8-ol	4-(Dimethoxymethyl)-2-methoxy-6-methylphenol	2-Methoxy-1-aminopyridinium	1-(4-Butoxy-3-hydroxyphenyl)ethanone
4-Methoxy-1-methylpyridin-2(1H)-one	5-Amino-3-ethyl-2,6-dimethylpyrimidin-4-one	4-Acetyl-2-methoxybenzaldehyde	4-Methyl-1-oxo-1,4-thiazepan-3-one
1-Chloro-2,4-diisocyanatobenzene	N-(2,3,4,6-Tetramethylphenyl)methanimine	6-Hydroxy-7-methoxytetralin	1-(4-Hydroxy-3-methoxyphenyl)but-2-en-1-one
1,3-Dichloro-dihydropyrimidine-2,4-dione	4-Hydroxy-3-methoxybenzaldehyde;praseodymium	4-(Hydroxymethyl)-2-methoxy-3-methylphenol	2-Methoxy-6-methyl-4-propylphenol
3-Hydroxy-4-methoxybenzamide	4,5-Dimethoxy-2-trimethylstannylbenzaldehyde	4-(Dimethylaminomethyl)-6-fluoro-2-methoxyphenol	1-[3-Hydroxy-2-(methoxymethyl)phenyl]ethanone
4-Hydroxy-3-methoxybenzamide	3-Hydroxy-2-(hydroxymethyl)benzaldehyde	Ethanone, 1-[4-hydroxy-3-(1-methylethyl)phenyl]-	3-Methyl-2-oxo-1H-pyridine-4-carbonitrile
4-Hydroxy-3,5-dimethoxy-N-methylbenzamide	4-Amino-2H-triazine-1-carbaldehyde	1-(3-Tert-butyl-4-hydroxyphenyl)ethanone	2-(4-Hydroxy-3-methoxycyclohexa-2,4-dien-1-ylidene)acetonitrile
4-Hydroxy-3-methoxybenzohydroxamic acid	5-Chloro-2-methoxy-4-methylaniline	4-Hydroxy-3-isopropylbenzoic acid methyl ester	4-Chloro-2,4-dimethoxycyclohexa-1,5-dien-1-amine
1,4-Methano-1H-cyclopenta[c]furan-3,5-dione, tetrahydro-	(3,5-Dichloro-2-methoxyphenyl)hydrazine	3-Dimethylamino-4-hydroxybenzoic acid methyl ester	N-[(3,4-Dimethoxyphenyl)methyl]methanimine
1,3-Bis(4-hydroxy-3-methoxyphenyl)prop-2-en-1-one	(5-Chloro-2-methoxy-3-methylphenyl)hydrazine	4-Cyclopropyl-2-methoxyphenol	4-(Dimethylamino)-2-(methylideneamino)phenol
1H-Pyrrole-3,4-dicarbonitrile, 2-amino-1-(ethylideneamino)-5-methyl-	(5-Chloro-4-methyl-2-methoxyphenyl)hydrazine	3-Acetyl-5-fluorobenzonitrile	Methyl 2-cyclopropyl-5-methoxybenzoate
(2-Methoxyphenyl)hydrazine	Benzoic acid, 2,3-dichloro-4-hydroxy-, methyl ester	5-Bromo-2-methoxy-4-methylphenol	1-(Difluoromethoxy)-3-(methoxymethyl)benzene
5-Hydroxypyrimidin-4(3H)-one	Methyl 2,3-difluoro-4-hydroxybenzoate	2-Amino-4-chloro-3,5-dicyanothiophene	1-Ethoxy-3-fluoro-5-methoxybenzene
1-(Methoxymethyl)pyridin-1-ium-3-carbonitrile	(4-Formyl-2-methoxyphenyl)carbamic acid	2H-1,3-Thiazine-2-thione, 5-acetyl-3,6-dihydro-	2-(Difluoromethoxy)-1-fluoro-4-methoxybenzene
3-Methoxy-4-hydroxyphenylglycolaldehyde	1-Butoxybutane;4-hydroxy-3-methoxybenzaldehyde	6-Methoxyoxane-2-carbonitrile	1-Fluoro-3-methoxy-5-(methoxymethyl)benzene
3-Dimethylallyl-4-hydroxybenzaldehyde	1-Cyclopropyl-2,4-dimethoxybenzene	Ethanone, 1-(2-amino-3,5-dimethoxyphenyl)-	2-Methyl-4-(methylamino)benzonitrile

4-Hydroperoxy-2-methoxy-phenol	(2,4-Dimethoxyphenyl)methanimine	5-Acetyl-2-hydroxybenzoyl chloride	3-(Methoxymethyl)-5-methylbenzaldehyde
4-Hydroxy-2-methylbenzaldehyde	3-Amino-1,6-dimethylpyrazin-2-one	3-(Chloromethoxy)benzonitrile	1-(3-Acetyl-5-bromo-4-hydroxyphenyl)ethanone
4-Hydroxy-2-methoxybenzaldehyde	(1-Amino-piperidin-4-yl)-methanol	4-Chloro-3-hydroxybenzaldehyde	3-Butoxy-4-hydroxybenzoic acid
4-Methoxybenzenecarbothialdehyde	1-(3-Tert-butyl-4-hydroxy-5-methylphenyl)ethanone	Methyl 4-acetyl-3-methoxybenzoate	(2-Chloro-5-ethoxy-4-methylphenyl)methanol
Vanillic acid, heptyl ester	(5-Formyl-2-methoxyphenyl) formate	3-Hydroxy-6-methyl-3,4-dihydro-2H-pyran-2-one	4-Bromo-2-fluoro-3-methoxybenzonitrile
3,4-Dimethoxybenzyl methyl ether	1-(3-Hydroxy-4-methoxyphenyl)butan-2-one	2-Methoxy-4-(2-hydroxyethenyl)phenol	3-(Cyclopropylmethoxy)-4-hydroxybenzaldehyde
1,3-Dimethoxy-2,4,5-trimethylbenzene	2,5,6-Trimethoxynicotinaldehyde	2,3-Dihydro-5-hydroxy-2-(hydroxymethyl)-4H-pyran-4-one	Deuterio-(2,3,5,6-tetradeuterio-4-deuteriooxyphenyl)methanone
2,3,5-Trichloro-4-hydroxybenzaldehyde	Piperidine-1,2-dicarbaldehyde	2,4-Dicyano-3-methylaniline	Vanillin-13C6
2,3,6-Trichloro-4-hydroxybenzaldehyde	8-Hydroxy-4-methylquinoline-5-carbonitrile	5-(Methoxymethyl)thiophene-2-carbaldehyde	2,3,6-Trideuterio-5-hydroxy-4-methoxybenzaldehyde
2,5-Dichloro-4-hydroxybenzaldehyde	2-Thiophenecarbonitrile, 5-chloro-4-formyl-	5-Hydroxy-1-methyluracil	2-Deuterio-4-methoxybenzaldehyde
Benzaldehyde, 4,5,6-trichloro-2-hydroxy	4-Iodo-3-methoxybenzonitrile	4-(1-Hydroxyethyl)-2,6-dimethoxyphenol	3-Deuterio-4-methoxybenzaldehyde
2,3,5,6-Tetrachloro-4-hydroxybenzaldehyde	4-Methoxy-3,5-dimethylpicolinaldehyde	3-Hydroxy-2-methoxy-6-(methoxymethyl)benzaldehyde	2-Deuterio-4-hydroxybenzaldehyde
5,6-Dichlorosalicylaldehyde	Methyl 3-(methoxymethyl)benzoate	2-Methoxy-3,4-dimethylphenol	2-Chloro-6-ethoxy-4-nitrophenol
2-Chloro-6-hydroxybenzaldehyde	5-Chloro-7-fluoro-quinolin-8-ol	2,3,4-Trimethoxy-5-methylphenol	Phenol, 2,4-dichloromethoxy-
2-Hydroxy-3,4,5-trimethyl-2-cyclopenten-1-one	Methyl 4-formamido-3-methylbenzoate	5-Acetyl-2-hydroxybenzene-1-sulfonyl chloride	2-Fluoro-4-(iodomethyl)-6-methoxyphenol
Vanillyl acetate	Methyl 3-chloro-4-formamidobenzoate	1-(4-Hydroxy-3-sulfanyphenyl)ethanone	2,3,6-Trichloro-4-hydroxy-5-methoxybenzaldehyde
3-(4-Hydroxy-3-methoxyphenyl)propanal	Methyl 4-formylamino-3-methoxybenzoate	Methyl 4-hydroxy-3-(trifluoromethyl)benzoate	3-Hydroxy-1-(4-hydroxy-3-methoxyphenyl)prop-2-en-1-one
Benzaldehyde, 3,4-dimethoxy-, o-methyloxime	Methyl 3-chloro-4-(methylamino)benzoate	3-Methoxy-4-propan-2-ylbenzaldehyde	Ethanone, 1-[3-chloro-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-
3-Allyloxy-4-methoxybenzaldehyde	3-Methyl-4-methylamino-benzoic acid methyl ester	Benzaldehyde, 4-methoxy-3-[(methylthio)methoxy]-	2-Oxo-3-oxabicyclo[3.1.0]hexane-6-carbaldehyde
3-Amino-2,6-dimethyl-4(3H)-pyrimidinone	2-Pyridinecarboxylic acid, 6-cyano-5-hydroxy-, methyl ester	6-Oxo-2,3-dihydropyran-2-carbaldehyde	4-Hydroxy-3-(methylsulfanyl)benzaldehyde
3-(Hydroxymethyl)-1-methylpyrrolidin-2-one	Methyl 5-formyl-2-hydroxy-3-iodobenzoate	Benzoic acid, 4-(mercaptomethyl)-3-methoxy-, methyl ester	3-Acetyl-2,4-dihydroxybenzaldehyde
p-Benzoquinone, 2,6-dimethoxy-, 4-oxime	2,3-Difluoro-4-hydroxybenzaldehyde	1-(4-Hydroxy-3-methoxyphenyl)butan-1-one	5-Methoxy-1-methyl-1H-imidazole-2-carbonitrile
2-Hydroxy-3,5,5-trimethyl-2-cyclohexen-1-one	Ethyl 3-chloro-4-hydroxy-5-methylbenzoate	1-(4-Hydroxy-3-methoxyphenyl)-pentan-1-one	(4S,6R)-4-Methoxy-6-methyloxan-2-one
4-Methoxycycloheptanone	Ethyl 3-chloro-5-fluoro-4-hydroxybenzoate	1-(4-Hydroxy-3-methoxyphenyl)hexan-1-one	3-(Hexyloxy)-4-propoxybenzaldehyde
2-Methoxymethyl-2-methylpyrrolidine-1-carboxaldehyde	2-Methoxy-4-(oxiran-2-yl)cyclohexan-1-ol	1-(4-Hydroxy-3-methoxyphenyl)heptan-1-one	2',4'-Dihydroxy-3'-methoxyacetophenone

4-(Benzyloxy)-2-fluoro-5-hydroxybenzaldehyde	4-Ethoxy-2,3-difluoro-6-methylbenzaldehyde	4-Carbamoyl-2-mercaptothiazole	1-(5-Bromo-2,4-dihydroxy-3-methoxyphenyl)ethan-1-one
4-(Benzyloxy)-3-hydroxybenzaldehyde	Benzaldehyde, 3-ethyl-4-hydroxy-5-methoxy-	2-N,N-Dimethylamino-5-hydroxy-4-pyrimidone	3-Chloro-4-methoxy-5-methylbenzaldehyde
3-Hydroxy-1,2,6-trimethylpyridin-4-one	3-(4-Benzyloxybutoxy)-4-hydroxybenzaldehyde	2,3,5-Trichloro-4,6-dimethoxyphenol	6-Bromo-1-ethenyl-3-hydroxypyridine-2(1H)-thione
Furan-2(5H)-one, 5-trichloromethyl-3-hydroxy-4-methyl-	3-Ethoxy-2-hydroxybenzonitrile	2,4,5-Trifluoro-3-methoxybenzonitrile	5-Isocyanato-2-methylbenzonitrile
3-Fluoro-2-methoxyaniline	5-Fluoro-2-hydroxy-3-methoxybenzonitrile	4-Iodo-3-methoxybenzaldehyde	1-Cyclohexene-1-carboxaldehyde, 2-chloro-3-(hydroxymethylene)-
2-Hydroxy-6-methylbenzaldehyde	4-(3-Methoxy-4-hydroxyphenyl)butanal	1-(4-Hydroxy-3-methoxyphenyl)propane-1,2-dione	3-(Difluoromethoxy)-2,4,6-trimethylbenzaldehyde
3-Hydroxy-4-methylbenzaldehyde	5-Ethyl-4-hydroxy-3-methylbenzaldehyde	5-Acetyl-2-chloro-4-hydroxybenzonitrile	4-Hydroxy-3-methoxy-5-nitrosobenzaldehyde
4-Formyl-2-methoxytropone	5-Methoxynicotinonitrile	1,4-Dihydro-5-hydroxy-4-oxo-2-pyridinecarboxaldehyde	2-Fluoro-6-hydroxy-3-methylbenzaldehyde
3-Ethoxy-4-propoxybenzaldehyde	5-Methoxycyclohexa-1,5-diene-1-carbaldehyde	4,5-Dihydroxy-2-methylbenzaldehyde	2-Methoxy-3-(methoxymethyl)phenol
2-Fluoro-4-hydroxybenzaldehyde	2-Chloro-1-(3-chloro-4-hydroxyphenyl)ethanone	1-(3,4-Dimethoxypyrazol-1-yl)ethanone	2-Propen-1-one, 3-(3-hydroxy-4-methoxyphenyl)-1-phenyl-
3-Fluoro-4-hydroxybenzaldehyde	3-(2-Ethoxyethoxy)-4-methoxybenzaldehyde	1-Methyl-2-oxo-1,2-dihydropyridine-4-carbaldehyde	Isomagnaldehyde
4-Fluoro-3-hydroxybenzaldehyde	3-Hydroxy-4-methylphthalaldehyde	Thieno[2,3-b]furan-5-carboxaldehyde	2-(Methoxymethyl)-4-nitrosophenol
2,4(1H,3H)-Pyrimidinedione, dihydro-1,3-dimethyl-	3-Chloro-4-methoxybenzamide	Benzofuran-6-carbaldehyde	1,3-Dimethyl-6-methylidene-2-oxopyrimidine-4-carbonitrile
5-Chloro-2-methoxyphenol	4-Hydroxy-3-isopropylbenzaldehyde	3-Methoxy-4-(methylthio)benzaldehyde	3-Amino-1,6-dimethyl-1,2-dihydropyridin-2-one
3,6-Difluoro-2-methoxyphenol	3-Chloro-2,4,5-trifluoro-6-methoxyaniline	Methyl 5-Formyl-2-hydroxybenzoate	2-Amino-4-chloropyrimidine-5-carbonitrile
5-Cyanotropolone	2-Fluoro-4-(methylamino)benzonitrile	2,3-Dimethoxy-4-methylphenol	4-Amino-2-fluoro-5-methoxybenzonitrile
3-Ethoxy-4-hydroxyphenylacetone	Cyclopentanol;3-hydroxy-4-methoxybenzaldehyde	2-Hydroxy-5-methoxy-3-methylcyclohexa-2,5-diene-1,4-dione	3-(3-Hydroxy-4-methoxyphenyl)-1-(4-hydroxyphenyl)prop-2-en-1-one
Methyl 3-methoxy-4-methylbenzoate	Benzaldehyde, 3-mercapto-4,5-dimethoxy-	2-Methoxy-3,5-dimethylbenzene-1,4-diol	6-Chloro-5-methoxynicotinaldehyde
3-Isopropoxy-4-methoxybenzaldehyde	1-(4-Chloro-2-fluoro-5-methoxyphenyl)ethanone	4-(2,3-Dihydroxypropoxy)-3-methoxybenzaldehyde	6-Chloro-4-methoxypicolinaldehyde
4-Methoxy-3-propoxybenzaldehyde	3,4-Dihydro-2H-1,4-benzoxazine-7-carboxamide	Cyclohexyl-(4-hydroxy-3-methoxyphenyl)methanone	5-Fluoro-6-methoxypyridine-2-carbaldehyde
3-Methoxy-4-propoxybenzaldehyde	2-Methyl-3-propoxybenzaldehyde	2'-Fluoro-4-hydroxy-3-methoxybenzophenone	2-Fluoro-3-methoxypyridine-5-carbaldehyde
3-Butoxy-4-methoxybenzaldehyde	7-Methyl-5-nitroquinolin-8-ol	4-Chlorobenzene-1,3-dicarbaldehyde	3-Isocyanatobenzaldehyde
2-Chloro-4-hydroxybenzonitrile	1-Methoxy-3-(methoxymethyl)-5-methylbenzene	6-Methoxy-5-methylpyridine-2-carbaldehyde	3-Iodo-5-methoxybenzaldehyde
3-Amino-2,6-dimethoxypyridine	Dihydroxytropylium	5-Methoxy-4-methylnicotinaldehyde	3-(Aminomethyl)-4-hydroxybenzaldehyde
2,4-Dimethoxyphenol	4-Hydroxy-5-methoxy-2-methylbenzaldehyde	3'-Ethoxy-4'-methylacetophenone	2-Formyl-6-hydroxybenzamide

2-Fluoro-3,4-dihydroxybenzaldehyde	3-Iodo-4-hydroxy-5-methylbenzaldehyde	4-Ethoxy-2,3-difluorobenzaldehyde	5-(4-Hydroxy-3-methoxyphenyl)penta-2,4-dienal
2-Fluoro-4,5-dihydroxybenzaldehyde	1,2,3,5-Tetrafluoro-4-methoxybenzene	3,4-Bis(difluoromethoxy)benzaldehyde	4-Hydroxy-3-octoxybenzaldehyde
4-Formyl-1,3-dimethyl-1,3(2H)-dihydroimidazole-2-thione	1-[4-(Hydroxymethyl)-5-methylimidazol-1-yl]ethanone	4-Amino-3,5-dichlorobenzaldehyde	1-(4-Hydroxy-3-methoxyphenyl)nonadec-2-en-1-one
2-Fluoro-3-methoxybenzyl alcohol	3,5-Dichloro-4-methoxy-2-methylbenzaldehyde	3-Bromo-5-methyl-4-hydroxybenzaldehyde	2-Chloro-3-(hydroxymethylidene)cyclopentene-1-carbaldehyde
(4-Fluoro-3-methoxyphenyl)methanol	2-Methoxy-6-methylpyridin-3-ol	1-Methyl-2-methoxy-6-methoxymethylbenzene	3-(Hydroxymethylidene)-2-methylcyclohexene-1-carbaldehyde
2-Chloro-5-hydroxy-2,4,6-cycloheptatrien-1-one	5-Thioxo-4,5-dihydro-1,3,4-oxadiazole-2-carboxamide	4-Hydroxy-3-methoxybenzoyl chloride	(4-Formyl-2-methoxyphenyl)3-(3,4-dihydroxyphenyl)prop-2-enoate
5-Chloro-2-hydroxy-2,4,6-cycloheptatrien-1-one	4'-Hydroxy-3'-methoxy-2-methyl-propiophenone	4-Hydroxy-5-isopropyl-2-methylbenzaldehyde	4,5-Dimethylthiophene-3-carboxamide
3-Fluoro-4,5-dihydroxybenzaldehyde	3-Hydroxy-2-methoxy-4,6-dimethyl-5-methylidenecyclohex-2-en-1-one	4-Amino-3-bromo-2,5-difluorobenzaldehyde	4-Bromo-2-fluoro-3-methoxybenzaldehyde
3-Chloro-4-fluorobenzaldehyde	3-Methoxy-4-methylbenzamide	4-Acetyl-2,6-dichloro-3-fluoroaniline	Methyl 4-chloro-3-ethoxybenzoate
5-Methoxy-2-thiophenecarboxamide	3-Methoxy-5-methyl-2-sulfanylbenzaldehyde	5-Acetyl-2-amino-6-fluoro-3-methylbenzonitrile	2-(3-Amino-2-oxopyrrolidin-1-yl)acetaldehyde
5-Isopropenyl-2-hydroxy-2,4,6-cycloheptatrien-1-one	7-Hydroxy-2,3-dihydro-1H-indene-4-carbaldehyde	3-Acetyl-5-chloro-2-fluorobenzonitrile	(E)-1,3-Bis(3-hydroxy-4-methoxyphenyl)prop-2-en-1-one
Benzoic acid, 3-formyl-4,6-dihydroxy-2,5-dimethyl-, methyl ester	4-Fluoro-2,5-dimethoxy-3,6-dimethylphenol	(NE)-N-[[3-(difluoromethoxy)phenyl]methylidene]hydroxylamine	Furoguaiacoxidin
2,4-Dihydroxy-3,6-dimethylbenzaldehyde	1-(3-Ethyl-4-hydroxy-5-methylphenyl)ethanone	2,4-Dihydroxy-3-chlorobenzaldehyde	2-Bromo-5-ethoxy-4-methylbenzaldehyde
6-Methoxy-2-(methylamino)tropone	2-Amino-4-methylpyrimidine-5-carbonitrile	3-Chloro-2-methoxybenzaldehyde	2-Methoxy-5-methyl-4-(oxiran-2-yl)benzonitrile
3-Ethoxy-4-hydroxybenzyl alcohol	2-Chloro-4,6-bis(methoxymethyl)phenol	4-Hydroxy-2,3-dimethylbenzaldehyde	2-[(3-Hydroxy-4-methoxyphenyl)methylidene]-3-methylbutanal
Benzaldehyde, 2-fluoro-5-hydroxy-4-methoxy-	1-Acetyl-3,6-dihydro-2H-pyridine-5-carbaldehyde	2-Fluoro-4-hydrazinylbenzonitrile	Butyl 3-hydroxy-4-methoxybenzoate
6-Fluorovanillin	2,4-Dimethyl-6-(methylideneamino)phenol	2-Chloro-5-methoxybenzonitrile	(E)-3-(4-Hydroxy-3-methoxyphenyl)-2-methylprop-2-enal
2-Fluoro-3-hydroxy-4-methoxybenzaldehyde	2,4-Dimethyl-6-(propylideneamino)phenol	(3-Methoxyphenyl)methanimine	Allylvanillin
3-Fluoro-4-hydroxy-5-methoxybenzaldehyde	3-Amino-1,5,6-trimethylpyridin-2-one	4-Formyl-1,2-benzoquinone	1-(4-Hydroxy-3-methoxyphenyl)-3-methylbutan-1-one
Benzaldehyde, 2-fluoro-4-hydroxy-2-methoxy-	3-Hydroxy-1,5,6-trimethylpyridin-2-one	[2-Ethoxy-3,5,6-trifluoro-4-(methoxymethyl)phenyl]methanol	3-Chloro-4-hydroxy-5-methoxybenzoyl chloride
3-Fluoro-5-hydroxy-4-methoxybenzaldehyde	3-Hydroxy-1,5,6-trimethylpyridine-2-thione	4-Formyl-1H-pyrazole-1-carbothioamide	7-Hydroxy-2-methylbenzo[b]furan-4-carbaldehyde
2-Fluoro-4-(hydroxymethyl)-6-methoxyphenol	3-Hydroxy-1,5-dimethylpyridine-2-thione	3-Methoxy-4-methylbenzonitrile	2-Chloro-1-(3-chloro-4-hydroxy-5-methoxyphenyl)ethanone

2,6-Difluoro-3-methoxybenzaldehyde	3-Hydroxy-1,6-dimethyl-1H-pyridine-2-thione	5-Hydroxy-2,3-dimethylpyran-4-one	4-Chloro-5-methoxy-1,2-thiazole-3-carbonitrile
2-Chloro-4,6-dimethoxyaniline	(4-Ethoxy-2-methylphenyl)methanol	2-Fluoro-6-methoxy-4-methylphenol	4-(2-Ethylbutoxy)-3-methoxybenzaldehyde
Benzaldehyde, 2,5-difluoro-3,4-dihydroxy-	4-Hydroxy-3-methoxybenzaldehyde; methoxy methane	5-Hydroxy-6-methoxy-1-indanone	(2S)-2-[3-(Difluoromethoxy)phenyl]oxirane
Benzaldehyde, 2,6-difluoro-3,4-dihydroxy-	3,4-Dihydroxybenzaldehyde; ethoxy ethane	1-Aminopiperidin-2-ol	4-Methoxy-3-(4-methylpentoxy)benzaldehyde
2-Allyl-3-hydroxy-4-methoxybenzaldehyde	2-Acetyl-4-hydroxy-3-methoxybenzaldehyde	5-Chloro-2,4-dihydroxybenzaldehyde	(2,4-Dimethoxy-6-methylphenyl)methanethiol
2-Ethoxy-4-prop-2-enylphenol	3-Methoxy-4-(sodiooxy)benzaldehyde	Methyl 4-(chloromethyl)-3-methoxybenzoate	2-Bromo-3-methoxybenzonitrile
1,3-Benzenedicarboxaldehyde, 2,4-dihydroxy-6-methyl-	N-Hydroxy-3-methoxy-4-methylbenzamide	1-(Cyanomethyl)cyclopentane-1-carbonitrile	Guaiacolethanone
2,5-Dimethoxy-4-methylbenzaldehyde	4-Methoxy-3-(trifluoromethoxy)benzaldehyde	Benzaldehyde, 3-(1,1-dimethylethyl)-4-hydroxy-5-methoxy-	3-Fluoro-5-methoxy-4-methylbenzaldehyde
Methyl 4-amino-3-methoxybenzoate	1-(3-Hydroxy-4-methoxyphenyl)propan-2-one	1-(3-Bromo-4-hydroxy-5-methylphenyl)ethanone	2-(3-Hydroxy-4-methoxyphenyl)propanal
2-Methoxy-N-methyl-4-nitroaniline	Methyl 5-methyl-6-oxo-1,6-dihydropyridine-2-carboxylate	Benzaldehyde, 5-acetyl-2,4-dihydroxy-	3-Chloro-5-methoxy-4-methylbenzaldehyde
3-Fluoro-4,5-dimethoxybenzaldehyde	(2-Formyl-4,5-dimethoxyphenyl)boronic acid	Phenol, 2-ethoxy-6-methyl-	2-(3-Methoxy-4-hydroxyphenyl)butanal
5-Fluoro-2,3-dimethoxybenzaldehyde	2,6-Difluoro-4-hydroxybenzaldehyde	4-Hydroxy-2,5-dimethoxybenzaldehyde	3-Bromo-5-methoxy-4-methylbenzaldehyde
2,3,4-Trimethoxyphenol	(4-Formyl-2-methoxyphenyl)(E)-3-(3,4-dihydroxyphenyl)prop-2-enoate	1-Nitroso-2,4-dimethoxybenzene	2-Hydroxy-5-(methoxymethyl)benzaldehyde
2-Fluoro-3,4-dimethoxybenzaldehyde	3-Ethoxy-4-(3-hydroxypropoxy)benzaldehyde	4-Chloro-2-fluoro-5-methoxybenzaldehyde	2-Ethoxy-4-(1-hydroxyethyl)phenol
2-Fluoro-4,5-dimethoxybenzaldehyde	2,5-Dimethyl-3-iodo-4-hydroxybenzaldehyde	2-Amino-5-bromo-4-hydroxy-3-methoxybenzaldehyde	1-(3-Ethoxy-4-hydroxyphenyl)propan-1-one
2-Chloro-3-hydroxy-4-methoxybenzaldehyde	6-Bromo-2,4-diethoxy-3-methylphenol	1-(Dichloromethyl)-2,4-diisocyanatobenzene	1-(3,4-Dihydro-2H-1,4-benzoxazin-7-yl)ethanone
Benzoic acid, 2,5-difluoro-4-hydroxy-3-methoxy-	(2E)-2-[(3-Hydroxy-4-methoxyphenyl)methylidene]-3-methylbutanal	2,3-Dihydrobenzofuran-6-carbaldehyde	5-Amino-4-chlorothiophene-2-carbonitrile
2,5-Difluoro-4-hydroxy-3-methoxybenzaldehyde	(2Z)-2-[(3-Hydroxy-4-methoxyphenyl)methylidene]-3-methylbutanal	N-[(3-Methoxyphenyl)methyl]methanimine	3-Chloro-4-hydroxy-5-trifluoromethyl-benzaldehyde
2,6-Difluoro-4-hydroxy-3-methoxybenzaldehyde	4-Methoxy-2,5-dimethylfuran-3-ol	3,4,4'-Trihydroxy-3'-methoxychalcone	3-Fluoro-4-methoxypicolinonitrile
Methyl 4-amino-3,5-dichlorobenzoate	3-Ethoxy-4-methylbenzaldehyde	3',4'-Dimethoxy-3,4-dihydroxychalcone	5-Chloro-4-methoxypyridine-2-carbaldehyde
4'-Amino-3',5'-dichloroacetophenone	3-Methoxy-6-methylbenzene-1,2,4-triol	3,4-Bis(3-methylbut-2-enoxy)benzaldehyde	4,6-Dimethoxypyridin-3-ol
3-(Trifluoromethoxy)benzaldehyde	(3-Hydroxy-4-methoxy-phenyl)-acetaldehyde	3-(Difluoromethoxy)-2,4,5-trifluorobenzamide	3-Chloro-4-methoxypyridine-2-carbonitrile
1-(3-Bromo-4-hydroxyphenyl)ethanone	4-Chloro-2-methoxy-N-methylaniline	6-Ethoxy-2,3-dihydro-1H-inden-1-one	1-(4-Hydroxy-3-methoxyphenyl)-3-(4-

			hydroxyphenyl)prop-2-en-1-one
2,6-Difluoro-3,4-dimethoxybenzaldehyde	4,5-Dihydroxy-2,3-dimethoxybenzaldehyde	Benzoic acid, 3,4-dihydroxy-5-(1-methylethoxy)-, methyl ester	4-Heptoxy-3-hydroxybenzaldehyde
4-Bromo-2-methoxy-5-methylphenol	4-Bromo-5-fluoro-2-methoxyphenol	4,5-Dichloro-2,3-dimethoxybenzaldehyde	Formic acid 2-methoxy-4-formylphenyl ester
3-Bromo-5-ethoxy-4-hydroxybenzaldehyde	2-Fluoro-1-methoxy-3-(methylsulfonyl)benzene	3-(2-Fluoroethoxy)benzaldehyde	3-Hydroxy-4-prop-2-ynoxybenzaldehyde
2,3,4,5-Tetrachloro-6-methoxyaniline	3,6-Difluoro-2-methoxybenzaldehyde	(4-Amino-3-chloro-5-trifluoromethyl-phenyl)-ethylene oxide	3-Hydroxy-4-(2-phenylpropoxy)benzaldehyde
3-Ethoxy-4-hydroxy-5-iodobenzonitrile	3-Methyl-5-(trifluoromethoxy)benzaldehyde	2-Amino-5-formylbenzonitrile	1-(4-Hydroxy-3-methoxyphenyl)-2-methoxyethanone
4-Bromo-5-(chloromethyl)-2-methoxyphenol	4-Fluoro-2-methoxy-N-methylaniline	1-(Methoxymethyl)-1,2-dihydro-5H-tetrazole-5-thione	1-(3-Hydroxy-4-methoxyphenyl)decan-1-one
4-Methoxy-3-[(2-methylprop-2-en-1-yl)oxy]benzaldehyde	3-[(2S)-Butan-2-yl]oxybenzaldehyde	1-Methoxy-3-methylnaphthalen-2-ol	1-(4-Hydroxy-3-methoxyphenyl)decan-1-one
2-Methyl-3-oxocyclohex-1-ene-1-carbaldehyde	3-Ethoxy-4-[(3-methyl-2-buten-1-yl)oxy]benzaldehyde	3-Hydroxy-6-(methoxymethyl)-2H-pyran-2-one	Chloro-(5-formyl-2-hydroxy-3-methoxyphenyl)mercury
1-Ethyl-3,5-dimethylpyrimidine-2,4(1H,3H)-dione	2-(3-Ethoxyphenyl)acetaldehyde	Cyclopentane-1,2-dicarbaldehyde	3,4-Dimethoxy-5-trimethylstannylbenzaldehyde
1,3-Dihydroxypyridin-2(1H)-one	2-Methoxy-4-[(2S)-oxiran-2-yl]phenol	3',5'-Difluoro-4'-hydroxyacetophenone	4-(2-Hydroxy-4-methylphenoxy)-benzaldehyde
3-Acetylbenzaldehyde	3-Chloro-4-hydroxy-N-methylbenzamide	(2R)-1-Methyl-5-oxopyrrolidine-2-carbaldehyde	4-Trifluoroethoxy-3-hydroxybenzaldehyde
4-Isobutoxy-3-methoxybenzaldehyde	4-Chloro-2-methoxy-N,5-dimethylaniline	5-Hydroxy-4-methoxy-2,3-dimethylpyridine	Benzaldehyde, 4-hydroxy-3-(3-methoxypropoxy)-
3-Methoxy-4-(3-methylbutoxy)benzaldehyde	5-Chloro-2,4-dimethoxy-N-methylaniline	5-Hydroxy-3-methyl-1H-pyrimidine-2,4-dione	Lactoyl vanillin
1-(3-Chloro-4-hydroxy-5-methylphenyl)ethanone	3-((R)-Sec-Butoxy)-4-methoxybenzaldehyde	2-Chloro-3-(hydroxymethylene)-1-cyclopentene-1-carbaldehyde	3-Methoxy-4-(pent-1-ynyloxy)benzaldehyde
6-Acetyl-2(3H)-benzothiazolone	4-Hydroxy-5-methyl-isophthalic acid dimethyl ester	2-Methoxy-4-(iodomethyl)phenol	4-Methoxy-3-(pent-1-ynyloxy)benzaldehyde
4-Hydroxy-3-methoxyphenyl thiocyanate	5-Hydroxy-3-methylpyridine-2-carbonitrile	3-Hydroxypyridine-2,6-dicarbaldehyde	3-Methoxy-4-(but-1-ynyloxy)benzaldehyde
1-Amino-4,6-dimethylpyridin-2(1H)-one	3-Hydroxy-4,6-dimethyl-1H-pyridin-2-one	3,5-Dimethoxybenzene-1,2-diol	4-Methoxy-3-(but-1-ynyloxy)benzaldehyde
4-Isopropoxy-3-methoxybenzaldehyde	(2S)-2-(3-Methoxyphenyl)oxirane	5-Formyl-2,3-dihydroxybenzonitrile	3-Ethoxy-5-fluoro-4-hydroxybenzaldehyde
1H-Isindol-1-one, 2-amino-2,3-dihydro-	2-(Difluoromethoxy)-4-nitroaniline	N-(4-Formylphenyl)formamide	4-Hydroxy-3-(2-hydroxyethoxy)benzaldehyde
5,7-Dimethyl-8-hydroxyquinoline	3-Amino-1-methyl-6-(trifluoromethyl)-1,2-dihydropyridin-2-one	4-Hydroxy-3-methoxybenzyl bromide	4-Hydroxy-3-(2-methoxyethoxy)benzaldehyde
3-Chloro-4-ethoxy-5-methoxybenzaldehyde	3-Amino-1-ethyl-6-(trifluoromethyl)pyridin-2(1H)-one	2,4-Dimethoxy-N-methylaniline	4-Hydroxy-3-methoxybenzaldehyde;(E)-4-(4-hydroxy-3-methoxyphenyl)but-3-en-2-one
1,3-Dimethylpyrimidine-2,4(1H,3H)-dithione	6-Methoxy-1H-indazol-5-ol	4-Chloro-2-(1,1,2,2-tetrafluoroethoxy)phenol	Ethyl 2-(4-formyl-2-hydroxyphenoxy)acetate

4-Hydroxy-5-methylisophthalaldehyde	3,4-Difluoro-5-methoxybenzaldehyde	1,4-Benzodioxine-6-carbaldehyde	3-Ethoxy-4-[(6-hydroxyhexyl)oxy]benzaldehyde
3-(Chloromethoxy)-4-methoxybenzaldehyde	3,4-Difluoro-5-hydroxybenzaldehyde	1,3-Dimethyl-5-(methylamino)pyrimidine-2,4(1H,3H)-dione	4-(2-Ethoxyethoxy)-3-hydroxybenzaldehyde
5-Amino-3-methylthiophene-2,4-dicarbonitrile	(3,4-Difluoro-5-methoxyphenyl)methanol	4-Tert-butoxy-3-methoxybenzaldehyde	3-Hydroxy-4-(3-methoxypropoxy)benzaldehyde
3-(Hydroxymethyl)-4-methoxybenzaldehyde	4-Hydrazinyl-3-(trifluoromethyl)benzonitrile	3-Hydroxy-4-isopropoxybenzaldehyde	4-(3-Fluoropropoxy)-3-hydroxybenzaldehyde
Ethanone, 1,1'-(4-hydroxy-1,3-phenylene)bis-	2,6-Dimethoxy-3-pyridinol	1-Chloro-2-(4-methoxyphenyl)hydrazine	4-Hydroxy-3-methoxybenzaldehyde; phosphoric acid
Isoeugenol	4-[(2R)-Oxiran-2-yl]phenol	3-Amino-1,3-thiazolidine-2-thione	2-Hydroxy-3-methoxybenzaldehyde; hydrate
Methyl 3,5-diformyl-2-hydroxybenzoate	4-Amino-3-methoxybenzoate	Ethyl 3-hydroxy-4-methoxybenzoate	1,1-Diethoxyethane; 4-hydroxy-3-methoxybenzaldehyde; propane-1,2-diol
3-Ethoxy-4-isopropoxybenzaldehyde	3-Ethoxy-4-fluorobenzaldehyde	7-Bromo-8-hydroxy-5-quinolinecarbaldehyde	Ethoxyethane; 4-hydroxy-3-methoxybenzaldehyde
2-Bromo-5-ethoxy-4-hydroxybenzaldehyde	3-Hydroxy-4-(2-methoxyethoxy)benzaldehyde	4-Acetoxy-2-methylphenol	(Z)-2-(4-Hydroxy-3-methoxyphenyl)-4-(4-hydroxyphenyl)-4-oxobut-2-enal
3-Allyl-5-ethoxy-4-hydroxybenzaldehyde	1-(3-Ethoxypiperidin-1-yl)ethanone	1-(3-Bromo-4-hydroxy-5-methoxyphenyl)ethanone	Deuterio-[3-(1,1,2,2-pentadeuterioethoxy)-4-(trideuteriomethoxy)phenyl]methanone
2-Bromo-3-chloro-5-ethoxy-4-hydroxybenzaldehyde	3-(3,4-Dimethoxyphenyl)-3-oxopropanal	1-(2-Hydroxy-3-methyl-5-nitrophenyl)ethan-1-one	1,1-Diethoxyethane; 4-hydroxy-3-methoxybenzaldehyde
2-Chloro-5-ethoxy-4-hydroxybenzaldehyde	2-[3-(Difluoromethoxy)phenyl]oxirane	1-(3-Chloro-2-hydroxy-5-nitrophenyl)ethanone	3-Ethoxy-4-hydroxybenzaldehyde
5-Bromo-4-(hydroxymethyl)-2-methoxyphenol	2,6-Diethoxypyridin-3-amine	Pyrrolidine-2,5-dithione	Hexadecanoic acid; 4-hydroxy-3-methoxybenzaldehyde
2-Chloro-6-ethoxy-4-(hydroxymethyl)phenol	4-Amino-3-ethoxy-benzoic acid methyl ester	3-Hydroxy-4-(2-propenyloxy)benzaldehyde	4-Hydroxy-3-methoxybenzaldehyde; pentanoic acid
1-(3-Hydroxy-4-methoxyphenyl)propan-1-one	Methyl 4-amino-3-(difluoromethoxy)benzoate	3-Allyloxy-4-hydroxybenzaldehyde	Formic acid; 4-hydroxy-3-methoxybenzaldehyde
2-Hydrazinylcyclohepta-2,4,6-trien-1-one	3,4-Dimethoxyphenylglyoxal hydrate	(3-Methoxy-2-methylphenyl)methanol	4-Hydroxy-3-methoxybenzaldehyde; (E)-octadec-9-enoic acid
3-Ethoxy-2-hydroxy-5-nitrobenzaldehyde	3,4-Dichloro-2,5-dimethoxyphenol	1,2-Dichloro-3,5-dimethoxybenzene	Dodecanoic acid; 4-hydroxy-3-methoxybenzaldehyde
Methyl 5-acetyl-2-amino-4-methylthiophene-3-carboxylate	4-Chloro-2,6-dimethoxyphenol	4-Chloro-2-methoxy-6-methylphenol	3-Ethoxy-4-hydroxybenzaldehyde; propane-1,2-diol
4-Hydroxy-3-iodobenzaldehyde	1-(2,3-Dichloro-4-hydroxy-5,6-dimethoxyphenyl)ethanone	1-Formyl-3-oxopiperazine	Hexanoic acid; 4-hydroxy-3-methoxybenzaldehyde
1-(3-Chloro-4-hydroxyphenyl)ethanone	3-Amino-4-hydroxy-5-methoxybenzaldehyde	4-Methyl-3-oxopiperazine-1-carbonyl chloride	4-Hydroxy-3-methoxybenzaldehyde; propanoic acid
1-(4-Hydroxy-3-iodophenyl)ethanone	(NE)-N-[[4-(methoxymethyl)cyclopenten-1-yl]methylidene]hydroxylamine	1,2,4-Triazin-5(4H)-one, 6-amino-3,4-dimethyl-	Butanoic acid; 4-hydroxy-3-methoxybenzaldehyde
3-Chloro-4-hydroxy-5-methoxybenzonitrile	7-Chloro-5-fluoro-quinolin-8-ol	6-Amino-4-methyl-3-sulfanylidene-3,4-dihydro-1,2,4-triazin-5(2H)-one	4-Hydroxy-3-methoxybenzaldehyde; octadecanoic acid

Thiophene-2,4-dicarbaldehyde	5,7-Difluoro-quinolin-8-ol	o-Methoxy-m-methyl-p-allylphenol	3-Ethoxy-4-hydroxybenzaldehyde;2-methoxy-4-prop-2-enylphenol
2,3-Diamino-6-(trifluoromethyl)-4(3H)-pyrimidinone	1-(4-Hydroxy-3-methoxyphenyl)-3-(3-hydroxyphenyl)prop-2-en-1-one	2-Chloro-4-hydroxy-3-methoxybenzoic acid	Acetic acid;3-ethoxy-4-hydroxybenzaldehyde
4-Oxopiperidine-1-carboxamide	1-(4-Hydroxy-3-methoxyphenyl)-3-(4-hydroxyphenyl)propan-1-one	Methyl 1-acetyl-1H-pyrrole-3-carboxylate	3,4-Dimethoxy(213C)cyclohexa-1,3,5-triene-1-carbaldehyde
4-Hydroxy-3-methoxy-5-methylbenzaldehyde	Ethyl 3-chloro-5-cyano-2-hydroxy-6-methylbenzoate	3-Methoxy-4-hydroxyphenylglyoxal	3-Hydroxy-4-(1,1,2-trifluoroethoxy)benzaldehyde
4-[(1S)-1-Hydroxyethyl]-2-methoxyphenol	3,4-Dimethoxy[7-13C]-benzaldehyde	3-Ethoxycyclohept-2-en-1-one	3-Hydroxy-4-(1,2,2-trifluoroethoxy)benzaldehyde
2-Hydroxy-4-pyridinecarboxaldehyde	Methyl 3,4-Dimethoxy[7-13C]-benzoate	3,4-Diisopropoxybenzaldehyde	Ethanol;4-hydroxy-3-methoxybenzaldehyde;sulfuric acid
Methyl 4-amino-3-chlorobenzoate	2-Pyridinecarbonitrile, 5-hydroxy-, 1-oxide	2-Bromo-4-hydroxy-3,5-dimethoxybenzaldehyde	2-(2-Fluoro-4-hydroxy-5-methoxyphenyl)acetaldehyde
3-Allyl-4-hydroxy-5-methoxy-benzaldehyde	6-Methoxypyridine-2-thiol	4-Ethoxy-2-methoxyaniline	3-Hydroxy-4-methoxybenzaldehyde
cis-Isoeugenol	2,2,2-Trifluoro-1-(4-hydroxy-3-methoxyphenyl)ethanone	3-Amino-1-methylpyridin-2(1H)-one	3-Methoxy-4-methylperoxybenzaldehyde
4-(Hexyloxy)-3-methoxybenzaldehyde	2-Chloro-1-(4-hydroxy-3-methylphenyl)ethanone	5-Formyl-2-hydroxybenzoyl chloride	4-Hydroxy-3-methoxybenzaldehyde;prop-2-enyl hexanoate
3-(3-Methoxy-4-hydroxyphenyl)acrylonitrile	1-(4-Amino-3-chlorophenyl)-2-chloro-ethanone	3-Tert-butoxybenzaldehyde	3-Ethoxy-4-hydroxybenzaldehyde;1-(4-hydroxy-3-methoxyphenyl)propan-1-one
4-Butoxy-3-ethoxybenzaldehyde	5-Cyano-2-hydroxybenzoyl chloride	3,3'-Dimethoxy-4,4'-dihydroxybenzophenone	3-Ethoxy-2-fluoro-4-(2-hydroxyethoxy)benzaldehyde
4-Hydroxy-3-propoxybenzaldehyde	3-Hydroxy-4-methoxy-benzoyl chloride	4-Hydroxy-3-methoxy-2-methylbenzaldehyde	2-Hydroxy-3-methoxybenzaldehyde;4-hydroxy-3-methoxybenzaldehyde
5-Allyl-2-hydroxy-3-methoxybenzaldehyde	5-Carbamoyl-2-hydroxybenzoyl chloride	Ethanone, 1-[5-(1,1-dimethylethyl)-2,4-dihydroxyphenyl]-	(Z)-3-(4-Hydroxy-3-methoxyphenyl)-2-phenylprop-2-enal
4-(Hexyloxy)-3-hydroxybenzaldehyde	4-Acetyl-2-methoxybenzoyl chloride	4-Methoxy-5,6-dihydro-2H-thiopyran-2-one	2-(4-Hydroxy-3-methoxyphenyl)prop-2-enal
4-(4-Formyl-2-methoxyphenoxy)butanoic acid	3-(Ethenyloxy)benzaldehyde	5-Hydroxy-1H-pyridine-2-thione	2-Ethyl-4-hydroxy-3-methoxybenzaldehyde;4-hydroxy-3-methoxybenzaldehyde
3-Ethoxy-4-(2-hydroxyethoxy)benzaldehyde	2-Methyl-4-(methylamino)benzaldehyde	4-Hydroxy-3-isopropoxybenzaldehyde	3-Ethoxy-4-hydroxybenzaldehyde;prop-1-ene
3-Methoxythiobenzamide	6-Ethoxypyridine-2-carbaldehyde	N-(2,4-Dimethoxyanilino)formamide	4-(4-Formyl-2-hydroxyphenoxy)butyl nitrate
3-Bromo-5-ethoxy-4-hydroxybenzonitrile	(2S)-1-Methyl-5-oxopyrrolidine-2-carboxamide	1-(4-Amino-3-methoxyphenyl)ethanone	4-(4-Chlorobutoxy)-3-hydroxybenzaldehyde
4-Butoxy-3-methoxybenzaldehyde	1-(2-Thioxo-2,3-dihydrothiazol-4-yl)ethanone	1-(4-Hydroxy-3-iodo-5-methoxyphenyl)ethanone	4-(3-Bromopropoxy)-3-hydroxybenzaldehyde
4-(Allyloxy)-3-methoxybenzaldehyde	1-[3-Methyl-4-(methylamino)phenyl]ethanone	Methyl 3-methoxy-4-methylaminobenzoate	3-(4-Formyl-2-hydroxyphenoxy)propyl nitrate
3-Chloro-5-ethoxy-4-hydroxybenzaldehyde	1-(4-Amino-2,3-dimethylphenyl)ethan-1-one	3-Oxo-4-propan-2-ylidenecyclohexene-1-carbaldehyde	Azane;4-hydroxy-3-methoxybenzaldehyde;hydrochloride
3-Ethoxybenzenecarbothioamide	1-(4-Hydroxy-3-nitrosophenyl)ethanone	5-Methoxythiophene-2-carbaldehyde	4-Aminoxy-3-methoxybenzaldehyde;hydrochloride

3-Ethoxy-4-(2-methylpropoxy)benzaldehyde	4-(Hydroxymethyl)-1-methylpyridin-2(1H)-one	4-Methoxy-3-methyl-2-oxo-2H-pyran-6-carbaldehyde	4-Hydroxy-3-methoxybenzaldehyde;2-methylpropanoic acid;propan-2-one
4-(3-Ethoxy-4-hydroxyphenyl)-4-oxo-butyric acid	3,5-Difluoro-2-methoxyphenol	Methyl 2-azido-4-hydroxy-5-methoxybenzoate	Fulvene;4-hydroxy-3-methoxybenzaldehyde
1-[4-Hydroxy-3-(methoxymethyl)phenyl]ethan-1-one	2-Fluoro-6-hydroxy-3-methoxybenzaldehyde	(4S)-3-Oxo-4-prop-1-en-2-ylcyclohexene-1-carbaldehyde	4-Hydroxy-3-methoxybenzaldehyde;(9Z,12Z)-octadeca-9,12-dienoic acid
1-(3-Chloromethyl-4-hydroxyphenyl)-ethanone	4-Formyl-2-hydroxyphenyl acetate	3,4-Bis(2-methoxyethoxy)benzaldehyde	4-Hydroxy-3-methoxybenzaldehyde;2-methoxy-4-[(E)-prop-1-enyl]phenol
3-Isobutoxy-4-methoxybenzaldehyde	N-(2-Methoxy-4-nitrophenyl)nitrous amide	4-(2-Fluoroethoxy)-3-methoxybenzaldehyde	(E)-1-(4-Hydroxy-3-methoxyphenyl)nonadec-10-en-1-one
1-(2,4-Dimethoxyphenyl)-N-methylmethanamine	4-[2-(Hydroxyamino)propyl]-2-methoxyphenol	4-(3-Fluoropropoxy)-3-methoxybenzaldehyde	Butane-2,3-diol;1,1-diethoxyethane;4-hydroxy-3-methoxybenzaldehyde
3-Chloro-5-ethoxy-4-hydroxybenzoic acid	Methyl 3-fluoro-4-hydroxy-5-methoxybenzoate	4-(4-Hydroxy-3-ethoxyphenyl)-3-buten-2-one	4-Hydroxy-3-methoxybenzaldehyde;oxalane-2-carboxylic acid
3-Chloro-5-ethoxy-4-hydroxybenzonitrile	Methyl 3-acetyl-6-hydroxy-2,5-dimethylbenzoate	3-Methoxy-2-methylbenzamide	4-Hydroxy-3-methoxybenzaldehyde;(E)-5-methyl-2-phenylhex-2-enal
3-Chloro-4,5-dihydroxybenzaldehyde	3,5-Diethoxy-2-hydroxy-4-methylbenzaldehyde	4-Methyl-2-methoxyresorcinol	4-Hydroxy-3-methoxybenzaldehyde;(Z)-5-methyl-2-phenylhex-2-enal
4-(1,3-Dithiolan-2-yl)-2-methoxyphenol	(1R,5S,8R)-1,8-Dimethyl-3-azabicyclo[3.2.1]octane-2,4-dithione	1-(3-Hydroxy-4-methoxyphenyl)-3-methylbutan-1-one	3-Ethoxy-2-fluoro-4-hydroxybenzaldehyde
Phenol, 2-methoxy-4-(1-methylethenyl)-	2,3-Difluoro-4,5-dihydroxybenzaldehyde	Deuterio-(3,5-dideuterio-4-hydroxyphenyl)methanone	3-(Bromomethoxy)-4-hydroxybenzaldehyde
3-Hydroxypyridine-2-thiol	2,3,5-Trifluoro-4-hydroxybenzaldehyde	4-Hydroxybenzaldehyde-13C	4-Hydroxy-3-(3-methoxypropoxy)benzaldehyde;4-methoxy-3-(3-methoxypropoxy)benzaldehyde
3-Cyanophenyl isocyanate	1-(2-Sulfanylidene-3H-1,3-thiazol-5-yl)ethanone	2-Chloro-3-methoxybenzonitrile	(6-Formyl-2,3-dimethoxyphenyl)boronic acid
1-Chloromethyl-2,4-diisocyanatobenzene	2,4-Dimethoxycyclohexan-1-amine	1-(5-Chloro-4-fluoro-2-hydroxyphenyl)ethanone	3-Ethenyl-4-hydroxy-5-methoxybenzaldehyde
2-Fluoro-4-hydroxybenzonitrile	4-Benzofurancarboxitrile, 7-hydroxy-	3'-Methoxy-4'-hydroxychalcone	4-Hydroxy-3-methoxybenzaldehyde;4-methylhexanoic acid
2,4-Dimethoxybenzoyl chloride	6-Methylisoeugenol	3-Methoxy-5-nitrocatechol	4-Hydroxy-3-methoxybenzaldehyde;2-methylpentanoic acid
2-Fluoro-5-methoxybenzaldehyde	6-Methyl-eugenol	5-Methoxythiophene-2-carbonitrile	4-Hydroxy-3-methoxybenzaldehyde;(E)-2-methylbut-2-enoic acid
2-Fluoro-4-methoxybenzaldehyde	1-(3,4-Dihydroxyphenyl)-2-(3,4-dimethoxyphenyl)ethanone	4-Cyclopentyl-3-hydroxybenzaldehyde	4-Hydroxy-3-methoxybenzaldehyde;5-methylhexanoic acid
3-(2-Bromoethoxy)benzaldehyde	1,3-Difluoro-5-(fluoromethyl)pyrimidine-2,4-dione	4-Acetylcyclopent-2-en-1-one	4-Hydroxy-3-methoxybenzaldehyde;2-methylbutanoic acid
3-Chloro-4-hydroxybenzonitrile	3-Methoxy-4-sulfanylbzaldehyde	1-Acetyl-4-methyl-5-oxocyclohex-3-ene	4-(Difluoromethoxymethoxy)-3-hydroxybenzaldehyde
4-Amino-3-(trifluoromethoxy)benzonitrile	4-Ethyl-5-fluoro-2-methoxyphenol	4-Hydroxy-3-methoxy-5-phenylbenzaldehyde	4-[Difluoro(methoxy)methoxy]-3-hydroxybenzaldehyde

2,3-Difluoro-4-hydroxybenzonitrile	1-(2-Fluoro-4-hydroxy-5-methoxyphenyl)ethanone	1-(2,5-Dimethoxyphenyl)-N-methylmethanamine	4-Hydroxy-3-methoxybenzaldehyde;4-hydroxy-3-methoxy-5-(3-methylbut-2-enyl)benzaldehyde
3-(Difluoromethoxy)benzaldehyde	1-Ethyl-3-hydroxypyridine-2(1H)-thione	1-(3-Amino-4-ethoxyphenyl)ethanone	Calcium;4-hydroxy-3-methoxybenzaldehyde;carbonate
3-(Difluoromethoxy)benzonitrile	3-Ethenoxy-4-methoxy-2-trimethylstannylbenzaldehyde	(E)-3-(3-Hydroxy-4-methoxyphenyl)-1-(4-hydroxyphenyl)prop-2-en-1-one	Ethanol;ethoxyethane;4-hydroxy-3-methoxybenzaldehyde
3'-Fluoro-4'-hydroxyacetophenone	Methyl 3-methoxy-4-(trifluoromethyl)benzoate	4-(2-Ethoxyethoxy)-3-methoxybenzaldehyde	3,7-Dimethyloct-6-enal;ethanol;4-hydroxy-3-methoxybenzaldehyde
4-Fluoro-3-methoxybenzaldehyde	Methyl 5-chloro-6-methoxypicolinate	Benzaldehyde, 3-ethoxy-4-(2-methoxyethoxy)-	4-Hydroxy-3-methoxybenzaldehyde;hydrochloride
4-Fluoro-3-methoxybenzonitrile	Ethyl 5-chloro-6-methoxypicolinate	3-Ethoxy-4-(2-propoxyethoxy)benzaldehyde	4-Hydroxy-3-methoxybenzaldehyde;2,6,10-trimethylundec-9-enal
2-Fluoro-6-methoxyphenol	1-[3-(Difluoromethoxy)-5-fluorophenyl]ethanone	3-(2-Chloroethoxy)benzaldehyde	2-[4-Hydroxy-3-(trideuteriomethoxy)phenyl]acetaldehyde
4-Fluoro-2-methoxyphenol	4-Ethoxy-3,5-difluorobenzaldehyde	4-Fluoro-3-(trifluoromethoxy)benzonitrile	Butane-2,3-dione;4-hydroxy-3-methoxybenzaldehyde
3'-Fluoro-5'-(trifluoromethyl)acetophenone	4-Ethoxy-2,3-difluorobenzyl alcohol	3-Fluoro-4-methoxybenzamide	3-Methoxy-4-(trimethylsilylmethoxy)benzaldehyde
2-Acetyl-5-cyanothiophene	3-Ethoxy-2,4-difluorobenzaldehyde	2-Chloro-6-fluoro-3-methoxybenzonitrile	6-[(E)-But-1-enyl]-3-hydroxy-2-methoxybenzaldehyde
Methyl 3,5-dimethoxy-4-methylbenzoate	3-Ethoxy-2-fluorobenzonitrile	4-Hydroxy-2-iodo-5-methoxybenzaldehyde	2-Iodo-4-hydroxy-3-methoxybenzaldehyde
1-(3-Acetyl-2,3-dihydro-1H-imidazol-1-yl)-1-ethanone	3-Amino-6-methyl-2H-pyran-2-one	2-Ethoxy-3,5-dimethylaniline	3-Hydroxy-4-methoxy-2-pentylbenzaldehyde
2-Oxazolecarbonitrile, 5-ethoxy-4-methyl-	Anisaldehyde-[7-13C]	3-Hydroxy-4-isobutoxybenzaldehyde	4-Hydroxy-3-methoxybenzaldehyde;3-hydroxy-2-methylpyran-4-one
4-Methoxy-2,3,5-trimethylbenzaldehyde	4-Anisaldehyde-13C6	3-Hydroxy-4-(3-methylbutoxy)benzaldehyde	3-Ethoxy-4-hydroxybenzaldehyde;hydrochloride
2-Hydroxy-4,5-dimethyl-2,4,6-cycloheptatriene-1-one	5-Chloro-4-fluoro-2-methoxyaniline	Hydroxycyclohexadienone	Acetic acid;3-ethoxy-4-hydroxybenzaldehyde
3-Butoxybenzaldehyde	6-Chloro-2,3-dihydroxypyridine	2-Chloro-4-hydrazinylbenzonitrile	4-Hydroxy-3-methoxybenzaldehyde;4-(hydroxymethyl)-2-methoxyphenol
4-Difluoromethoxy-3-hydroxybenzaldehyde	4-Hydrazinyl-2-methylbenzonitrile	4-Ethylsulfonyl-2-methoxy-5-methylaniline	3,4-Dimethoxybenzaldehyde;3-hydroxybenzaldehyde
1-Isocyano-2,4-dimethoxybenzene	1-(4-Hydroxy-3-methoxyphenyl)-2-(4-hydroxyphenyl)ethanone	4-(2-Methylcyclopropyl)-2-methoxyphenol	4-Hydroxy-3-methoxybenzaldehyde;phenylmethanol
1-(2,4-Dimethoxyphenyl)-2-thiourea	2-(4-Hydroxy-3-methoxyphenyl)-1-(4-hydroxyphenyl)ethanone	4-Ethoxy-2,5-dihydroxybenzaldehyde	4-[(E)-But-2-en-2-yl]oxy-3-ethoxybenzaldehyde
2,4-Dimethoxythiophenol	1-(3-Hydroxy-6-methoxypyridin-2-yl)ethanone	1-(4-Hydroxy-3-methoxyphenyl)-2-butanone	4-[(E)-But-2-en-2-yl]oxy-3-methoxybenzaldehyde
3-Methoxy-4-(pentyloxy)benzaldehyde	1-[3-Methoxy-4-(methylsulfonyl)phenyl]ethan-1-one	1-Acetylpyrrole-3-carbonitrile	4-Hydroxy-3-[(E)-1-(4-hydroxy-3-methoxyphenyl)prop-1-en-2-yl]oxybenzaldehyde

2,6-Dimethoxyisonicotinaldehyde	4-Hydroxy-3-(2-hydroxyethoxy)benzonitrile	(4-Formyl-2-methoxyphenyl)hydrogen carbonate	4-Hydroxy-3-methoxybenzaldehyde;2-methoxyphenol
2-Chloro-1-(4-hydroxy-3,5-dimethylphenyl)ethanone	4-Hydroxy-3-methoxybenzaldehyde; 2-methoxy-4-methyl-phenol	2-Methoxy-3,4-dimethylaniline	(2E)-2-(3,4-Dimethoxyphenyl)penta-2,4-dienal
3-(Chloromethyl)-4-hydroxy-5-methoxybenzaldehyde	Benzoic acid, 4-amino-3-(2-fluoroethoxy)-, methyl ester	2-Bromo-1-(3-fluoro-4-hydroxyphenyl)ethanone	(2Z)-2-(3,4-Dimethoxyphenyl)penta-2,4-dienal
1-[3-(Difluoromethoxy)phenyl]ethanone	1-(2,4-Dihydroxy-5-methoxyphenyl)ethanone	(2-Methoxy-4-methylsulfonylphenyl)hydrazine	3-Hydroxy-4-methoxybenzaldehyde;prop-2-enoic acid
Ethyl 2,4,5-trifluoro-3-methoxybenzoate	5-Bromo-3-ethoxy-2-methylbenzaldehyde	(2E)-3,7-Dimethylocta-2,6-dienal;4-hydroxy-3-methoxybenzaldehyde	3,4-Dihydroxybenzaldehyde;4-hydroxy-3-propoxybenzaldehyde
1-(4-Fluoro-3-methoxyphenyl)ethanone	1-Ethyl-6-hydroxy-4,5-dimethyl-2-oxopyridine-3-carbonitrile	6-Oxotetrahydro-2H-pyran-2-carbaldehyde	3-(Chloromethoxy)-4-hydroxybenzaldehyde
2-Fluoro-5-methoxybenzonitrile	(E)-1,4-Bis(4-hydroxy-3-methoxyphenyl)-2,3-dimethylbut-2-ene-1,4-dione	3-Methoxy-4-(trifluoromethyl)benzaldehyde	4-Hydroxy-3-methoxy-2-propan-2-ylbenzaldehyde
5-Fluoro-2-methoxyphenol	1-(4-Amino-2-fluoro-5-methoxyphenyl)ethanone	4-Oxopyrimidine-1-carboxamide	4-Hydroxy-3-methoxybenzaldehyde;(9Z,12Z,15Z)-octadeca-9,12,15-trienoic acid
3-Fluoro-4-methylbenzaldehyde	3-Bromo-5-fluoro-2-methoxyphenol	3-Methoxy-4,5,6-trimethylbenzene-1,2-diol	(E)-3-(3,4-Dihydroxyphenyl)prop-2-enoic acid;4-hydroxy-3-methoxybenzaldehyde
4'-Hydroxy-3'-(trifluoromethyl)acetophenone	3-Propargyloxy-4-hydroxybenzaldehyde	3,4,5-Trimethoxybenzene-1,2-diol	4-Hydroxy-3-methoxybenzaldehyde;(E)-3-(4-hydroxy-3-methoxyphenyl)prop-2-enoic acid
1-(5-Acetyl-2,4-dihydroxy-3-methylphenyl)ethan-1-one	5-Chloro-3-methoxypyridin-2-amine	2-Fluoro-4-(methylamino)benzaldehyde	2-(4-Hydroxy-5-methoxy-2-methylphenyl)acetaldehyde
2,4,5-Trifluoro-3-methoxybenzamide	2-Methoxy-4-(thiophen-2-yl)phenol	2-Oxo-2h-pyran-5-carboxamide	2-(2-Ethyl-4-hydroxy-5-methoxyphenyl)acetaldehyde
1-(3-Chloro-4-hydroxyphenyl)propan-1-one	4-(2-Formylphenyl)-2-methoxyphenol	3-Oxocyclopentene-1-carbaldehyde	3-Hydroxy-4-[(2S)-2-phenylpropoxy]benzaldehyde
3-(Methylamino)-3,4-dihydroquinazolin-4-one	5-(2-Formylphenyl)-2-methoxyphenol	2-(3-Chloro-2-methoxyphenyl)acetonitrile	3-Hydroxy-4-[(2R)-2-phenylpropoxy]benzaldehyde
3-Iodo-4,5-dimethoxybenzaldehyde	4-(3-Formylphenyl)-2-methoxyphenol	2-(4-Fluoro-3-methoxyphenyl)acetonitrile	4-Methoxy-3-[(E)-4-methoxy-3-methylbut-1-en-1-yl]benzaldehyde
2,6-Difluoro-4-methoxybenzamide	5-(3-Formylphenyl)-2-methoxyphenol	Phenol, 2-methoxytrimethyl-	Ethoxyethane;3-hydroxy-4-methoxybenzaldehyde
2,6-Difluoro-4-hydroxybenzonitrile	4-(4-Formylphenyl)-2-methoxyphenol	1-Methoxy-3-(methoxymethyl)imidazolidin-2-one	2,5-Difluoro-3-hydroxy-4-methoxybenzaldehyde
3-Chloro-5-fluoro-4-hydroxybenzaldehyde	5-(4-Formylphenyl)-2-methoxyphenol	4-Ethoxy-2-methoxybenzoyl chloride	4-(4-Formylphenoxy)-3-hydroxybenzaldehyde
3-Fluoro-4-hydroxybenzonitrile	5-Hydroxy-2-iodo-4-(methoxymethoxy)benzaldehyde	4-Fluoro-3-methoxy-2-methylthiobenzoyl Chloride	3-Chloro-1-ethenylpyrimidine-2,4-dione
4-Hydroxy-3-(trifluoromethyl)benzonitrile	5-Acetyl-2-hydroxy-3-methoxybenzaldehyde	4-[(6-Hydroxyhexyl)oxy]-3-methoxybenzaldehyde	4-Hydroxy-3-methoxybenzaldehyde;(E)-3-phenylprop-2-enoic acid
2-Methoxy-5-(trifluoromethoxy)benzaldehyde	Ethyl 4-chloro-3-ethoxybenzoate	5-Ethoxynicotinaldehyde	2-(2-Hydroxy-3-methoxyphenyl)-2-oxoacetaldehyde
4-Amino-2-fluorobenzonitrile	2,4-Dimethoxy-6-methylaniline	3-Methoxy-2,4-dimethylbenzaldehyde	2-(3-Hydroxy-2-methoxyphenyl)-2-oxoacetaldehyde

Ethyl 4-chloro-5-cyano-2-hydroxybenzoate	5-Hydroxy-4,6-dimethyl-2,3-dihydro-1H-inden-1-one	4-Ethoxy-3,5-dimethylbenzaldehyde	(4-Formyl-2-methoxyphenyl) hypochlorite
6-Amino-2-methylnicotinonitrile	1-(4-Amino-3-ethoxy-phenyl)-ethanone	2-Thiophenecarboxaldehyde, 4-methoxy-	3-Hydroxy-5-(hydroxymethyl)-4-methoxybenzaldehyde
5-Acetylthiophene-2-carbaldehyde	2-(4-Fluoro-3-methoxyphenyl)acetaldehyde	4-Acetamido-3-methoxybenzaldehyde	3-Cyclopentyloxy-4-hydroxybenzoyl iodide
2-Hydroxybenzene-1,3,5-tricarbaldehyde	2-Chloro-3-fluoro-6-hydroxybenzaldehyde	4-Acetamido-3-methylbenzaldehyde	4-Hydroxybenzaldehyde;4-hydroxy-3-methoxybenzaldehyde
3-(Methylamino)thieno[3,2-d]pyrimidin-4-one	4,6-Dimethoxypyridin-3-amine	5-Oxo-1,2-oxazole-2-carboxamide	Ethene;4-hydroxy-3-methoxybenzaldehyde
4-Acetamido-3-ethoxynitrobenzene	4-Cyanotetrahydrothiophenone	3-Amino-1-methylpiperidine-2,6-dione	4-(Difluoromethoxy)-3-hydroxybenzaldehyde;3,4-dihydroxybenzaldehyde
4-Sec-butoxy-3-ethoxybenzaldehyde	Methyl 4-amino-3-(trifluoromethoxy)benzoate	1-(3-Methoxy-2,4-dimethylphenyl)ethanone	4-Hydroxy-3-methoxybenzaldehyde;1-(4-hydroxy-3-methoxyphenyl)but-3-en-2-one
2-Methoxy-4,5-dimethylphenol	(4-Amino-3-methoxyphenyl)methanol	2-Ethoxy-4-ethyl-5-methylphenol	3,4-Dihydroxybenzaldehyde;3-hydroxy-4-methoxybenzaldehyde
2-Bromo-5-ethoxybenzaldehyde	3-Hydroxy-4-(trifluoromethoxy)benzaldehyde	5-Formyl-2-hydroxy-3-methoxybenzonitrile	1,1-Diethoxyethane;4-hydroxy-3-methoxybenzaldehyde;prop-1-ene
2-Methoxy-4-(1-methylethyl)phenol	2,4-Dimethoxy-5-methylpyridine	2,3-Difluoro-4-hydroxy-5-methoxybenzaldehyde	1,1-Diethoxyethane;ethene;4-hydroxy-3-methoxybenzaldehyde
2,4-Dihydroxybenzonitrile	1-Chloro-5-isocyano-2,4-dimethoxybenzene	1-(4-Hydroxy-3-methoxyphenyl)-prop-2-yn-1-ol	Butane;1,1-diethoxyethane;4-hydroxy-3-methoxybenzaldehyde
2,4-Dihydroxy-3-methoxybenzoic acid	5,6-Dihydroxybicyclo[2.2.1]heptane-2-carbaldehyde	3-Amino-1-hydroxypiperidin-2-one	3-Ethoxy-4-hydroxybenzaldehyde;octan-2-ol
7-Chloro-5-methylquinolin-8-ol	Methyl 5-formyl-4-methylthiophene-2-carboxylate	6-Difluoromethoxy-3H-isobenzofuran-1-one	4-[(E)-Pent-2-en-3-yl]oxy-3-[(Z)-pent-2-en-3-yl]oxybenzaldehyde
3-Chloro-4-hydroxy-5-(isopropyl)benzaldehyde	4-Hydroxy-3-methoxybenzaldehyde;2-methylpropanoic acid	4-Chloro-5-(chloromethyl)-2-methoxyphenol	4-Hydroxy-3-methoxybenzaldehyde;1-(4-hydroxy-3-methoxyphenyl)ethanone
Ethyl 3-chloro-4-hydroxy-5-methoxybenzoate	(3-Fluoro-2-methoxyphenyl)hydrazine	6-Aminonicotinaldehyde	2-(4-Hydroxy-3-iodo-5-methoxyphenyl)acetaldehyde
3-Ethyl 1-methyl 4-hydroxy-1,3-benzenedicarboxylate	3-Methoxy-4-(trifluoromethoxy)benzaldehyde	3-Oxocyclohexa-1,5-diene-1-carbaldehyde	3-Hydroxy-4-methoxybenzaldehyde;nitric acid
Ethyl 3,5-dimethyl-4-hydroxybenzoate	4-Hydroxy-3,5-bis(trideuteriomethyl)benzonitrile	5-Hydroxy-6-methoxy-3H-isobenzofuran-1-one	3-Fluoro-4-hydroxy-5-propoxybenzaldehyde
6-Mercaptonicotinamide	2,3,4,5-Tetrafluoro-6-methoxyaniline	6-(Methylamino)nicotinaldehyde	3-(2-Bromoethoxy)-4-hydroxybenzaldehyde
2(1H)-Pyridinethione, 3-hydroxy-6-methyl-	2,4-Diisocyanatobenzoyl chloride	2-Bromo-4,6-dimethoxyaniline	3-Methoxy-4-sulfanyloxybenzaldehyde
Hexyl 3-hydroxy-4-methoxybenzoate	Formic acid 3-methoxyphenyl ester	3-Ethoxy-2,6-difluorobenzonitrile	3,4-Dimethoxybenzaldehyde;nitric acid
4-(4-Hydroxy-3-methoxyphenyl)-4-oxobut-2-enoic acid	3-(4-Hydroxy-3-methoxyphenyl)prop-1-en-1-one	2-Chloro-3-ethoxy-6-fluoro-5-hydroxybenzonitrile	1,1-Diethoxyethane;3-ethoxy-4-hydroxybenzaldehyde
2,4(1H,3H)-Pyrimidinedione, 5-hydroxy-1,3,6-trimethyl-	2-Ethoxycyclobutane-1-carbaldehyde	3-Ethoxy-2-fluoro-5-hydroxybenzonitrile	1,1-Dimethoxyethanol;4-hydroxy-3-methoxybenzaldehyde

1-Amino-5-chlorouracil	4-[(Hydroxyamino)methyl]-2-methoxyphenol	2-Fluoro-5-hydroxy-3-methoxybenzonitrile	4-(Iodomethoxy)-3-methoxybenzaldehyde
Vanilla S 10026	4-But-1-enyl-2-methoxyphenol	6-Chloro-3-ethoxy-2-fluorobenzonitrile	3-(5-Formyl-2-hydroxyphenoxy)-4-hydroxybenzaldehyde
4-(2-Hydroxyethoxy)-3-methoxybenzaldehyde	Bromovanillin	Potassium;4-hydroxy-3-methoxybenzaldehyde;hydroxide	4-Hydroxybutanal;4-hydroxy-3-methoxybenzaldehyde
5-Ethoxy-4-methoxy-2-methyl-benzaldehyde	1-Fluoro-2-methoxy-4,5-dimethylbenzene	4-Fluoro-2-methoxy-5-methylaniline	4-(1-Hydroxy-4-oxobutan-2-yl)oxy-3-methoxybenzaldehyde
2-Methylamino-pyrimidine-5-carbaldehyde	Iodovanillin	6-Methoxy-2,3-dihydrobenzoxazole	Acetaldehyde;ethanol;4-hydroxy-3-methoxybenzaldehyde
4-(Difluoromethoxy)-3-methoxybenzaldehyde	1-(3-Hydroxy-4-methoxyphenyl)propane-1,2-dione	1-(Chloromethyl)-2,4-dimethoxybenzene	Methyl 2-(5-formyl-2-hydroxyphenoxy)butanoate
2,3-Dimethyl-5-(methylamino)thiopyran-4-one	Methyl 2-fluoro-5-methoxy-4-propylbenzoate	2-Chloro-5-(trifluoromethoxy)benzaldehyde	4-Hydroxy-3-methoxybenzaldehyde;(2R,3S,4R,5R)-2,3,4,5,6-pentahydroxyhexanal
4'-Hydroxy-5'-isopropyl-2'-methylacetophenone	(2,4,5-Trichloro-6-methoxy-3-methylphenyl)hydrazine	5-Chloro-2-ethoxy-4-methoxyaniline	3-Hydroxy-2-methoxybenzaldehyde;3-hydroxy-4-methoxybenzaldehyde
4-Dimethylphosphorylphenol	4-Methoxy-2-(nitrosomethyl)phenol	3,5-Dichloro-2-methoxy-4-methylaniline	3,4-Dihydroxybenzaldehyde;propan-2-one
4-(Allyloxy)-3-ethoxybenzaldehyde	4-(Dichloromethyl)-2-methoxyphenol	3-Chloro-2,4-dimethoxyaniline	(E)-4-(4-Formyl-2-methoxyphenoxy)-3-methylbut-2-enoic acid
5-Oxopyrrolidine-3-carboxamide	3-(Chloromethoxy)benzaldehyde	2-Methoxy-4-nitrosoaniline	3-Hydroxy-4-methoxybenzaldehyde;4-hydroxy-3-methoxybenzaldehyde
Benzonitrile, 2,3,5,6-tetrafluoro-4-hydroxy-	Methyl 3,5-dimethoxy-4-(methylamino)benzoate	2-Ethoxy-5-fluorophenol	3,4-Dimethoxybenzaldehyde;ethanol
Ethanone, 1-(4-hydrazinophenyl)-	2-Chloro-4-hydroxy-3-methoxybenzoyl chloride	4-Hydroxy-3-methoxy-2-methylbenzoic acid	4-Hydroxy-3-methoxybenzaldehyde;methyl hydrogen carbonate
2,4-Difluoro-3-methoxybenzaldehyde	2-Ethoxy-4-(nitrosomethyl)phenol	2-Ethoxy-4-ethylphenol	Diethyl carbonate;4-hydroxy-3-methoxybenzaldehyde
3-Bromo-5-chloro-4-hydroxybenzaldehyde	4-(2-Hydroxyethoxy)-2-iodo-3-methoxybenzaldehyde	(E)-1-(2,4-Dichloro-5-isocyanatophenyl)-N-methoxymethanimine	Ethyl hydrogen carbonate;4-hydroxy-3-methoxybenzaldehyde
3-Hydroxy-1-methyl-2(1h)-pyridinethione	1-(2-Oxoethyl)triazole-4-carbonitrile	(E)-1-(2-Chloro-4-fluoro-5-isocyanatophenyl)-N-methoxymethanimine	Carbonic acid;3-ethoxy-4-hydroxybenzaldehyde
2,4-Difluoro-3-methoxyphenylacetone	1-(2,4-Dichloro-5-isocyanatophenyl)-N-methoxymethanimine	(3S,6R)-3-Hydroxy-6-methyloxan-2-one	Carbonic acid;4-hydroxy-3-methoxybenzaldehyde
5-Hydroxy-4-methoxybenzene-1,3-dicarbaldehyde	2,3,4,5-Tetramethyl-6-(methylideneamino)phenol	3-Hydroxy-1-(4-hydroxy-3-methoxyphenyl)decan-1-one	4-Hydroxy-3,5-dimethoxybenzaldehyde;sodium
1-(3-Ethoxyphenyl)ethanone	1-(Ethoxymethyl)-2,3,6-trifluoro-5-methoxy-4-methylbenzene	2-Benzyl-4-hydroxy-3-methoxybenzaldehyde	4-Hydroxy-3-methoxybenzaldehyde;sodium
2-Fluoro-3-methoxybenzaldehyde	3-(4-Hydroxy-3-methoxyphenyl)-2-oxopropanal	3-Sulfanylidene-cyclohexa-1,5-diene-1-carbaldehyde	4-Hydroxy-3-methoxybenzaldehyde;3-methoxybenzaldehyde
2,6-Difluoro-3-methoxybenzonitrile	2-Oxooxane-4-carbaldehyde	Dimethyl 2-methoxybenzene-1,4-dicarboxylate	1,1-Diethoxyethane;3-hydroxy-4-methoxybenzaldehyde
3-Ethoxy-4-hydroxybenzonitrile	2-Methoxy-4-(nitrosomethyl)phenol	1-Aminoazepan-2-one	3-Ethoxy-4-hydroxybenzaldehyde;2-methoxy-4-[(E)-prop-1-enyl]phenol

2-Ethoxy-6-fluorobenzaldehyde	Methyl 3,5-difluoro-4-hydroxybenzoate	5-Chloro-2,4-dimethoxybenzoyl chloride	4-Hydroxy-3-methoxybenzaldehyde;sulfurous acid
2',4'-Difluoro-3'-methoxyacetophenone	3-Chloro-4-diazo-6-ethoxy-N-methylcyclohexa-1,5-dien-1-amine	4,5-Difluoro-2-methoxyphenol	Hexadecanal;4-hydroxy-3-methoxybenzaldehyde
2,5-Difluoro-4-methoxybenzaldehyde	4-Ethoxy-3-(2-hydroxyethoxy)benzaldehyde	2-Methoxy-4-methylthio-5-fluoro-phenol	3-Hydroxy-2-methoxy-6-prop-2-enylbenzaldehyde
2,4-Difluoro-3-methoxybenzonitrile	Methyl 3-methoxy-5-methyl-4-(trifluoromethyl)benzoate	5-Hydroxy-2-(hydroxymethyl)-3H-pyridin-4-one	(E)-1,3-Diphenylprop-2-en-1-one;3-hydroxy-4-methoxybenzaldehyde
5-Ethoxy-2-hydroxybenzaldehyde	1-[4-(Difluoromethoxy)-3-hydroxyphenyl]ethanone	1-(4-Chloro-3-methoxyphenyl)ethanone	3,4-Dimethoxycyclohexa-1,3-dien-5-yne-1-carbaldehyde
3-Difluoromethoxy-4-methoxy-benzaldehyde	Ethyl 3-(5-formyl-2-hydroxyphenoxy)propanoate	1-(4-Ethyl-3-methoxyphenyl)ethanone	3-Butoxy-2-fluoro-4-hydroxybenzaldehyde
2,3-Dichloro-5-ethoxy-6-hydroxybenzaldehyde	1,2,4-Trifluoro-5-methoxy-3-(methoxymethyl)-6-methylbenzene	3-Bromo-5-fluoro-4-hydroxybenzaldehyde	3-Hydroxy-4-methoxy-2-(4-methoxyphenyl)benzaldehyde
5-Hydroxy-3H-1,3-thiazole-2-thione	1-Ethoxy-3-(ethoxymethyl)-2,4,5-trifluoro-6-methylbenzene	Methyl 3-ethoxy-4-hydroxybenzoate	4-[4-(Dihydroxyamino)oxybutoxy]-3-hydroxybenzaldehyde
Methyl 3-hydroxy-4-methoxybenzoate	2-Isocyanato-4-methoxyphenol	1-(4-Chloro-2-fluoro-5-propan-2-yloxyphenyl)ethanone	4-[3-(Dihydroxyamino)oxypropoxy]-3-hydroxybenzaldehyde
Methyl 2-hydroxy-5-methoxybenzoate	1,3-Dimethyl-5,6-dimethylidene-1,3-diazinane-2,4-dione	3-Methoxy-5-trifluoromethoxybenzaldehyde	3-Ethoxy-4-hydroxybenzaldehyde;4-hydroxy-3-methoxybenzaldehyde
2-Allyl-4-methoxy-5-hydroxybenzaldehyde	(4-Formyl-2-methoxyphenyl) 3-(4-hydroxy-3-methoxyphenyl)prop-2-enoate	[3-(Methoxymethyl)cyclopentyl]methanol	3-(2-Hydroxyethoxy)-4-(2-methoxyethoxy)benzaldehyde
3,4-Dipropoxybenzaldehyde	4-Amino-3-methoxybenzamide	3-(Isocyanomethoxy)benzaldehyde	3-Hydroxy-4-(2-phenylmethoxyethoxy)benzaldehyde
3-Hydroxy-4-methoxybenzophenone	3-Methyl-2-oxoimidazolidine-1-carbaldehyde	1-(Difluoromethoxy)-3-methoxy benzene	3-Hydroxy-4-methoxybenzaldehyde;1-(4-hydroxy-3-methoxyphenyl)ethanone
Phenyl(3-methoxy-4-hydroxyphenyl)methanone	5-Chloro-4-cyano-2-methoxybenzoyl chloride	1-(1-Acetylpyrrol-3-yl)ethanone	2-Fluoro-5-hydroxy-4-[2-(2-methoxyethoxy)ethoxy]benzaldehyde
5-Chloro-2,3-dimethoxybenzaldehyde	Ethyl (5-formyl-2-hydroxyphenyl) carbonate	4-Hydroxy-3-methoxybenzaldehyde;sulfuric acid	3-Hydroxy-4-[2-(2-methoxyethoxy)ethoxy]benzaldehyde
1-(3-Methoxyphenyl)-N-methylmethanimine	(2,4-Dimethoxyphenyl)diazene	3-Butyl-4-hydroxy-5-methoxybenzaldehyde	2-Hydroxy-3-methoxy-5-(2-oxoethyl)benzaldehyde
3-Ethoxybenzyl alcohol	(3-Hydroxy-4-methoxyphenyl)-(4-methylphenyl)methanone	4-Dimethylamino-3-methoxybenzaldehyde	3-Hydroxy-4-[(4-methylphenyl)methoxy]benzaldehyde
5-Methanehydrazonoyl-2-methoxyphenol	(2-Chloro-4-methoxy-6-methylphenyl)hydrazine	1-(4-Hydroxy-3-methoxyphenyl)-2,2-dimethylpropan-1-one	4-Hydroxy-3-[2-[2-(2-propoxyethoxy)ethoxy]ethoxy]benzaldehyde
1-Aminopyridin-2(1h)-one	Methyl 4-hydroxy-2-methyl-3-prop-2-enoxybenzoate	3-Bromo-1-ethenylpyrimidine-2,4-dione	3-[2-[2-[2-(2-Butoxyethoxy)ethoxy]ethoxy]ethoxy]-4-hydroxybenzaldehyde
Methanamine, N-[(3,4-dimethoxyphenyl)methyl]ene]-	3-Pyridinol, 4-methoxy-6-methyl-	1-Hydroxymethyl-3-methyl-imidazolidin-2-one	4-Methoxy-3-phosphanyloxybenzaldehyde
3-(4-Hydroxy-3-methoxyphenyl)-1-(4-methoxyphenyl)prop-2-en-1-one	5-Chloro-4-methyl-6-oxopyran-2-carbaldehyde	1-Hydroxybicyclo[3.1.1]heptan-2-one	4-[4-(4-Formyl-2-methoxyphenoxy)butoxy]-3-hydroxybenzaldehyde

4-Ethyl-2-methoxybenzenamine	6-(Hydroxymethyl)-4-methyliminopyran-3-ol	4-Hydroxy-2-methyl-5-trifluoromethylbenzoic acid methyl ester	3-(3-Methoxy-4-hydroxybenzyl)-4-hydroxy-5-methoxybenzaldehyde
1-(3-Methoxy-4-sulfanyphenyl)ethan-1-one	2-Methoxy-3-(trifluoromethoxy)benzaldehyde	4-Chloro-2-methoxy-3-methylaniline	(E)-6-(3-Methoxy-4-hydroxyphenyl)-5-hexene-1,2,4-trione
4-Mercapto-3-methoxybenzonitrile	2,3-Dimethoxy-4-aminopyridine	2-(Diaziridin-1-yl)cyclohexa-2,5-diene-1,4-dione	(5-Formyl-2-methoxyphenoxy)-hydroxyboron
3-Methoxy-4-methylbenzaldehyde	5-Methoxy-2-methylbenzonitrile	3-Oxopiperidine-1-carbaldehyde	3,4-Bis(hydroxymethoxy)benzaldehyde
3-Methoxy-4-[(2-methylprop-2-en-1-yl)oxy]benzaldehyde	3-Chloro-2,4,5-trimethyl-6-(trifluoromethoxy)aniline	1-(4-Methyl-5-sulfanylidenedithiol-3-yl)ethanone	Ethoxyethane;4-hydroxy-3-methoxybenzaldehyde;phenol
Methyl 3-bromo-4-hydroxybenzoate	4-Chloro-N-methyl-2-(methylideneamino)aniline	Hydrazine;4-hydroxy-3-methoxybenzaldehyde	(5-Formyl-2-hydroxy-4-methylphenyl) acetate
4-Methoxy-3-(pentyloxy)benzaldehyde	1,2,5-Trifluoro-4-methoxy-3-methylbenzene	5-Chloro-4-methylthiophene-3-carboxamide	3-Hydroxy-4-methoxybenzaldehyde;prop-1-ene
3-Hexoxy-4-methoxybenzaldehyde	3,4,5-Trimethyl-2-prop-2-enoxyphenol	4,5-Dichloro-2-(trifluoromethoxy)aniline	4-Hydroxy-3-methoxybenzaldehyde;prop-1-ene
Benzaldehyde, 3-(heptyloxy)-4-methoxy-	2-Propenal, 3-(3-hydroxy-4-methoxyphenyl)-, (E)-	1-Methyl-5-oxopyrrolidine-3-carbothioamide	3-(Fluoromethoxy)-4-hydroxybenzaldehyde
3-Ethoxyphenylacetone	1-Amino-2-sulfanylidene-pyrimidin-4-one	3,5-Difluoro-2,4-dihydroxybenzaldehyde	4-Hydroxy-2-(1-iodoethyl)-3-methoxybenzaldehyde
3-Chloro-2-methoxyphenylformamide	4-Hydroxy-3-(iodomethoxy)benzaldehyde	1-[3-Methoxy-4-[(E)-prop-1-en-1-yl]phenyl]ethanone	3-Ethoxy-4-hydroxybenzoyl iodide
5-Chloro-3-ethoxy-2-hydroxybenzaldehyde	1-Acetyl-piperidine-3-carbaldehyde	1-[4-Hydroxy-3-methoxy-5-[(E)-prop-1-en-1-yl]phenyl]ethanone	1-(4-Hydroxy-2-iodo-3-methoxyphenyl)propan-1-one
4(3H)-Pyrimidinone, 6-methoxy-3-methyl-	1-(6-Hydroxy-2,3-dimethylphenyl)ethanone	Benzamide, 3-chloro-4-hydroxy-N,N-dimethyl-	2-Ethyl-3-hydroxypyran-4-one;4-hydroxy-3-methoxybenzaldehyde
2-Fluoro-5-(trifluoromethoxy)benzonitrile	1-(3-Hydroxy-4-methoxy-2-prop-2-enylphenyl)ethanone	Ethanol;4-hydroxy-3-methoxybenzaldehyde	3-Ethoxy-5-ethyl-4-hydroxybenzaldehyde
3-Ethoxy-4-hexoxybenzaldehyde	5-Hydroxy-2-(hydroxymethyl)thiopyran-4-one	4-Hydroxy-3-methoxybenzaldehyde;prop-1-enoate	4-Hydroxy-3-methoxy-5-propoxybenzaldehyde
1-(4-Hydroxy-2,3,5-trimethylphenyl)ethanone	2-(5-Formyl-2-hydroxyphenoxy)acetic acid	3-Aminooxan-2-one	3-Fluoro-5-(3-fluoropropoxy)-4-hydroxybenzaldehyde
2,6-Difluoro-3-methoxybenzyl alcohol	1,4-Dimethyl-6-oxopyridine-2-carbaldehyde	4-Hydroxy-3-methoxybenzaldehyde;methanol	1-(4-Heptoxy-3-hydroxyphenyl)ethanone
3,5-Dimethyl-2-sulfanylidene-1,3,5-thiadiazinan-4-one	1-Amino-1,3-diazinane-2,4-dione	3-(Dimethylamino)-4-hydroxybenzaldehyde	4-Hydroxy-3-methoxybenzaldehyde;oxalic acid
4-Hydroxy-3-methoxycinnamaldehyde	4-Ethoxy-2-methoxyphenol	4-Hydroxy-2,3-dimethylbenzonitrile	3-Hydroxy-1-(4-hydroxy-3-methoxyphenyl)propane-1,2-dione
3-Hydroxy-5-methoxybenzaldehyde	5-(Hydroxymethyl)bicyclo[2.2.1]heptane-2,3-diol	4-Hydroxy-3-methoxy-5-methylbenzonitrile	4-[12-(4-Formyl-2-hydroxyphenoxy)dodecoxy]-3-hydroxybenzaldehyde
2-Ethoxy-3-methylphenol	2-Ethenoxy-3-fluorophenol	3-Chloro-4-hydroxy-5-methylbenzonitrile	4-(11-Bromoundecoxy)-3-hydroxybenzaldehyde
2-Methoxy-4-[(1E)-3-Methoxyprop-1-en-1-yl]phenol	2,4-Bis(chloroamino)phenol	1-(3,5-Dimethoxy-4-hydroxyphenyl)-1,2-ethanedithiol	4-(12-Bromododecoxy)-3-hydroxybenzaldehyde
4-Methoxy-3-(1-methylprop-2-enyloxy)benzaldehyde	2-(3-Ethoxy-4-hydroxyphenyl)acetaldehyde	1-[2-Hydroxy-5-(methoxymethyl)phenyl]ethanone	(E)-2,3-Bis(4-hydroxy-3-methoxyphenyl)prop-2-enal

3-[(E)-But-2-en-1-yl]-4-methoxybenzaldehyde	1-Ethoxy-2,4,5-trifluoro-3-(methoxymethyl)-6-methylbenzene	4-Hydroxy-3-methoxybenzaldehyde;propa-1,2-diol	(Z)-2,3-Bis(4-hydroxy-3-methoxyphenyl)prop-2-enal
(Z)-3-(4-Hydroxy-3-methoxyphenyl)prop-2-enal	2-Chloro-1-(4-hydroxy-3,5-dimethoxyphenyl)ethanone	4-Hydroxy-3-[(2-methylpropan-2-yl)oxy]benzaldehyde	Methyl 4-hydroxy-3-(methoxy-d3)benzoate
3,4-Dimethoxybenzaldehyde O-methyl-oxime	1-(5-Methoxy-2,4-dimethylphenyl)ethanone	3-Butan-2-yloxy-4-hydroxybenzaldehyde	3-Formyl-N-methylpyrrolidine-1-carboxamide
Dehydrozingerone	1-(2-Chloro-4-fluoro-5-isocyanatophenyl)-N-methoxymethanimine	3-(Butan-2-yloxy)-4-methoxybenzaldehyde	7-(4-Hydroxy-3-methoxyphenyl)-5-oxohept-6-enal
4-Hydroxy-3-methoxy-5-[(E)-prop-1-en-1-yl]benzaldehyde	4-Ethoxy-2-isocyanatophenol	2-Hydroxy-5-(hydroxymethyl)-3-methoxybenzaldehyde	3-Fluoro-4-hydroxyphthalaldehyde
1-(4-Hydroxy-3-methoxyphenyl)-3-(2-hydroxyphenyl)prop-2-en-1-one	2,3-Dioxopiperazine-1-carbaldehyde	4-Hydroxy-3-(hydroxymethyl)-5-methoxybenzaldehyde	5-Hydroxy-4-methoxy-2-sulfanylbzaldehyde
3,3'-Dimethoxy-4,4'-dihydroxychalcone	4-Hydrazinobenzaldehyde	1,2-Dihydroxy-3,5-diformylbenzene	3-Ethoxy-4-hydroxybenzamide
1-Amino-2,4(1H,3H)-pyrimidinedione	3-Methyl-4-hydroxyfuran-2-carbaldehyde	4-Hydroxy-3-methoxybenzaldehyde;4-hydroxy-3-methoxybenzoic acid	5-(Oxiran-2-yl)-1,6,7,7a-tetrahydro-2,1,3-benzoxadiazole
2,4-Dimethoxy-3-hydroxyacetophenone	3,4-Dihydroxybenzaldehyde;ethane	Vanillylthiol	3,4-Dimethoxybenzaldehyde;molecular iodine
2-Amino-1-[(Z)-ethylideneamino]-5-methylpyrrole-3,4-dicarbonitrile	5-Hydroxy-2,3-dihydro-1,4-benzodioxine-8-carbonitrile	(E)-1-(4-Hydroxy-3-methoxyphenyl)nonadec-10-ene-1,2-dione	3-Methoxy-5-methylidenecyclohexane-1-carbonitrile
1-(3,4-Dimethoxyphenyl)-3-(3-hydroxy-4-methoxyphenyl)-2-propene-1-one	Ethanone, 2-bromo-1-(4-hydroxy-3,5-dimethoxyphenyl)-	3-Butoxy-4-hydroxybenzaldehyde	2,3-Difluoro-4-hydrazinylbenzaldehyde
2-Propen-1-one, 3-(4-hydroxy-3-methoxyphenyl)-1-phenyl-	1-(Methylamino)-4-sulfanylpipridin-2-one	4-Amino-3,5-difluorobenzaldehyde	4,6-Dimethoxy-4H-pyrimidin-3-amine
(E)-3-(4-Hydroxy-3-methoxyphenyl)-1-(4-methoxyphenyl)prop-2-en-1-one	Methyl 4-hydroxy-2,3-dimethoxybenzoate	2-Methoxy-4-methylcyclohexa-1,3-dien-1-ol	Methyl 3-(1-chloroethylideneamino)-4-methylbenzoate
3'-Methoxy-4-fluoro-4'-hydroxychalcone	4-Amino-3-methoxybenzaldehyde	1-Amino-3,4-dimethyl-1,3-dihydroimidazol-2-one	4-Fluoro-3-methoxy-2-methylthiobenzaldehyde
3-Hydroxy-6-methyl-2(2H)-pyranone	3-Methoxy-4-prop-1-en-1-oxo-2-hydroxybenzaldehyde	2-Methoxy-4,5-dimethylaniline	4-Acetyl-1-ethylpiperazin-2-one
4-Allyl-2-ethoxyphenol	3-Ethoxy-4-hydroxy-5-methylbenzaldehyde	4-Amino-2-fluoro-3-methoxybenzoic acid	4-(4-Formyl-2-methoxyphenoxy)-2-methylidene-4-oxobutanoic acid
O-Geranylvaniillin	4-Hydroxy-3-methoxy-5-methylbenzoic acid methyl ester	Benzenamine, 4-(ethenylsulfonyl)-2-methoxy-5-methyl-	2-Methoxy-2,5-dihydropyridine-6-carbonitrile
(E)-4-(4-Hydroxy-3-methoxyphenyl)-4-oxo-2-butenic acid	2-(2-Isocianoethenyl)-4-methoxyphenol	(4-Formyl-2-hydroxyphenyl)formate	2-(2-Propoxyethoxy)ethyl 4-hydroxy-3-methoxybenzoate
2-Methoxy-3,5-dimethylphenol	1-Ethenyl-3-iodopyrimidine-2,4-dione	4-Hydroxy-3-methoxy-5-(trifluoromethyl)benzaldehyde	2,4-Dimethoxy-1-(nitrosomethyl)benzene
2,4-Xylenol, 6-methoxy-	4-[Chloro(ethoxy)methyl]-2-fluoroaniline	2,4-Dicyano-6-methoxyphenol	(4-Formyl-2-methoxyphenoxy)boronic acid
2-Ethoxy-4-(methoxymethyl)phenol	2-(3-Chloro-2-methoxyphenyl)acetaldehyde	4-Hydroxy-3-methoxybenzaldehyde;2-(oxiran-2-ylmethoxymethyl)oxirane	1-(4-Fluoro-2-hydroxy-5-methylphenyl)ethanone
4,5-Dichloro-2-methoxyaniline	N-Methyl-6-oxopyran-2-carboxamide	4-Chloro-2-(difluoromethoxy)aniline	4-(Diazenylmethyl)-2-methoxyphenol

5-Acetylthiophene-3-carbaldehyde	4-(Hydroxymethyl)-2,5-dimethoxyphenol	4-Hydroxy-3-iodo-5-methoxybenzonitrile	3-Diazenyl-4-methylbenzaldehyde
2-Methoxy-3-methylbenzaldehyde	2,3,4-Trimethoxy-6-methylaniline	3-Allyl-2-chloro-4-hydroxybenzonitrile	3-(1,1-Dihydroxyethoxy)-4-methoxybenzaldehyde
4-Methoxy-3-(2-methoxy-ethoxy)-benzaldehyde	Methyl 1,2-dihydroquinoxaline-6-carboxylate	4-Ethenylsulfonyl-2-methoxyaniline	2-Methoxy-4-(methoxymethyl)-1-methylbenzene
3-Methoxy-4-(2-methoxyethoxy)benzaldehyde	5-(4-Hydroxy-3-methoxyphenyl)-3-oxopent-4-enal	5-Fluoro-1-benzofuran-6-carbaldehyde	Ethane;4-hydroxy-5-methoxy-2-phenylbenzaldehyde
(5R)-5-Acetyloxolan-2-one	2-Methoxy-5-(methoxymethyl)phenol	7-Fluoro-benzofuran-4-carbaldehyde	2-Methoxy-5-methyl-3,6-dimethylenecyclohexa-1,4-diene-1,4-diol
(5S)-5-Acetyloxolan-2-one	3-Methoxy-4-methylthiobenzaldehyde	[(4-Chloro-3-methoxyphenyl)-chlorooxymethyl] hypochlorite	4-[2-(3-Fluorophenyl)ethoxy]-3-hydroxybenzaldehyde
3',4'-Dimethoxyphenylglyoxal	Methyl 4-(5-formyl-2-hydroxyphenoxy)butanoate	3-(2-Hydroxyethoxy)-4-methoxybenzaldehyde	3,5-Dimethyl-1-nitrosopyrimidine-2,4-dione
4-Hydroxy-3-(trifluoromethoxy)benzaldehyde	3-Hydroxythiopyran-4-one	4-Amino-1,2,4-triazin-3-one	1-Acetyl-2,4-dimethylpyrrole-3-carbaldehyde
2-(Difluoromethoxy)-4-methylaniline	1-(4-Hydroxy-3-methoxy-5-methylphenyl)ethanone	(1E,6E)-1,7-Bis(4-hydroxy-3-methoxyphenyl)hepta-1,6-diene-3,5-dione;4-hydroxy-3-methoxybenzaldehyde	(5-Chloro-4-methoxythiophen-3-yl) formate
4-Hydroxy-3-(trifluoromethyl)benzaldehyde	2-Ethynoxy-4-methylphenol	4-Hydroxy-3-methoxybenzaldehyde;2-methoxy-4-prop-2-enylphenol	5-Methylenecyclopenta-1,3-diene-1,2-dicarbaldehyde
3-Bromo-4-hydroxy-5-methoxybenzonitrile	1-Ethoxy-3-methoxy-5-methylbenzene	Methyl 4-methyl-3-prop-2-enoxybenzoate	3-Methanethiocylopentane-1-carbaldehyde
2-Bromo-5-ethoxy-4-hydroxybenzonitrile	4-Amino-3,5-dimethoxybenzonitrile	2,3,5-Trifluoro-4-hydroxybenzamide	3-Methyl-2-sulfanylideneimidazole-1-carbaldehyde
(E)-3-Hydroxy-4-methoxychalcone	5-Hydroxy-4-methoxypyridine-2-carbaldehyde	4-Hydroxy-3-methylbenzamide	4-(Hydroxymethoxy)-3-methoxybenzaldehyde
Benzaldehyde, 3-(chloromethyl)-4-hydroxy-	(5-Formyl-2-hydroxyphenyl) hydrogen carbonate	Acetoxy vanillin	2-(3-Ethenyl-2-oxoimidazolidin-1-yl)acetaldehyde
4-(Difluoromethyl)-3-methoxybenzaldehyde	2-Chloro-6-methylcyclohexene-1,3-dicarbaldehyde	4-Amino-3-ethylbenzaldehyde	2-Bromo-4-(diazenylmethyl)-6-ethoxyphenol
5-Ethyl-2-hydroxy-3-methoxybenzaldehyde	3-(4-Hydroxy-3-methoxyphenyl)prop-2-enoyl chloride	4-Amino-3-methoxybenzaldehyde	4-Hydroxy-3-(nitrosomethoxy)benzaldehyde
2-Hydroxy-5-methoxy-4-methylbenzaldehyde	1-(4-Amino-3-methoxy-5-methylphenyl)ethanone	4-Ethyl-2,3-dioxopiperazine-1-carbaldehyde	(3-Hydroxy-4-methoxyphenyl)-oxomethanesulfinate
2-Hydroxy-3,5-dimethoxy-4-methylbenzaldehyde	1-Ethylsulfinyl-3-methoxybenzene	2-Chloro-1-(4-hydroxy-2,5-dimethoxyphenyl)ethanone	(3-(113C)Methoxyphenyl)methanol
2-Hydroxy-5-methoxy-3-methylbenzaldehyde	5-Chloro-3,4-dimethyl-2-(trifluoromethoxy)aniline	1-Hydroxy-6-oxopyridine-2-carboxamide	3-Hydroxy-2-methoxy-6-prop-1-enylbenzaldehyde
2-Hydroxy-3-methoxy-5-methylbenzaldehyde	6-(4-Hydroxy-3-methoxyphenyl)-2,4-dioxohex-5-enal	Cyclopentene-1,3-dicarbaldehyde	2,4-Dimethoxy-1-methylenecyclohexane
(E)-3-(3-Fluorophenyl)-1-(4-hydroxy-3-methoxyphenyl)prop-2-en-1-one	2,4-Dimethoxy-1-methylcyclohexane	2-Methoxy-3,5,6-trimethylbenzene-1,4-diol	5-Methoxy-4-oxocyclohex-2-ene-1-carbaldehyde
3-Ethoxy-4-pentyloxybenzaldehyde	2-Ethoxy-3,4,5,6-tetrafluoroaniline	(3-Fluorosulfonyl-4-hydroxyphenyl) thiohypofluorite	2,4-Diethoxybenzene-1,3-diol
(E)-3-(3-Hydroxy-4-methoxyphenyl)-1-(4-	3-Hydroxyoxane-2,6-dione	3-Acetylimidazolidine-1-carbaldehyde	(5-Formyl-2-hydroxyphenyl) methyl carbonate

methoxyphenyl)prop-2-en-1-one			
4-Amino-2-methylbenzonitrile	1-Methyl-3-bromouracil	5-Acetyl-2-hydroxybenzonitrile	3-Acetyl-4-hydroxybenzamide
3-Ethoxy-4-hydroxy-5-iodobenzoic acid	Copper;4-hydroxy-3-methoxybenzoic acid	3-Hydroxy-4-methoxy-2-propylbenzaldehyde	4-But-2-en-2-yloxy-3-ethoxybenzaldehyde
(E)-1-(4-Hydroxy-3-methoxyphenyl)-3-(4-methylphenyl)prop-2-en-1-one	4-Hydroxy-5-oxocyclohexa-1,3-diene-1-carboxylic acid	1-Amino-1,3-diazinan-2-one	4-But-2-en-2-yloxy-3-methoxybenzaldehyde
3-Methoxy-benzaldehyde oxime	3-Hydroxyfuran-2,5-dione	5,6-Dioxocyclohexa-1,3-diene-1-carbonitrile	6-(4-Formyl-2-methoxyphenoxy)-2-methylidene-6-oxohexanoic acid
2,4-Diacetyl-5,6-dimethylphenol	4,5-Dihydroxy-6-oxopyran-2-carboxylic acid	Benzene, 1-isocyanato-3-(methylsulfinyl)-	Methyl 3-(4-hydroxy-3-methoxyphenyl)-3-oxopropanoate
3-Hydroxy-1-(4-hydroxy-3-methoxyphenyl)dodecan-1-one	2-Chloro-1-methoxy-4-(methoxymethyl)benzene	6-Amino-4-methyl-3-methoxy-1,2,4-triazin-5-one	3-Oxocyclopentane-1-carboxamide
6-Hydroxy-5-methoxy-1-benzothiophen-3-one	2,3-Dihydroxy-6-hydroxymethylpyran-4-one	Ethyl 2-(5-formyl-2-hydroxyphenoxy)propanoate	3-Ethoxy-4-pent-2-en-3-yloxybenzaldehyde
4-Hydroxy-3-(4-methylphenoxy)benzaldehyde	3-Hydroxy-2-oxo-2H-pyran-6-carboxylic acid	Ethyl 2-(5-formyl-2-hydroxyphenoxy)acetate	2,3-Bis(4-hydroxy-3-methoxyphenyl)prop-2-enal
3-(3-Hydroxy-4-methoxyphenyl)-propionaldehyde	Benzaldehyde, 3-(2-fluoroethoxy)-4-methoxy-	4-N-Ethoxy-4-N-ethyl-2-methoxybenzene-1,4-diamine	2,3,5-Trideuterio-4-ethyl-6-methoxyphenol
3-Hydroxy-4-phenoxybenzaldehyde	2,3-Difluoro-4-hydrazinylbenzonitrile	4-Methyl-1-benzofuran-7-ol	2-(Diazenylmethyl)-4-methoxyphenol
3-Hydroxy-4-methoxycinnamaldehyde	4-Chloro-3-ethoxybenzaldehyde	4-Amino-3-methoxybenzenethiol	Vanilloylacetic acid
2,4-Diacetyl-5-methylphenol	4-Methoxy-3-methyl-pyridine-2-carbaldehyde	4-Acetyl-1-methyl-3H-azepin-2-one	2-[4-(Fluoromethoxy)phenyl]acetaldehyde
Ascopyrone M	1-(3-Ethoxy-4-hydroxyphenyl)propan-2-one	4-(Dimethoxymethyl)-2-ethoxyphenol	3-Methoxy-4-methylcyclohepta-1,3,5-triene-1-carbaldehyde
1-Hydroxy-6-methoxypyridine-2-thione	1-(Isocyanomethyl)-2,4-dimethoxybenzene	5-(Methoxymethyl)-2,4-dimethylbenzaldehyde	1-(1-Acetyl-4-iminopiperidin-3-yl)ethanone
2-Cyclohexen-1-one, 2-methyl-5-(2-methyloxiranyl)-	(2,4,5-Trifluoro-3-methoxyphenyl)methanol	(5-Formyl-2-hydroxyphenyl)formate	3-Methoxy-4-methylidenecyclohexane-1-carbonitrile
6-Amino-4-methylnicotinonitrile	3-Fluoro-4-hydroxy-5-methoxybenzoic acid	4-Hydroxy-3-methoxybenzaldehyde	(4-Hydroxy-3-methoxyphenyl)-oxomethanesulfinate
4-Amino-3,5-dimethylbenzaldehyde	5-(Hydroxymethyl)-3-methoxybenzene-1,2-diol	1-(Dichloromethyl)-2,4-dimethoxybenzene	3-(4-Hydroxybenzyl)-4-hydroxy-5-methoxybenzaldehyde
1-(3-Amino-4-hydroxy-5-methoxyphenyl)ethanone	2,6-Dimethoxy-N-methylpyridin-3-amine	4-Methylthiophene-2,3-dicarbaldehyde	5-(Methoxymethyl)-3-methylthiophene-2-carbaldehyde
4-(3-Hydroxypropoxy)-3-methoxybenzaldehyde	1-(2-Amino-4-hydroxy-3-methoxyphenyl)ethanone	4-Amino-1,2,4-triazine-5(4H)-one	1-(2-Sulfanylidene-3H-thiophen-5-yl)ethanone
6-Acetyl-3-methyl-2H-pyran-2-one	(2-Fluoro-3-methoxy-5-methylphenyl)methanol	2-(Aminooxymethyl)-5-hydroxypyran-4-one	3-Ethoxy-5-fluorobenzyl alcohol
3-Methoxy-4-methylsalicylaldehyde	4-Cyano-2-methoxybenzene-1-sulfonyl chloride	2-[(Aminooxy)methyl]-5-hydroxy-3-methyl-4(3H)-pyrimidinone	3-Ethoxy-5-fluorobenzaldehyde
2,3-Dimethoxy-4-methylbenzaldehyde	Methyl 4-hydrazinyl-3-methoxybenzoate	1,3-Thiazolidine-2,5-dithione	1-(4-Hydroxy-3-methoxy-2-methylphenyl)propan-1-one
1-(2-Fluoro-3,4-dimethoxyphenyl)ethanone	2-Thiophenecarbonitrile, 4-hydrazinyl-	3,4-Dipentoxybenzaldehyde	3-Ethoxy-1-(4-hydroxy-3-methoxy-phenyl)-propan-1-one

1-(3,5-Dimethoxy-4-hydroxyphenyl)-1-propanol	1-Hydroxy-4-methylbicyclo[2.2.2]octan-2-one	4-Hydroxy-2,5-dimethylbenzene-1,3-dicarbaldehyde	3-Hydroxy-2-methoxy-5-methylbenzaldehyde
4-Iodo-2-methoxyphenol	2-[(3S)-3-Amino-2-oxopyrrolidin-1-yl]acetaldehyde	3-Ethoxy-6-hydroxy-2,4,5-trimethylbenzaldehyde	4-Hydroxy-3-[(4-hydroxy-3-methylphenyl)methyl]-5-methoxybenzaldehyde
1-(3-Methoxy-4-methylphenyl)ethanone	4-Amino-2,5-dimethylbenzaldehyde	4-Amino-5-methoxy-2-methylbenzenesulfonyl chloride	4-[5-(4-Formyl-2-hydroxyphenoxy)pentoxy]-3-hydroxybenzaldehyde
2,4-Diacetyl-3-methylphenol	4-Amino-2-fluorobenzaldehyde	3-Fluoro-4-hydroxy-5-methoxybenzonitrile	4-(5-Bromopentoxy)-3-hydroxybenzaldehyde
4-Ethoxy-2-fluorobenzaldehyde	(2R)-2-Aminocyclohexan-1-one	1-Amino-1,3,5-triazin-2-one	3-Hydroxy-4-methoxy-5-(trifluoromethyl)benzaldehyde
(3S)-3-Hydroxyoxan-2-one	2-Methoxy-4-(oxiran-2-yl)benzonitrile	4-(Diethylamino)-2-methoxyphenol	4-Hydroxy-3-[2-[(3R)-3-hydroxy-3-methylpentoxy]ethoxy]benzaldehyde
5-Acetyl-2,N-dihydroxybenzamide	4-Methoxy-5-methyl-indan-1-one	3-Sulfanylidene-4-thia-1-azabicyclo[3.2.0]heptan-7-one	4-Hydroxy-3-[2-(3-hydroxy-3-methylpentoxy)ethoxy]benzaldehyde
3,5-Difluoro-4-hydroxybenzaldehyde	4-Chloro-5-hydroxy-2,3-dihydroinden-1-one	4-Methyl-2,3-dioxopiperazine-1-carbaldehyde	3-Butan-2-yl-4-hydroxy-5-methoxybenzaldehyde
4-Hydroxy-3-phenoxybenzaldehyde	4-Pyridinecarbonitrile, 3-fluoro-1,2-dihydro-2-oxo-	4-Amino-3,5-dimethoxybenzaldehyde	2-[(2-Formyl-5-hydroxy-4-methoxyphenyl)methyl]-4-hydroxy-5-methoxybenzaldehyde
2-Methyl-3,5-dimethoxybenzaldehyde	Methyl 5,6-dihydroxypicolinate	5-Methoxy-4-oxocyclohexa-1,5-diene-1-carbaldehyde	1-(4-Hydroxy-3-propan-2-yloxyphenyl)ethanone
2-Methoxy-4-(trifluoromethyl)phenol	4-[(E)-But-2-enyl]-2-methoxyphenol	Pycnarrhine	1-[4-Hydroxy-3-(2-methylpropoxy)phenyl]ethanone
1-(4-Hydroxy-3-methoxyphenyl)-butane-1,3-dione	2,4-Difluoro-3-formylbenzamide	2-(Chloroacetyl)-5-hydroxypyridin-4(1H)-one	3-Hydroxy-4-(3-phosphanylidynprop-1-ynoxy)benzaldehyde
5-Hydroxy-4-methylpicolinaldehyde	4-(1,1-Dimethoxyethyl)-2-methoxyphenol	4-N-Ethoxy-2-methoxybenzene-1,4-diamine	4-(Fluoromethoxy)-3-hydroxybenzaldehyde
4-Hydroxy-2,3,5-trimethoxybenzaldehyde	3-Hydroxy-4-methoxy-2,3-dihydropyran-6-one	7-Methyl-5-nitrosoquinolin-8-ol	(4-Formyl-2-methoxyphenyl) hydrogen sulfate; methanol
4-Bromo-2-(cyclopropylmethoxy)phenol	3-(Trifluoromethoxy)benzaldehyde oxime	6-Methyl-5-nitrosoquinolin-8-ol	1-(3-Ethoxy-4-hydroxyphenyl)-2,2-dimethylpropan-1-one
(2,4-Dimethoxyphenyl)hydrazine	3,4-Bis(trideuteriomethoxy)benzaldehyde	4-Chloro-2-(difluoromethoxy)-3-fluoroaniline	1-(3-Ethoxy-4-hydroxyphenyl)-3-methylbutan-1-one
5-Thioxo-5H-[1,2]dithiole-3-carboxylic acid amide	Methyl 5-hydroxy-6-methoxypicolinate	4-Methoxy-3-(2-methylbutoxy)benzaldehyde	1-(3-Ethoxy-4-hydroxyphenyl)pentan-1-one
1,3-Dimethyl-6-(oxiran-2-yl)pyrimidine-2,4-dione	5-Fluoro-2,4-dimethoxyphenol	4-(2-Ethylhexoxy)-3-hydroxybenzaldehyde	1-(3-Ethoxy-4-hydroxyphenyl)-2-methylpropan-1-one
3-Hydroxy-4-(3-methyl-2-butenyloxy)benzaldehyde	4-Fluoro-2,5-dimethoxyphenol	6-Hydroxy-2,3-dimethylbenzaldehyde	1-(3-Ethoxy-4-hydroxyphenyl)-2-methylbutan-1-one
6-Hydroxy-2-cyclohexen-1-one	(4-Formyl-2-hydroxyphenyl) 3-(4-hydroxy-3-methoxyphenyl)prop-2-enoate	3-(Dichloromethoxy)-4-hydroxybenzaldehyde	1-(3-Hydroxy-4-methoxyphenyl)prop-2-yn-1-one

4,6-Diacetyl-o-cresol	1-Amino-6-methyl-4-sulfanylidene-pyrimidin-2-one	3,5-Diethoxy-4-hydroxybenzoic acid	4-Hydroxy-3-[2-[2-[2-[2-[2-[2-(2,2,2-trifluoroethoxy)ethoxy]ethoxy]ethoxy]ethoxy]ethoxy]ethoxy]benzaldehyde
3-Methoxy-5-methyl-5,6,7,8-tetrahydronaphthalen-2-ol	2-(5-Acetyl-2-hydroxy-3-methoxyphenyl)acetaldehyde	4-(Methoxymethyl)thiophene-2-carbaldehyde	1-(4-Hydroxy-3-methoxyphenyl)pentane-1,4-dione
1-Ethyl-3-hydroxypyridin-2(1H)-one	3-Isothiocyanato-2-methylbenzaldehyde	4,5-Difluoro-2-methoxyaniline	4-Hydroxy-3-methoxybenzoic acid;hydrate
1,3-Dihydroxy-1H-1,3-diazepine-2,4(3H,7H)-dione	1-(3-Fluoro-4-hydroxy-5-prop-2-enylphenyl)ethanone	3-Chloro-4-ethoxy-5-fluorobenzaldehyde	(4-Formyl-2-methoxyphenyl)hypoiodite
Phenol, 4-[(dimethylamino)methyl]-2-methoxy-	4-Oxopyridine-1-carboxamide	3,5-Difluoro-2-methoxyaniline	2-Formyl-4,5-dimethoxycinnamaldehyde
Phenol, 4-[(dimethylamino)methyl]-2-methoxy-6-methyl-	2-(Methylamino)-3H-isoindol-1-one	4-Hydroxy-3-sulfanylbzaldehyde	2-Methoxy-6-methyl-4-propionyl-phenol
4-Amino-3-methylbenzaldehyde	2,4-Diisocyanato-1-methylcyclohexene	4-Acetamido-3-methoxybenzoic acid	1,1'-Biphenyl;4-hydroxy-3-methoxybenzaldehyde
2-(3,4-Dimethoxyphenyl)oxirane	4-Methoxy-3-(4-methoxy-3-methylbut-1-en-1-yl)benzaldehyde	2-Amino-4-cyanopyrazole	4-Hydroxy-3-(2-oxoethoxy)benzaldehyde
6-Chloro-3-ethoxy-2-fluoro-benzaldehyde	(2-Methoxycyclohexyl) formate	2-Ethoxy-4-nitrosophenol	(E)-3-(2,6-Dihydroxycyclohexa-2,4-dien-1-yl)-1-(3-hydroxy-4-methoxyphenyl)prop-2-en-1-one
2-Cyclohexen-1-one, 2-methyl-5-(2-methyloxiranyl)-, (5R)-	2-(Hydrazinylmethyl)cyclohexa-2,5-diene-1,4-dione	2,1-Benzisothiazole-6-carboxaldehyde	(2R)-1-(3-Hydroxy-4-methoxyphenyl)-2-methylbutan-1-one
3,4-Dimethoxy-2,6-dimethylbenzaldehyde	4-Hydroxy-2-sulfanylidene-1,3-thiazole-3-carbaldehyde	2,3,5,6-Tetrafluoro-4-hydroxybenzaldehyde	3-Ethoxy-4-hydroxybenzaldehyde;2-methyl-1-phenylpropan-2-ol
3-Hydroxy-6-(methoxymethyl)-4H-pyran-4-one	1-(4-Hydroxy-3-methoxy-5-prop-1-enylphenyl)ethanone	8-Hydroxyquinoline-5-carbonitrile	3-Hydroxy-4-methylperoxybenzaldehyde
3-Fluoro-2,4-dimethoxyaniline	3-Methoxy-4-(sulfanylmethyl)benzaldehyde	2-Methoxy-5-methylcyclohexa-2,5-diene-1,4-dimine	4-Prop-2-enoyloxybutyl 4-hydroxy-3-methoxybenzoate
3-Acetyl-5-chloro-4-hydroxybenzoic acid	1-[2,4-Dihydroxy-5-(methoxymethyl)phenyl]ethanone	6-(Hydroxymethyl)-4-methylpyran-2-one	1-(3-Hydroxy-4-methoxyphenyl)but-2-en-1-one
4-Ethynyl-3-methoxybenzaldehyde	2-(3-Methyl-2-oxoimidazolidin-1-yl)acetaldehyde	1-[3-(Difluoromethoxy)-4-methoxyphenyl]ethanone	4-Hydroxy-3-propoxybenzoic acid
2,3,5-Trifluoro-4,6-dimethoxyaniline	1-(4-Hydroxy-3-methoxyphenyl)-5-(3-hydroxyprop-1-en-1-yl)pentan-1-one	1-(Chloromethyl)-4-methoxy-2,3,5,6-tetramethylbenzene	Deuterio-(2-deuterio-4-deuteriooxy-3-methoxyphenyl)methanone
3-Hydroxy-6-methyloxan-2-one	(4-Formyl-2-methoxyphenyl)ethaneperoxoate	1-(Chloromethyl)-4-methoxy-2,3,5-trimethylbenzene	3-Hydroxy-4-methoxy-5-(2-methylbutyl)benzaldehyde
3-Methyl-2-thioxo-2,3,6,7-tetrahydro-1,3-thiazepine-4(5H)-one	(3-Methoxycyclohexyl) formate	3-Amino-1,3-thiazinane-2,4-dione	4-Deuteriooxy-3-methoxybenzaldehyde
Methyl 5-cyano-2-hydroxybenzoate	3-Methoxy-4-oxocyclohex-2-ene-1-carbaldehyde	5-Hydroxy-6-methoxy-3H-1-benzofuran-2-one	(5-Formyl-2-hydroxyphenyl)carbamate
Methyl 4-(hydroxymethyl)-3-methoxybenzoate	Deuterio-(2-methoxyphenyl)methanone	4-Hydroxy-3-methoxybenzenesulfonyl chloride	2-(4-Formyl-2-hydroxyphenoxy)acetic acid
4-Bromo-2-methoxy-3-methylphenol	(2R)-2,3-Dimethylpyrrolidine-1-carboxamide	4-(3,4-Dimethoxyphenyl)-4-oxobutanal	4-Hydroxy-3-methoxybenzoic acid;hydrochloride
2-Methoxyterephthalaldehyde	3-Acetyl-4-iminocyclohexa-2,5-dien-1-one	2-(1-Fluoroethoxy)phenol	4-Ethenoxy-3-methoxybenzaldehyde

2,4-Difluoro-3-formylbenzonitrile	5-Oxo-1,2-dihydropyrrole-3-carboxamide	2-Amino-5-methoxy-2,4,6-cycloheptatrien-1-one	4-Hydroxy-3-methoxybenzaldehyde;2-methylpropan-1-ol
Ethanone, 1-(4-ethoxy-3-methoxyphenyl)-	2,2-Dihydroxy-3-(4-hydroxy-3-methoxyphenyl)-3-oxopropanal	3,4,5-Trichloro-2-ethoxyphenol	2-Hydroxy-3-methoxy-5-[(Z)-1-oxobut-2-en-2-yl]benzaldehyde
3-Bromo-5-methoxybenzaldehyde	3-Fluoro-4-hydroxy-5-propan-2-yloxybenzaldehyde	3,4-Dichloro-2-ethoxyphenol	(2E,4E)-1-(3-Hydroxy-4-methoxyphenyl)-5-(4-methoxyphenyl)penta-2,4-dien-1-one
3-Fluoro-5-methoxybenzonitrile	3,4-Bis(pent-2-en-3-yloxy)benzaldehyde	2-Amino-4-methoxypyrimidine-5-carbaldehyde	3,4-Bis[(2-methylpropan-2-yl)oxy]benzaldehyde
Methyl 4-formyl-3-methoxybenzoate	5-Acetyl-4-methylthiophene-3-carbonitrile	7-Oxabicyclo[4.2.0]octa-1(6),2,4-triene-4-carbonitrile	2-Hydroxy-3-methoxy-5-[(3E)-penta-1,3-dien-3-yl]benzaldehyde
4-Methoxy-6-methyloxan-2-one	(5-Formyl-2-methoxyphenyl)sulfite	4-Hydroxy-3-methoxybenzaldehyde;2-methylpropanoyl 2-methylpropanoate	4-Hydroxy-3-methoxy-2-sulfanylbzaldehyde
2-Formyl-4-(hydroxyimino)-2,5-cyclohexadien-1-one	3,4,5-Trifluoro-2-methoxyphenol	3,4-Dichloro-2-methoxyaniline	Benzoylvanillin
5-Formyl-2-hydroxybenzamide	Pyrrole-1,3-dicarbaldehyde	3,4,5-Trichloro-2-methoxyaniline	Sulfovanillin
4-Chloro-3-methoxybenzonitrile	1-(3-Methoxy-4-prop-1-enoxyphenyl)ethanone	5-Amino-2-ethylsulfanyl-1H-pyrimidin-6-one	Deuteroveratrumaldehyd
3-Methoxy-4,4'-dihydroxychalcone	3-Ethoxy-4-hydroxybenzaldehyde;2-methylpropanoic acid	5-Amino-2-methylsulfanyl-1H-pyrimidin-6-one	1-(4-Hydroxy-3-iodo-5-methoxyphenyl)propane-1,2-dione
Deuterio-(2,3,5,6-tetradeuterio-4-methoxyphenyl)methanone	2-Methoxy-6-methyl-4-prop-1-enylphenol	2-(Bromomethyl)-3-methoxybenzonitrile	4-Hydroxy-3-[2-(4-hydroxy-4-methoxycyclohexa-1,5-dien-1-yl)ethenyl]-5-methoxybenzaldehyde
3,5-Difluoro-2,4-dimethoxyaniline	Methyl 2-fluoro-3-formylbenzoate	2-Formyl-6-methoxybenzonitrile	Phosphovanilline
2,6-Dimethoxy-4-nitrophenol	2-Methoxy-4-(sulfanylmethyl)phenol	4-Hydroxycyclohexa-2,4-diene-1-thione	(4-Hydroxy-3-methoxyphenyl)-trimethylsilylmethanone
1-(4-(Benzyloxy)-3-hydroxyphenyl)ethanone	4-Hydroxy-3-methoxy-5-(3-methylbut-2-enyl)benzaldehyde	5-Hydroxy-1,3-thiazole-2,4-dicarbonitrile	4-Hydroxy-3-(trichloromethoxy)benzaldehyde
Deuterio-(2,3,5,6-tetradeuterio-4-hydroxyphenyl)methanone	3-Chloro-2,4-dimethoxybenzamide	2-Methoxy-3-sulfanylbzaldehyde	6-Acetyl-2-hydroxy-3-methoxybenzeneselenonic acid
2-Fluoro-3-methoxybenzonitrile	3-Methoxy-4-pent-1-en-3-yloxybenzaldehyde	Benzaldehyde;4-hydroxy-3-methoxybenzaldehyde	4-Hydroxy-3-methyl-5-phenylmethoxybenzaldehyde
2-Methoxy-4-(3-methyloxiranyl)phenol	3-Methoxy-4-oxocyclohexa-1,5-diene-1-carbaldehyde	2-Butoxy-4-nitrophenol	Iodoisovanillin
Benzenemethanethiol, 2,4-dimethoxy-	4-Bromo-2-fluoro-5-methoxybenzaldehyde	2,5-Dimethoxy-4-nitrophenol	Bromoisovanillin
4(3H)-Quinazolinone, 2-methyl-3-(methylamino)-	(1S,5R)-1,3-Dimethyl-3-azabicyclo[3.2.1]octane-2,4-dione	2-Methoxy-6-methyl-4-nitrophenol	2-(3-Hydroxy-4-methoxyphenyl)-2-oxoacetaldehyde
Bromcreosol	7-Amino-2-methylcycloheptane-1,4-dione	2-Ethoxy-4-(2-methylprop-1-enyl)phenol	1-(3,4-Dimethoxyphenyl)-2-(3-hydroxy-4-methoxyphenyl)ethanone
3-Amino-2,4-dimethoxy-6-methylpyridine	1-[2-Hydroxy-5-(methoxymethyl)-3-methylphenyl]ethanone	4-(Chloromethyl)-1,3-dimethoxy-2,5-dimethylbenzene	1-(3,4-Dimethoxyphenyl)-2-(4-hydroxy-3-methoxyphenyl)ethanone
6-Hydroxy-2,3-dihydro-1H-indolizin-5-one	2-Fluoro-4-hydroxy-3-phenylmethoxybenzaldehyde	4-Imino-3-methoxycyclohexa-2,5-dien-1-one	Methyl 3-(4-formyl-2-methoxyphenoxy)prop-2-enoate
3,5-Difluoro-4-hydroxybenzonitrile	3-Fluoro-4-hydroxy-5-phenylmethoxybenzaldehyde	1-Acetyl-4-methoxycarbonyl-imidazole	Geranylvainillin

4-Hydroxy-3-methoxybenzaldehyde-d3	2,3,6-Trideuterio-4,5-dimethoxybenzaldehyde	Acetic acid; 4-hydroxy-3-methoxybenzaldehyde	Geranylacetovanillone
3-Hydroxy-4-methoxy-5-methylbenzaldehyde	3-Methoxy-4-(trideuteriomethoxy)benzaldehyde	Methyl 3-ethoxy-4-methylbenzoate	Prenylacetovanillone
5-Fluoro-2,4-dimethoxyaniline	2,3,6-Trideuterio-4,5-bis(trideuteriomethoxy)benzaldehyde	3-Amino-4-ethoxybenzamide	(E)-1,7-Bis(4-hydroxy-3-methoxyphenyl)hept-3-ene-1,6-dione
3-Fluoro-5-methoxybenzaldehyde	1-Chloro-4-(chloromethyl)-2-methoxybenzene	5-Chloro-2,4-dimethoxybenzenediazonium	1-(4-Hydroxy-3-methoxyphenyl)heptadecan-1-one
3-(Methoxymethyl)benzotriazole	2,6-Dideuterio-4-hydroxy-3,5-bis(trideuteriomethyl)benzotriazole	4-Amino-3-methoxy-N-methylbenzamide	1-(4-Hydroxy-3-methoxyphenyl)-4-methylpentan-1-one
2-Chloro-3-ethoxy-6-fluorobenzaldehyde	5-Bromo-4-hydroxy-3-methoxy-2-methylbenzaldehyde	4-Methoxypyridine-2-carbothialdehyde	1-(3-Hydroxy-4-methoxyphenyl)-4-methylpentan-1-one
3,5-Dichloro-2,4-dimethoxy-6-methylphenol	1-(Ethenyloxy)-3-methoxybenzene	1,3-Dimethylpiperidine-2,6-dione	1-(4-Hydroxy-3-methoxyphenyl)nonan-1-one
5-Acetyl-2-aminobenzonitrile	4-[(Chloroamino)methyl]-2-methoxy-5-methylphenol	5-Chloro-3-fluoro-5-methoxycyclohexa-1,3-diene-1-carbaldehyde	1-(4-Hydroxy-3-methoxyphenyl)icosan-1-one
Benzaldehyde, 2-hydroxy-3-methoxy-6-methyl-	Methyl 4-ethyl-3-methoxybenzoate	4-Chloro-N-ethyl-2-methoxyaniline	1,6-Bis(4-hydroxy-3-methoxyphenyl)hexane-1,6-dione
1-(4-Hydroxy-3-methoxyphenyl)-2-(4-methoxyphenyl)ethanone	3-Deuteriooxy-4-methylbenzaldehyde	2-(4-Chloro-3-methoxyphenyl)acetonitrile	3-Ethynyl-4-hydroxy-5-methoxybenzaldehyde
1-(4-Hydroxy-3-methoxyphenyl)-5-phenylpentan-1-one	Deuterio-(4-hydroxyphenyl)methanone	2-Ethoxy-3,4-dimethylphenol	3-Hydroxy-1-(3-hydroxy-4-methoxyphenyl)propan-1-one
2,3,5-Trimethyl-4-hydroxybenzaldehyde	1-(2,4,5-Trifluoro-3-methoxy-6-methylphenyl)ethanone	3,5-Dichloro-2,4-dihydroxybenzaldehyde	3-Methoxy-4-prop-2-enylperoxybenzaldehyde
1-Isopropenyl-2,4-dimethoxybenzene	Benzaldehyde, 5-methoxy-2,4-dimethyl-	4-Hydroxy-3-methoxyphthalaldehyde	4-Hydroxy-3-methoxybenzaldehyde;sulfane
(4-Chloro-3-methoxyphenyl)methanol	[3,4-Bis(trideuteriomethoxy)phenyl]-deuteriomethanone	2,4-Diisocyanatophenol	2-(3,4-Dimethoxyphenyl)-4-hydroxybenzaldehyde
4-Amino-3-bromobenzaldehyde	2,4-Difluoro-5-methoxybenzaldehyde	1-Formyl-4-methyl-3-oxopiperazine	3-Ethoxy-4-hydroxybenzaldehyde;4-hydroxybenzaldehyde;oxirane
2,3,5-Trimethoxy-4-methylbenzaldehyde	3-Chloro-5-ethoxy-2-methylbenzotriazole	2-Ethoxy-3,6-dimethylphenol	4-Hydroxy-3-methoxybenzaldehyde;potassium
4-Hydroxy-3-methoxycyclohexane-1-carbaldehyde	4-Methoxy-5-methylpicolinaldehyde	3,5-Dimethoxy-4-hydroxyphenyl glyoxal	4-Ethoxy-2-ethyl-3-hydroxybenzaldehyde
2,5-Difluoro-4-hydrazinylbenzotriazole	4-Methoxy-D3-benzaldehyde	4-Ethylsulfinyl-2-methoxyphenol	1-[4-Hydroxy-3-(2-methylprop-2-enoxy)phenyl]ethanone
4-Hydroxymethyl-2,5-dimethylphenol	1-Chloro-2-iodo-3-methoxy-5-(methoxymethyl)benzene	4-Ethylsulfonyl-2-methoxyphenol	3-Hydroxy-4-[2-[2-(2-methoxyethoxy)ethoxy]ethoxy]benzaldehyde
3-Acetoxy-6-hydroxy-2,4,5-trimethylbenzyl chloride	1-[(3S,4S)-4-Azido-3-hydroxycyclohexyl]ethanone	4-Chloro-2-fluoro-6-hydroxybenzaldehyde	1,1-Diethoxyethane;3-hydroxy-4-methoxybenzaldehyde;propane-1,2-diol
5-Hydroxy-2-iodo-4-methoxybenzaldehyde	4-Chloro-2-fluoro-3-methoxybenzaldehyde	4-Hydroxy-3-methoxyphenylpropanal	1-(4-Hydroxy-3-methoxyphenyl)-3-(3-hydroxyphenyl)propan-1-one
4-Hydroxy-3-methylbenzotriazole	2-Fluoro-5-hydroxy-3-methoxybenzaldehyde	1-(4-Hydroxy-2,3-dimethoxypyrrrol-1-yl)ethanone	4-Hydroxy-3-methylperoxybenzaldehyde
5-Methoxy-3-pyridinecarboxaldehyde	2,4-Dimethoxy-5-methylbenzoyl chloride	5-Carbamoyl-4-chloro-2-hydroxybenzoyl chloride	4-Hydroxy-5-methoxy-2-(trifluoromethyl)benzaldehyde

2-Fluoro-6-methoxy-4-methylaniline	3-Hydroxy-4-methoxy-2-methylbenzaldehyde	1-Amino-4-sulfanylpipridin-2-one	5-Ethoxy-6-hydroxyinden-1-one
Phenol, 2,4-dimethoxy-3-methyl-	4-Hydroxy-2-methoxy-3-methylbenzaldehyde	4-Formylisobenzofuran	4-Hydroxy-3-methyl-5-prop-2-ynoxybenzaldehyde
Benzaldehyde, 2,4-dihydroxy-3,5-dimethoxy-	4-Hydroxybenzaldehyde-2,3,5,6-d4	4-Ethoxy-3-propoxybenzaldehyde	4-Hydroxy-3-[2-[2-(2-prop-2-ynoxyethoxy)ethoxy]ethoxy]benzaldehyde
4'-Hydroxy-3'-methoxy-4-phenylbutyrophenone	1-(3-Bromo-4-hydroxy-5-trifluoromethylphenyl)ethanone	4-Methoxy-2-nitrosophenol	2-(4-Hydroxy-3-methoxy-5-methylphenyl)-2-oxoacetaldehyde
4-(Methylamino)benzaldehyde	6-Methoxy-3,4-dimethylcyclohexa-1,5-dien-1-ol	2-Chloro-5-ethoxy-4-(methylamino)benzenediazonium	(4-Formyl-2-hydroxyphenyl)propanoate
(3E)-2-Chloro-3-(hydroxymethylidene)cyclohexene-1-carbaldehyde	2-Chloro-4-methylcyclopenta-1,3-diene-1,3-dicarbaldehyde	5-Cyano-2-formamidothiazole	(4-Formyl-2-hydroxyphenyl)2,2-dimethylpropanoate
1-(4-Hydroxy-3-methoxyphenyl)-3-phenylpropan-1-one	Methyl 2-methyl-5-[(2R)-oxiran-2-yl]benzoate	4-Dichlorophosphoryl-1,2-dimethoxybenzene	4-Hydroxy-3-methoxybenzaldehyde;(1E,4E,8E)-2,6,9-tetramethylcycloundeca-1,4,8-triene
2-Iodo-4,5-dimethoxybenzaldehyde	3-Methoxy-4,5-dimethylbenzaldehyde	4-Hydroxyfuran-2,3-dicarbaldehyde	Deuterio-[2-deuterio-3-(deuteriomethoxy)-4-hydroxyphenyl]methanone
3-(Benzyloxy)-4-hydroxybenzaldehyde	1-(3-Methyl-1,4,5,6-tetrahydrocyclopenta[c]pyrrol-6-yl)ethanone	5-Methoxybenzene-1,2,4-triol	4-Hydroxy-3-methoxybenzaldehyde;hydrate
2-Hydroxy-5,5-dimethyl-2-cyclohexen-1-one	5-Methyl-4-oxo-2,3-dihydrothiopyran-6-carbaldehyde	[2,2-Dimethylpropanoyloxy-(4-formyl-2-hydroxyphenoxy)methyl] 2,2-dimethylpropanoate	4-Hydroxy-3-iodo-5-methoxybenzaldehyde;4-hydroxy-3-methoxybenzaldehyde
(3-Methoxy-5-methylphenyl)methanol	4-Oxo-2,3-dihydrothiopyran-6-carbaldehyde	(E)-1-(3-Hydroxy-4-methoxyphenyl)-3-(2,4,6-trihydroxycyclohexa-2,4-dien-1-yl)prop-2-en-1-one	4-Hydroxy-3-methoxybenzaldehyde;phenol
2-Amino-4-methyl-3,5-pyridinedicarbonitrile	3-Methoxycyclohexane-1-carbaldehyde	4-Ethylsulfonyl-2-methoxy-5-methylbenzenediazonium	Cyclopropanecarboxylic acid;4-hydroxy-3-methoxybenzaldehyde
2,5-Dichloro-4-hydroxybenzene-1,3-dicarbonitrile	3-Fluoro-5-hydroxy-4-methylbenzaldehyde	2-Methoxy-5-methyl-4-methylsulfonylaniline	Cyclobutanecarboxylic acid;4-hydroxy-3-methoxybenzaldehyde
2-Hydroxy-5-methoxy-3,4,6-trimethylbenzaldehyde	3-(Ethenylideneamino)-5-methylbenzonitrile	4-(Ethoxymethyl)-2,6-dimethylBenzenamine	4-Hydroxy-3-methoxybenzaldehyde;3-methylbutanoic acid
8-Hydroxy-2,2-dimethyl-2H-chromene-6-carbaldehyde	4-Hydroxy-3-((2-(trimethylsilyl)ethoxy)methoxy)benzaldehyde	3-(Ethylideneamino)benzonitrile	1-(3-Hydroxy-4-methoxyphenyl)-2-methylbut-3-en-1-one
Pyrazolo[1,5-a]pyridine-6-carbaldehyde	3-Fluoro-4-hydroxy-5-methylbenzaldehyde	4-Hydroxy-3-methoxy-5-[methoxy(phenyl)phosphoryl]benzaldehyde	4-[(E)-3-(4-Hydroxy-3-methoxyphenyl)prop-2-enyl]benzaldehyde
1-Methoxy-3-(methoxymethyl)benzene	3-Fluoro-4-hydroxy-5-methylbenzonitrile	4-(Fluoromethoxy)-3-methoxybenzaldehyde	3-(4-Hydroxy-3-methoxyphenyl)-3-oxopropanal
2-Pyridinecarbonitrile, 4-methoxy-3,5-dimethyl-	2-Fluoro-4-hydroxy-3-methylbenzaldehyde	3-Hydroxy-4-[2-[2-(2-hydroxyethoxy)ethoxy]ethoxy]benzaldehyde	3-Decoxy-4-hydroxybenzaldehyde
(6S)-6-Methoxycyclohexen-1-ol	2-Ethoxy-4-prop-1-en-2-ylphenol	4-Hydroxy-3-methoxybenzaldehyde;oxaldehydic acid	2-[(1R)-Cyclohex-2-en-1-yl]-3-hydroxy-4-methoxybenzaldehyde

3,4-Dimethoxybenzaldehyde;pentane-2,4-dione	(2E)-3,7-Dimethylocta-2,6-dien-1-ol;4-hydroxy-3-methoxybenzoic acid	(3,4-Dimethoxyphenyl)methyliden eoxidanium	
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In some instances, the bacterial colonization-disrupting agent alters properties of the surface of the bacterial cell by, for example, targeting the biogenesis of the bacterial cell envelope (e.g., biogenesis of the membrane(s) or other structures that surround and protect the bacterial cytoplasm, e.g., cell wall, inner membrane, and outer membrane). The cell envelope represents the outermost layers of the bacterial cell and, in general, functions in the protection of the cell, communication with the environment, maintenance of cellular shape, stability, and rigidity of the cell, as well as allowing appropriate metabolism, growth, division, and colonization of the bacteria. Accordingly, in some instances, the bacterial colonization-disrupting agent targets genes or proteins required for the biosynthesis of molecules important for the integrity of the cell envelope, including the biosynthesis carbohydrate-containing macromolecules such as lipopolysaccharides (LPSs), peptidoglycan, lipoteichoic acids, teichoic acids, capsule polysaccharides, and lipoarabinomannan.

For example, LPS represents a major component of the outer leaflet of the outer membrane, and is composed of three domains: lipid A, core oligosaccharide (OS) and O-specific polysaccharide (or O antigen). As described in Examples 2 and 3, LPS biosynthesis (e.g., core oligosaccharide synthesis, e.g., L-Heptoses synthesis), is one exemplary cell envelope biogenesis pathway that can be targeted to disrupt bacterial colonization of the insect gut (e.g., disrupt colonization of the endosymbiont *Burkholderia* in the gut of *Riptortus pedestris* (Example 2) or disrupt colonization of the endosymbiont *Candidatus Pantoea carbekii* in the gut of *Halyomorpha halys* (Example 3)).

Accordingly, in some instances, the bacterial colonization-disrupting agent is an LPS synthesis inhibitor. In some instances, the LPS synthesis inhibitor is an inhibitor of core oligosaccharide synthesis in the bacteria. For example, the LPS synthesis inhibitor may inhibit an enzyme involved in core oligosaccharide synthesis in the bacteria, such as WaaA, WaaC, WaaF, or WaaG, or an enzyme. In some instances, the LPS synthesis inhibitor inhibits an enzyme having at least 40%, 50%, 60%, 70%, 80%, 90%, 95%, 98%, 99%, or 100% sequence identity to a polypeptide having the amino acid sequence of WaaA, WaaC, WaaF, or WaaG. In some instances, the LPS synthesis inhibitor inhibits expression of a gene involved in core oligosaccharide synthesis in the bacteria, such as *waaA*, *waaC*, *waaF*, or *waaG*. In some instances, the LPS synthesis inhibitor inhibits expression of a gene having at least 40%, 50%, 60%, 70%, 80%, 90%, 95%, 98%, 99%, or 100% sequence identity to a polynucleotide having the nucleotide sequence of *waaA*, *waaC*, *waaF*, or *waaG*. Exemplary LPS synthesis inhibitors are provided in Table 3.

Table 3. LPS synthesis inhibitors

ADP-2-fluoroheptose
2- aryl-5-methyl-4-(5-aryl-furan-2-yl-methylene)-2,4-dihydro-pyrazol-3-ones
ADP-2-deoxy-2-fluoro-heptose

fullerene hexa-adducts bearing 12 copies of peripheral sugars displaying the mannopyranose core structure of bacterial l,d-heptoside

Table 4: Analogs of levulinic acid

2-Acetolactate	2-Diazenylacetic acid	(2R,3S)-3-Methyl-2-oxiranecarboxylic acid	1-(Chloromethyl)cyclopropane-1-carboxylic acid
3-Hydroxyphosphonoyl-2-oxopropanoic acid	3-Methoxy-3-oxoprop-1-ene-2-sulfonic acid	(S)-5-Oxoxolane-3-carboxylic acid	3-Methoxycarbonylpent-2-enoic acid
Acetoacetic acid	2-Thiazoleacetic acid	2-[(2R)-Oxiran-2-yl]acetic acid	3-Ethoxy-2-methylprop-2-enoic acid
3-Mercaptopyruvic acid	5-Oxoprolinate	3-Methylglycidic acid	2,3,4-Trifluorohepta-2,4-dienoic acid
3-Pyridineacetic acid	Ethoxyformic acid anion	2-Sulfamoylacetic Acid	1-Fluoropropan-2-yl hydrogen carbonate
b-Sulfanyl pyruvate	4-Sulfanylidenebutanoic acid	(E)-3-Methyl-4-oxobut-2-enoic acid	Methyl 3-methylsulfonylbut-2-enoate
gamma-Aminobutyric acid	(2-Oxoazetidin-1-yl)methylphosphonic acid	5-Hydroxy-pent-2-ynoic acid	3-Hydroperoxy-2,2-dimethylpropanoic acid
4-Hydroxy-2-oxopentanoic acid	1,3-Dioxolan-4-ylmethyl acetate	2,2,3-Trimethylbut-3-enoic Acid	1-Carboxyoxethyl acetate
Benzoate	3-Hydroxy-4-methylisoxazole-5-carboxylic Acid	Acetic acid, 2-hydroxy-, carboxymethyl ester	5-Bromopent-2-enoic acid
Benzoic acid	2-(2-Aminoacetyl)oxypropanoic acid	(2R,3R)-3-Methoxycarbonyloxirane-2-carboxylic acid	4-Cyano-2-methylidenebutanoic acid
Aminooxyacetic acid	2-Cyclopropylpropanoic acid	2-Chloropyrimidine-5-carboxylic Acid	2-Chloro-3-iminobutanoic acid
Acetylenedicarboxylic acid	3,4,5-Trifluorothiophene-2-carboxylic acid	3-Nitroacrylic acid ethyl ester	3-Chloropropyl hydrogen carbonate
2-Amino-4-oxopentanoic acid	1-Methylsulfonylethyl formate	(3-Methyloxetan-3-yl)methyl nitrate	3-Formylcyclobutane-1-carboxylic acid
3-Hydroxybutyric acid	2,5-Bis(sulfanyl)pentanoic acid	Propanoic acid, 2,3,3,3-tetrafluoro-2-methoxy-	3-Fluoropropyl hydrogen carbonate
3-Chlorobenzoic acid	2,2-Difluoroethyl hydrogen carbonate	4-Nitrobutan-2-one	3-Bromo-4-bromooxy-4-oxobutanoic acid
2,5-Dioxopentanoic acid	2-(Oxiran-2-yl)-2-oxoacetic acid	4-Nitro-2-butanol	(1R,2R)-2-Ethylcyclopropylacetic acid
2-Phosphoglycolic Acid	Methylphosphinoacetic acid	2,3-Dideuteriobutanedioic acid	2,2,3,3-Tetrachlorobutanoic acid
Phosphonoacetic acid	Methylphosphinopropionic acid	O-(Methoxymethyl)glycolic acid	3-Formamido-2-oxopropanoic acid
3-(Methylthio)propionic acid	1-Fluorocyclopentanecarboxylic acid	5-Azidopentanoic Acid	Cyclopropanecarboxylic acid, 2-methylene-, (1R)-
N,N-Dimethylglycine	2-[Ethenyl(fluoro)amino]acetic acid	2-Butyric acid, 4-methoxy-	2-Chloro-5-oxopentanoic acid
But-2-enedioic acid	(Z)-3-Chloro-2-iodoprop-2-enoic acid	Hexa-4,5-dienoic Acid	3-Hydroxyprop-1-en-2-yl hydrogen carbonate
Itaconic acid	3,4,4-Trichloro-2-methylbutanoic acid	(1S,2R)-2-Methoxycarbonylcyclobutane-1-carboxylic acid	5-Bromo-2,2-difluoropentenoic acid
2-Amino-5-oxopentanoic acid	2-Chloro-5-methoxy-5-oxopentanoic acid	(S)-2-((Methylsulfonyl)oxy)propanoic acid	(2-Hydroxypropylamino) hydrogen sulfate
2-Methylbut-2-enedioic acid	2-Chloro-2-(2-oxoazetidin-1-yl)acetic acid	(2S)-2-Hydroxy-4-oxopentanoic acid	5-Bromo-4-methoxypent-3-enoic acid
Nicotinate	2-Thionitrosopropanoic acid	(2R)-2-(Methoxycarbonylamino)propanoic acid	4-Bromo-2-fluorobut-2-enoic acid
Nicotinic acid	4-Phosphanylbutanoic acid	3,3,4,4,4-Pentafluorobutanoic Acid	1,2,2-Trifluorocyclobutane-1-carboxylic acid
Pyrazine-2-carboxylic acid	Methoxymethyl hydrogen carbonate	3,3,4,4,4-Pentafluoro-2-methylidenebutanoic acid	(2R)-2-(Difluoroamino)-2-fluoropropanoic acid

Succinic acid	4-Phosphorosobutanoic acid	(1S,5R,6S)-2-Oxobicyclo[3.1.0]hexane-6-carboxylic acid	5-Hydroxy-3-methylpent-2-enoic acid
Succinic semialdehyde	Hydroxy-(2-oxoniocarbonylcyclopropyl)oxidanum	Benzoic-4-D1 acid	2-Methoxy-2-sulfanylacetic acid
3,4-Dihydro-2H-pyrrole-2-carboxylic acid	1-Phosphanylaziridine-2-carboxylic acid	2,3-Dimethyl-4-nitropyridine	3-Isocyanato-2-methylprop-2-enoic acid
3-Nitropropionic acid	(3S)-4-Amino-3-(hydroxyamino)-4-oxobutanoic acid	Trifluoracetylalanine	2-Bromo-3-(oxiran-2-yl)propanoic acid
N-(Dithiocarboxy)sarcosine	(1S,5R,6S)-2-Oxobicyclo[3.1.0]hexane-6-carboxylic acid	3,3-Difluorobutanoic Acid	[Ethenyl(dimethyl)silyl]formic acid
Phosphonomycin	2-(2,2-Dichloro-1-methylcyclopropyl)-2-oxoacetic acid	(E)-3-[(2R,3S)-3-Methyloxiran-2-yl]prop-2-enoic acid	2-Chloro-3-nitrosopropanoic acid
Phosphoglycolhydroxamic Acid	3,4-Bis(sulfanyl)butanoic acid	alpha-(Methoxycarbonylamino)-acrylic acid	4-Aminosulfanylbutanoic acid
Hexa-2,4-dienoic acid	3-Methoxypentanoic acid	5-Bromolaevulinic acid	2-Methyl-2-trimethylsilyloxypropanoic acid
Trigonelline	(Z)-4-Methoxy-4-oxidobut-3-enoate	Pyrocarbonic acid ethyl ester	4-Chloropent-2-enoic acid
N-Methylnicotinic acid	4-Methoxy-4-oxobutanoate	2,3-Difluoroisonicotinic acid	3-Imino-2-methylbutanoic acid
Isonicotinic acid	2-(Phosphanylmethylideneamino)acetic acid	(R)-(+)-2-Methylsuccinamic acid	4,6-Dichlorohex-2-enoic acid
Asparagine	2-(Methylsulfonyl)ethyl acetate	S-Methyl-L-cysteine S,S-dioxide	2,2-Difluoro-3-hydroxypentanoic acid
Mercaptosuccinic acid	[(3S)-Oxolan-3-yl] hydrogen carbonate	4,4-Dimethoxybutanoic Acid	5-Sulfanylpent-2-enoic acid
4-Chlorobenzoic acid	Carboxymethyl-trimethylphosphonium	(2Z,4S)-4-Acetoxy-2-pentenoic acid	2-(4,5-Dihydro-3H-pyrazol-3-yl)acetic acid
3-Mercaptopropionic acid	3-Chloro-2-methyl-4-nitropyridine	(4R)-4-Hydroxyhexanoic acid	2-Chloro-2-nitrosoacetic acid
Dichloroacetic acid	(E)-5-Methyl-4-oxohept-2-enoic acid	3,3,3-Trifluoro-2-methylpropanoic acid	Carbonic acid 1-methylenebutyl ester
N-Acetylalanine	Pyridin-3-yl hydrogen carbonate	alpha-Nitroethyl acetate	Trimethylsilylalanine
Cyclohexanecarboxylic acid	2-(Aziridin-1-yl)acetic acid	3-Sulfolene-3-carboxylic acid	Trichlorisovaleriansaure
M-Toluic acid	2-(Methoxycarbonyl)butanoic acid	5-Iodopentanoic acid	2-(2-Hydroxyethylamino)sulfanyl acetic acid
4-Methylbenzoic acid	2-[(2,2-Dichloroacetyl)-methylamino]acetic acid	3-(Aminoxy)propanoic acid	2-Methyl-4,6-dioxohex-2-enoic acid
3-Chloropropionic acid	(Ethylsulfonyl)acetic acid	Methylbetain	Thiocyanoalanine
Valeric acid	2-Hydroxypropyl dihydrogen phosphite	Alaninebetaine	5-Methoxy-5-oxopent-3-enoic acid
2,5-Hexanedione	4-Hydroxy-3-methylhexanoic acid	2-Isocyanato-4-methylpentanoic acid	7-Oxohept-3-enoic acid
3-Iodopropionic acid	Bicyclo[4.1.0]hepta-1,3,5-triene-7-carboxylic acid	3-Oxocyclopent-1-enecarboxylic acid	1,3-Difluoropropyl hydrogen carbonate
2,3-Dimercaptosuccinic acid	(Z)-3-Chlorohex-2-enoic acid	5-Amino-4-oxo(313C)pentanoic acid	Bicyclo[3.1.0]hexane-2-carboxylic acid
Heptafluorobutyric acid	4,5-Dimethylpyridine-3-carboxylic acid	(1S,5S,6S)-6-Fluoro-4-oxobicyclo[3.1.0]hex-2-ene-6-carboxylic acid	5-Oxopent-2-enoic acid
Methyl difluoronitroacetate	2-Fluoroethyl hydrogen carbonate	(2S,3R)-3-Methyloxirane-2-carboxylic acid	2-Hydroxy-3-(oxiran-2-yl)propanoic acid
2-Fluorobenzoic acid	4-Methylperoxy-4-oxobutanoic acid	(1S)-2-Methylidenecyclopropane-1-carboxylic acid	2-Amino-2-(1-methoxycyclopropyl)acetic acid
3-Fluorobenzoic acid	2-Bromo-3-chloropropanoic acid	2-Bromo-2-fluorocyclopropanecarboxylic acid	5-Chlorohex-4-enoic acid
4-Fluorobenzoic acid	alpha-Keto-4-methoxybutyric acid	(S)-4-Methoxy-2-methyl-4-oxobutanoic acid	3-Cyclopropyl-2-nitrosopropanoic acid

3-Fluoropropanoic acid	Methyl(prop-2-enoyl)carbamic acid	5-Bromo-5-hexenoic acid	3H-Azepine-5-carboxylic acid
Hydantoic acid	2-(Dichloroamino)-2-methylpropanoic acid	Methoxyimino-acetic acid	(3-Hydroxy-2-oxopropyl) hydrogen carbonate
3-Furoic acid	3-[Acetyl(chloro)amino]propanoic acid	5,6-Difluoropyridine-3-carboxylic Acid	But-1-enyl hydrogen carbonate
Methylsuccinic acid	2-(Chloroamino)pentanoic acid	4,4,4-Trifluoro-2-sulfanylbutanoic acid	2-Ethyl-4-oxopent-2-enoic acid
4-Fluorobutanoic Acid	2-(Chloroamino)butanedioic acid	2,2-Difluoro-2-sulfamoylacetic acid	2,3-Dichlorobut-2-enoic acid
4-Hydroxybutanoic acid	3-(Chloroamino)propanoic acid	O-(3-Carboxyphenyl)hydroxylamine	2-(Chloromethylidene)-4,4,4-trifluorobutanoic acid
Isovaleric acid	2-Ethyliminopropanoic acid	3-Carboxybenzenediazonium	2-Propenoic acid, 3-(acetylthio)-
N-Acetylglycine	(E)-4-Amino-2,3-dichloro-4-oxobut-2-enoic acid	4-(18F)Fluoranylbenzoic acid	4,4,4-Trichloro-2-methylbut-2-enoic acid
4-Amino-4-oxobut-2-enoic acid	3-Methyl-4-chloro-isoxazole-5-yl acetic acid	4-Fluoro-4-methylcyclohexa-1,5-diene-1-carboxylic acid	3-Chloro-4-methoxy-4-oxobut-2-enoic acid
2,3-Dichloropropionic acid	2-Hydroxybicyclo[3.1.0]hexane-6-carboxylic acid	(E)-4-Methoxy-3-methyl-4-oxobut-2-enoic acid	(2S)-5-Amino-2-(methylideneamino)-5-oxopentanoic acid
3-Bromopropionic acid	3-Amino-2-chloroisonicotinic acid	2,2-Difluoro-5-hexenoic acid	1,2,3-Trithiane-5-carboxylic acid
Dimethylmalonic acid	2-Aminooxy-3-methylbut-2-enoic acid	2-Mercaptobutyric acid	5-Hydroxyhex-3-enoic acid
2,2-Dimethylsuccinic acid	2-(Propan-2-ylideneamino)acetic acid	Methacryloxyacetic acid	2-(Ethoxyimino)propanoic acid
Acetylcysteine	2,3-Dihydro-1,4-oxathiine-5-carboxylic acid	2-(Methyldisulfanyl)acetic acid	4-Amino-4-sulfanylidenebutanoic acid
2-Chlorofumaric acid	2-Acetyloxybut-3-enoic acid	4-Mercapto-4-methylpentanoic acid	4-Chloro-4,4-difluorobut-2-enoic acid
4-Chlorobutyric acid	1-Iodopropan-2-yl hydrogen carbonate	(2R)-2-(Oxiran-2-ylmethyl)butanoic acid	2-Carboxyethenyl-ethyl-dimethylazanium
Ethoxyacetic acid	(1-Fluoro-2-methylpropan-2-yl) hydrogen carbonate	(S,S)-(+)-Cyclopropane-1,2-dicarboxylic Acid Monomethyl Ester	1,1,2,2-Tetrachloroethyl hydrogen carbonate
Succinamic acid	4-(Chloromethyl)thiophene-2-carboxylic acid	(Methylsulfinyl)acetic acid	4-Methoxy-2-methyl-4-oxobut-2-enoic acid
4-Methylpentanoic acid	4-Oxo-2-oxabicyclo[3.1.0]hexane-6-carboxylic acid	Benzoic acid-ring-UL-14C	2-(Carbamoyldisulfanyl)acetic acid
Hadacidin	4-Hydroxy-2-thiabicyclo[3.1.0]hexane-1-carboxylic acid	Glycine, N-(carboxymethyl)-N-hydroxy-	(2R)-1-Phosphanylazetidene-2-carboxylic acid
1,2-Diacetylene	1-(Carboxymethyl)cyclopropane carboxylic acid	2-(Dimethylamino)propanoic acid	2-Diazenylpropanoic acid
4,4-Dimethylpentanoic acid	3,3-Dimethyl-2,4-dioxopentanoic acid	Acetic acid, [(2-oxopropyl)thio]-	4-Chloro-3-methylthiophene-2-carboxylic acid
5-Chlorovaleric acid	Propanoic acid, 3-(chlorosulfonyl)-	Pentaoxycarbonsaure	Tetrathiane-5-carboxylic acid
(Acetylthio)acetic acid	1,3-Dioxol-2-ylmethyl hydrogen carbonate	3-Bromo-4-methoxy-4-oxobutanoic acid	5-Fluorocyclohexa-1,3-diene-1-carboxylic acid
trans-Hex-2-enoic acid	2-(Chloroamino)-3-sulfanylpropanoic acid	N-Formylsarcosine	(Z)-Pent-3-enoate
Cycloheptanecarboxylic acid	4-(Chloroamino)butanoic acid	4-Oxazolecarboxylic acid, 2,3-dihydro-2-oxo-	2-Methylsulfanylbut-2-enedioic acid
3,3-Dichloroacrylic acid	Dioxane-3-carboxylic acid	2-Butynoic acid, 4,4-difluoro-	4-Cyanato-4-oxobut-2-enoic acid
2-Fluoro-3-methylbutanoic acid	1-Chloropropyl hydrogen carbonate	4-Azidobutyric acid	Amino(2-methoxyethyl)carbamic acid
Cyclopropanecarboxylic acid	2-Methyl-3,3-bis(sulfanyl)butanoic acid	5-Fluorothiophene-2-carboxylic acid	4,4-Dichloro-2-methylidenebutanoic acid
2-Thiopheneacetic acid	3,3-Bis(sulfanyl)butanoic acid	2-Nitroethyl Acetate	2-[(1-Chloropropan-2-yl)oxy]propanoic acid

3-Chlorobutyric acid	2-(1-Chloroethyl)-3-oxo-1H-pyrazole-5-carboxylic acid	6-(Trideuteriomethyl)pyridine-3-carboxylic acid	4-Chlorooxy-4-oxobut-2-enoic acid
5-Bromovaleric acid	Diethylamino hydrogen carbonate	2,5-Difluoropyridine-3-carboxylic Acid	Phosphorosomethyl dihydrogen phosphate
Trichloroacrylic acid	2-(2-Carbamoyloxiran-2-yl)acetic acid	2-[(2-Chloroacetyl)(methyl)amino]acetic acid	2-Methoxypropan-2-yl hydrogen carbonate
Peroxyacetyl nitrate	Bicyclo[2.2.0]hexa-1(4),2,5-triene-2-carboxylic acid	2-(1-Methylcyclobutyl)acetic Acid	(2S)-3-Chlorosulfonyl-2-methylpropanoic acid
cis-3-Chloroacrylic acid	3-Chloro-2,2-difluoropropanoic acid	(+)-(1S,2R,4R)-Bicyclo[2.2.1]heptane-2-carboxylic acid	2,4-Dimethylpenta-2,4-dienoic acid
Isotrigonelline	3-Chlorocyclopentane-1-carboxylic acid	2-[(1R,2R,4S)-2-Bicyclo[2.2.1]heptanyl]acetic acid	Methylsulfanylmethyl hydrogen carbonate
1-Methyl-4-carboxypyridinium	3-Fluorocyclopentanecarboxylic acid	3-Aci-Nitropropionic acid	4-Amino-2,3-dimethyl-4-oxobut-2-enoic acid
Methyl nitroacetate	1-Chlorocyclobutane-1-carboxylic acid	2,2-Difluoropent-4-enoic Acid	Carboxy-(carboxymethyl)-dimethylazanium
2,2-Dichlorobutanoic acid	3,4-Dichlorocyclopentane-1-carboxylic acid	4-Methyl-isothiazole-5-carboxylic acid	2,3,4,4,4-Pentafluorobut-2-enoic acid
2-Fluoropropanedioic Acid	4-Methoxy-4-methylhexanoic acid	4-Hydroxy-2-oxobutanoic acid	2,3,4-Trifluorobut-2-enoic acid
4-Acetylbutyric acid	2-Chloro-3-fluoropropanoic acid	[(R)-[(3R)-3-Carboxyoxaziridin-3-yl]-hydroxymethyl]sulfonium	2-Propenoic acid, 3-(2-propynyloxy)-
Chloropon	2,2,4-Trichloro-3-oxobutanoic acid	3,4-Dihydro-2H-pyrrole-2-carboxylate	4-Bromo-3-chloro-2,2,3-trifluorobutanoic acid
Benzoic acid- α - ^{13}C	2-(Chloroamino)isobutyric acid	2,4-Pentadienoate	(5,6-Dihydro-1,4-oxathiin-3-yl)acetic acid
1-Methyl-4-nitro-1H-pyrazole	Carboxypropionate	Hydrogen maleate	(2S)-2-[Acetyl(hydroxy)amino]propenoic acid
2-Chlorobutyric acid	(E)-5-Chloropent-2-enoic acid	(2S,3S)-3-Hydroxy-2-methylbutanoic acid	2-Chloro-3-methoxyprop-2-enoic acid
Hex-3-enoic acid	(E)-6-Oxohept-2-enoic acid	3-(Carboxyamino)propanoic acid	2-Nitroso-2-(1,3-thiazol-4-yl)acetic acid
4-Methylcyclohexanecarboxylic acid	3-Isothiazoleacetic acid, 4-chloro-	(R)-1-Pyrroline-5-carboxylic acid	4-Fluorooxybutanoic acid
4-Methylcyclohex-3-ene-1-carboxylic acid	3-Bromo-4-oxocyclopentane-1-carboxylic acid	Glutaramate	2-(Nitrosomethyl)cyclopropane-1-carboxylic acid
3-Cyclohexene-1-carboxylic acid	3-Methoxycarbonylbut-3-enoate	2-Amino-3-methyl-4-oxopentanoic acid	(3-Chloro-2-methylbutan-2-yl) hydrogen carbonate
Pent-3-enoic acid	2-(Isocyanatomethyl)prop-2-enoic acid	trans-4-Fluorocyclohexanecarboxylic Acid	3-Fluoroacrylic acid
4-Methyl-5-thiazoleacetic acid	(Z)-3-Cyclopropylbut-2-enoic acid	2-Thioxo-1,3-dithiole-4-carboxylic acid	Difluoroalanine
Cyclohexylacetic acid	Cyanomethoxy-oxido-oxophosphonium	3-Thioxo-3H-1,2-dithiol-5-carboxylic acid	Butanoic acid, 4-amino-2-bromo-4-oxo-, (2R)-
Acetic acid, 2-acetamidooxy-	Prop-2-enyl carbonate	3-Methyl-4,5-dihydroisoxazole-5-carboxylic acid	2-(Sulfonylhydrazinylidene)acetic acid
Acetylpyruvic acid	Bicyclo[2.2.1]hept-4-ene-2-carboxylic acid	(1R,2S)-2-Methoxycarbonylcyclobutanecarboxylic acid	2-Methyl-5-oxopent-4-enoic acid
4-Pentynoic acid	2-(2-Bicyclo[2.2.1]hept-5-enyl)acetic acid	4-Nitrobutanenitrile	2-[Methanethiyl(methyl)amino]acetic acid
4,4-Dimethylpent-2-enoic acid	4-Oxo-2-sulfanylpentanoic acid	2-(Methylaminooxy)acetic acid	4-Oxohex-2-enoic acid
Dimethylpropiothetin	Tetrahydro-2H-thiopyran-4-carboxylic acid	2-(Ethylaminooxy)acetic acid	2,2-Difluoro-3-(fluoroamino)-3-oxopropanoic acid

3-(Dimethyl-lambda~4~-Sulfanyl)propanoic Acid	2,2-Difluoro-3-oxopropanoic acid	N-Methylene glycine	2,3,4-Trichlorobut-2-enoic acid
3-Methoxybutanoic acid	Oxepine-3-carboxylic acid	2-Chloro-2,3,3,3-tetrafluoropropanoic acid	2,4-Pentadienoic acid, 4-methyl-, (E)-
Nitraminoacetic acid	1,2-Difluorocyclopropane-1-carboxylic acid	(1R,5S,6R)-2-Oxobicyclo[3.1.0]hexane-6-carboxylic acid	Iodoalanine
2,3-Dichloroisobutyric acid	Hydroxy-oxo-(sulfinatoamino)oxymethane	(4R)-4,5-Dihydro-1,3-thiazole-4-carboxylic acid	1-(Aziridin-1-yl)cyclopropane-1-carboxylic acid
4-Mercaptobutyric acid	Cyclopropyl hydrogen carbonate	(1S,2R)-2-Ethenylcyclopropane-1-carboxylic acid	(2R)-2-Chloro-2-(dichloroamino)propanoic acid
N-Nitrososarcosine	5-Oxohex-2-enoic acid	(1S,4S)-Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid	2-Deuteriobut-2-enedioic acid
5-Hydroxypentanoic acid	Pyrimidin-5-yl hydrogen carbonate	5-Amino-3,3-dideuterio-4-oxopentanoic acid	3-Fluoro-2-(trifluoromethyl)prop-2-enoic acid
Butanedioic acid, 2,2-dichloro-	2-Methylcyclobutene-1-carboxylic acid	(Propionyloxy)acetic acid	2-(5-Methyl-1,3-thiazol-4-yl)acetic acid
3-Methylenecyclobutanecarboxylic acid	4-Methylphosphanylbutanoic acid	4-Mercapto-4-oxobutanoic acid	3-Aminosulfanylpropanoic acid
Chlorosuccinic acid	2-(Oxiran-2-yl)ethanesulfonic acid	2-Hydroxy-5-oxovaleric acid	[Carboxy(chloro)methyl]-trimethylazanium
4-Chlorobut-2-enoic acid	5-Chloro-6-oxoheptanoic acid	2-Carboxypropyl-hydroxy-oxophosphonium	4-Diazobutanoic acid
4,4-Dichlorobut-2-enoic acid	2-Methylidene-4-oxopentanoic acid	4-Oxopentanoic acid hydrochloride	2-Chloro-2,3-difluorobutanedioic acid
Cysteine, N-formyl-, L-	3-Chloro-2-oxobutanoic acid	Nicotinic-d4 Acid	Ethoxymethyl hydrogen carbonate
3-Chloroisoxazole-5-carboxylic acid	3-(Aminomethoxy)propanoic acid	2,5-Dihydro-furan-2-carboxylic acid	Methylsulfonylmethyl hydrogen carbonate
(2R-cis)-(3-Methyloxiranyl)phosphonic acid	2-(3,6-Dihydro-2H-pyran-6-yl)acetic acid	Maleic acid-2,3-d2	1,1-Difluoroethyl hydrogen carbonate
2-Butenedioic acid (2Z)-, 1-(2-hydroxyethyl) ester	2-(Methylideneamino)oxyacetic acid	(E)-(1,4-13C2)But-2-enedioic acid	3-Bromopropyl hydrogen carbonate
4-Pyridineacetic acid	2-Butylphosphanylideneacetic acid	Fumaric acid-2,3-d2	3-Ethyliminopropanoic acid
3-Methyl-2H-azirine-2-carboxylic acid	1,3-Dioxolan-4-yl hydrogen carbonate	Maleic acid-2,3-13C2	4-Bromo-3-methoxybut-2-enoic acid
4-Cyanobutanoic acid	Oxan-4-yl hydrogen carbonate	1,1,1,3,3,4,4,6,6,6-Decadeuteriohexane-2,5-dione	3-Phosphanylprop-2-enoic acid
2,3-Dichlorobut-2-enedioic acid	Cyclohex-2-en-1-yl hydrogen carbonate	3-Oxabicyclo[3.1.0]hexane-6-carboxylic acid	2-Acetamidosulfanylacetic acid
N-Ethyl-N-(3-carboxypropyl)nitrosamine	1-Methoxypropan-2-yl hydrogen carbonate	(1R,5S,6s)-3-Oxabicyclo[3.1.0]hexane-6-carboxylic acid	2,3-Dihydropyridine-5-carboxylic acid
Ethyl hydrogen maleate	3-Hydroperoxy-2-methylpropanoic acid	2-Deuteriobenzoic acid	4-Ethoxybut-2-enoic acid
4,4-Dihydroxybut-2-enoic Acid	6-Oxo-tetrahydro-pyran-2-carboxylic acid	2,6-Dideuteriobenzoic acid	3-(Hydroxymethylsulfanyl)propanoic acid
Nitroacetate	Acetamido hydrogen carbonate	2-Cyclopropyl-2-oxoacetic acid	3-Sulfanyl-2-sulfanylidenebutanoic acid
N-Methyl-N-(3-carboxypropyl)nitrosamine	Oxiran-2-yl hydrogen carbonate	Isonicotinic-d4 acid	N-Acetyl-3-chloro-L-alanine
Thiocyanatoacetic acid	Dimethylphosphorylimino(sulfanylidene)methane	Pentanoic acid, 2-ethyl-4-oxo-	4-Sulfanylbut-2-enoic acid
4-Fluorobut-2-enoic acid	2-[(1R,2S,4S)-2-Bicyclo[2.2.1]heptanyl]acetic acid	4-Chlorocyclohex-3-ene-1-carboxylic acid	4-Hydroxypentan-2-yl hydrogen carbonate
3,4-Dichloroisothiazole-5-carboxylic acid	3-Fluorobicyclo[1.1.1]pentane-1-carboxylic acid	(Z)-4-Methyl-2-pentenoic acid	4-Chlorobutan-2-yl hydrogen carbonate

2-Chloro-2-methylbutyric acid	Propanoic acid, 2-[(1-methylethyl)nitrosoamino]-	Isovaleric acid-1-13C	2-Formyloxyethylphosphonic acid
3-(Dichloroamino)-3-methylbutanoic acid	3-Methoxypropane-1-sulfonate	Acetic acid, sulfo-, 1-methyl ester	3-Butyldioxirane-3-carboxylic acid
alpha,beta-Dichloroacrylic acid	(E)-3-Isocyanoprop-2-enoic acid	2,4-Dimethylpent-4-enoic acid	(3R)-3-Amino-4-hydroperoxy-4-oxobutanoic acid
4-Pentenoic acid	3-Cyanobut-3-enoic acid	Trimethylsilylpropionic acid	1,1-Dichloroethyl hydrogen carbonate
3-Ethoxypropionic acid	2-Chloro-2-(dichloroamino)propanoic acid	2-Butynedioic acid-13C2	2-Methyl-3-(oxetan-2-yl)prop-2-enoic acid
(Z)-4-Methoxy-4-oxobut-2-enoic acid	2,3,3-Trifluoropropanoic acid	[(R)-2-Cyclohexenyl]acetic acid	Aminovinylglycine
Succinic acid monoisopropyl ester	2-Methyl-7-oxabicyclo[2.2.1]hept-5-ene-2-carboxylic acid	(2E,5R)-5-Hydroxy-2-hexenoic acid	4-Fluorobutyl hydrogen carbonate
Pentafluoropropionic acid	3,3-Dichloro-4-hydroxybutanoic acid	2-(2-Chloroethoxy)-2-oxoacetic acid	2-(Oxolan-3-ylsulfanyl)acetic acid
2-Propanone, 1-nitro-	3-Amino-3-cyanopropanoic acid	1,3-Dithiole-4-carboxylic acid	[(2S)-4-Chloro-3-oxobutan-2-yl]carbamic acid
2,3-Dichloro-4-oxo-2-butenic acid	Dichloroacetylacetic acid	cis-beta-Formylacrylic acid	[Hydroxy(hydroxymethyl)phosphanyl]formic acid
Phenyl hydrogen carbonate	3-Cyanopropanoate	2-Deuteriopentanoic acid	Ethylsulfanyl(methyl hydrogen carbonate
(1-(Aminocarbonyl)hydrazino)acetic acid	Carboxy ethenyl carbonate	(113C)Pentanoic acid	(1S,3S)-3-Hydroxy-cyclopentanecarboxylic acid
3-(2-Fluoroethoxy)propanoic acid	(2E)-3-Nitroacrylate	2,2-Dideuteriopentanoic acid	2-(2-Sulfanylethylamino)sulfanyl acetic acid
Tetrafluorosuccinic acid	2-Chloro-2-methylpropanedioic acid	Pentanoic-4,4-D2 acid	1,2-Dimethylcyclobutane-1-carboxylic acid
2-Fluorophenylacetic acid	2-Chloro-2-ethoxypropanoic acid	Pentanoic-5,5,5-D3 acid	Carboxy 2-[chloro(methyl)amino]acetate
Coumalic acid	2-Chloro-3-methoxy-2-methyl-3-oxopropanoic acid	5-Hydroxy-1-methyl-1H-pyrazole-3-carboxylic acid	Bromomethyl hydrogen carbonate
4-Methyl-3-pentenoic acid	Chloromethylcarbonate	(2S)-2-Acetamidobutanoic acid	2-(Oxolan-3-ylidene)acetic acid
Cyclopropane-1,1-dicarboxylic acid	2,3,3,3-Tetrachloropropanoic acid	2-Hydroxy-3-methoxypropanoic acid	3-Chloro-2-fluoroprop-2-enoic acid
beta-Hydroxyisovaleric acid	3-(Aminosulfonyl)propanoic acid	Cyclopropanecarboxylic acid, 2-ethenyl-, trans-	Aminoxylalanine
(Ethylthio)acetic acid	(2-Methoxy-2-oxoethyl)carbamic acid	2-Ethenyl-2-methylcyclopropane-1-carboxylic acid	(2R)-2-(Aminooxyamino)propanoic acid
2,5-Dimethyl-3-furoic acid	[1-(Dimethylamino)-1-oxopropan-2-yl]carbamic acid	2-Prop-1-en-2-ylcyclopropane-1-carboxylic acid	4,4,4-Trifluoro-3-methoxybut-2-enoic acid
Ethylsuccinic acid	Monomethylfumarate	(1R,2S,4R)-Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid	3-Sulfo-propionic acid methyl ester
1-Cyclohexene-1-carboxylic acid	3-(Hydroxyphosphinoyl)pyruvate	(2R)-Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid	3,4,5,6-Tetrahydropyridazine-3-carboxylic acid
2,2-Difluorosuccinic acid	[(Z)-3-Carboxy-1-hydroxyprop-2-enylidene]oxidanum	(2S)-Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid	4-Methyl-1-phosphanylpiperidine-4-carboxylic acid
Flupropanate	5,5-Dichlorovaleric acid	CID 12273926	3-(Nitrosomethyl)cyclobutane-1-carboxylic acid
2-Butenedioic acid (2Z)-, mono(1-methylethyl) ester	2-(1,3-Dioxolan-2-yl)acetic acid	Thiirane-2-carboxylic acid	2-Bromo-3-fluoroprop-2-enoic acid
3-(2-Furyl)propanoic acid	5-(Dimethylamino)-5-oxopentanoic acid	(2S)-Thiirane-2-carboxylic acid	Oxalo acetate

4-Ethoxy-4-oxobutanoic acid	4-Fluorothiophene-2-carboxylic acid	Methyl (2Z)-4,4-dimethoxy-2-butenolate	Dihydroxyphosphanyloxy hydrogen carbonate
Ethyl hydrogen malonate	2-(Difluoroamino)-2,2-difluoroacetic acid	4-Chlorothiophene-2-carboxylic acid	(2S)-2-[Chloro(ethyl)amino]propanoic acid
Benzoic acid-d5	2-(Sulfonylmethylamino)propanoic acid	2-Methyl-2-carboxymethylcyclopentanone	2-Methyl-4-oxopent-2-enoic acid
Cyclopentylacetic acid	(E)-4-(2-Methyloxiran-2-yl)but-2-enoic acid	3-Methylidene-4-oxocyclopentane-1-carboxylic acid	5-Methylhexa-3,5-dienoic acid
1,2-Dithiolane-3-carboxylic acid	2-Ethenoxy-2-oxoacetic acid	Pentanoic acid, 4,4-dimethyl-5-oxo-	Nitromethyl hydrogen carbonate
[Hydroxy(methoxy)phosphoryl]formic acid	1H-Diazepine-4-carboxylic acid	1-Chloro-1-nitropropan-2-one	3,4,4-Trifluoro-4-hydroxybutanoic acid
5-Methoxy-5-oxopentanoic acid	2-Methylidene-4-oxohexanoic acid	3-Hydroxy-2-methylpyridine-4-carboxylic acid	6-Bromohexa-2,4-dienoic acid
Fumaraldehydic acid	2-[(2-Methyloxiran-2-yl)methyl]prop-2-enoic acid	4-Chloro-4-pentenoic acid	4-Cyanopent-2-enoic acid
Dichloroisothiocyanatophosphine	(E)-2-Methyl-3-(oxetan-2-yl)prop-2-enoic acid	2-Propenoic acid, 2-ethoxy-	4-Hydroperoxy-2-methylbutanoic acid
2-Ethoxy-2-oxoacetic acid	3-Hydroxycyclopent-1-ene-1-carboxylic acid	(R)-2-(5-Oxotetrahydrofuran-2-yl)acetic acid	2-(3,4-Dihydro-2H-pyran-4-yl)acetic acid
5-Methyl-2-thiophenecarboxylic acid	3-Methyl-2,4-dioxopentanoic acid	3-Hydroxyisoxazole-5-carboxylic acid	2-(2-Sulfanylidenepropanoylamino)acetic acid
4,4,4-Trichlorobutyric acid	Chloromethylpivalate	2,5-Dioxabicyclo[4.1.0]heptane-7-carboxylic acid	4-Chloro-2-methylbut-2-enoic acid
Butanoic acid, 4-(dimethylamino)-4-oxo-	(2Z,4E)-5-Chloro-2,4-pentadienoic acid	2,4,4,4-Tetrachlorobutyric acid	3-Diazenylpropanoic acid
4-Bromobutyric acid	1-Methyl-1H-1,2,3-triazole-4-carboxylic acid	6-Chloro-5-methylnicotinic acid	2-[Ethenyl(methoxy)amino]acetic acid
2-(Furan-2-yl)acetic acid	(Z)-4-Methoxy-4-oxobut-2-enoate	(Z)-3-Nitro-2-butenic acid ethyl ester	2-[2-(Methylamino)acetyl]oxyacetic acid
Propanoic acid, 2-(aminoxy)-	2-(2,2-Dimethylhydrazinyl)acetic acid	(2Z,5E)-Hepta-2,5-dienoic acid	2-Cyanoiminoacetic acid
N-Acetyl-beta-alanine	N-Ethylhydroxyglycine	5-Methyl-4-hexenoic acid	(3R)-4-Hydroxy-3-methylbutanoic acid
Monoperoxysuccinic acid	Phosphono 2-fluoroacetate	2-(2-Methylcyclopropyl)acetic acid	3-Methyl-4-(methylamino)-4-oxobut-2-enoic acid
Monomethyl succinate	Oxan-3-yl hydrogen carbonate	Isothiazole-4-carboxylic acid	2,4-Hexadienoic acid, 2-chloro-, (Z,Z)-
(R)-(+)-Methylsuccinic acid	3,4-Dihydro-2H-pyran-5-yl hydrogen carbonate	2-Oxocyclopentanecarboxylic acid	2-[Methyl(phosphanylcarbonyl)amino]acetic acid
Pyrimidine-5-carboxylic acid	2-[Chloro(ethenyl)amino]acetic acid	2,2-Dimethyl-3-oxobutanoic acid	2-Chloro-4-oxobut-2-enoic acid
3-Hydroxy-2,2-dimethylpropanoic acid	3-Chloro-3,3-difluoropropionic acid	2,2-Dideuterio-4,4-dimethylpentanoic acid	(E)-4-Methoxybut-2-enoic acid
Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid	3,3-Dichloro-3-fluoropropanoic acid	3,3-Dideuterio-4,4-dimethylpentanoic acid	2-Methyl-3-(oxiran-2-yl)prop-2-enoic acid
2-Acetoxypentanoic acid	3-Chloro-3-fluoropropanoic acid	2-(Hydroxymethyl)cyclopropane-1-carboxylic acid	3-Chloro-3-cyanoprop-2-enoic acid
Bicyclo[2.2.1]heptane-2-carboxylic acid	2-Chloro-2,2-difluoroethanesulfonic acid	Dimethylcyclopropanecarboxylic acid	2-Chloro-5-hydroxypent-2-enoic acid
2-Norbornaneacetic acid	3-Cyclopropyl-2-oxopropanoic acid	4-Methyl-2-pentynoic acid	Furan-3-yl hydrogen carbonate
6-Chloronicotinic acid	2-(2-Oxopyrrolidin-3-yl)acetic acid	(Z)-2-Hexenoic acid	4-Hydroperoxy-3-methyl-4-oxobut-2-enoic acid
Acetic acid, [(1-methylethylidene)amino]oxy-	2-Cyclopropylbut-3-enoic acid	5-Sulfanylpent-3-enoic acid	3-Isocyanato-2-methylpropanoic acid

2-Acetamidoacrylic acid	3-Cyclopropylbut-3-enoic acid	1-Methylcyclopropene-3-carboxylic acid	4-Oxohexa-2,5-dienoic acid
3-(Trimethylsilyl)propionic acid	4,5-Dimethyloxazole-2-carboxylic acid	(E)-Pent-2-en-4-ynoic acid	3-Ethoxy-2-fluoroacrylic acid
N-Formyl-DL-alanine	(Z)-(2,3-13C2)But-2-enedioic acid	(Tert-Butylperoxy)acetic acid	3-Chlorobutyl hydrogen carbonate
2-Propanone, 1-(nitrooxy)-	2-(2-Sulfanylidene-1,3-thiazol-3-yl)propanoic acid	3-Nitrobutan-2-one	[(2R)-2-Hydroxypropyl] dihydrogen phosphate
1-Methylcyclopropanecarboxylic acid	2-Sulfanyl-1,3-thiazole-4-carboxylic acid	5-Methyl-2,5-dihydrothiophene-2-carboxylic acid	Levulinic acid, nickel(II) salt
4-Hydroxyiminopentanoic acid	3,5-Dideuteriofuran-2-carboxylic acid	(2R,5S)-5-Methyl-2,5-dihydrothiophene-2-carboxylic acid	(Z)-3-(Dimethylamino)prop-2-enoic acid
4-Methoxy-2-methylene-4-oxobutanoic acid	2-Chloro-4-methoxybutanoic acid	4,5-Dimethyl-2,5-dihydrothiophene-2-carboxylic acid	2-Hydroxybut-2-enedioic acid
Methiin	5,5-Dichloro-2H-pyridine-3-carboxylic acid	2,2,3-Trimethylcyclopropane-1-carboxylic acid	(2E)-2-Hydroxypenta-2,4-dienoate
(6r)-6-Methylcyclohex-3-ene-1-carboxylic acid	3,4-Dichloro-3,4,4-trifluorobutanoic acid	2,2,3,3-Tetrafluoro-4-methoxy-4-oxobutanoic acid	4-Hydroxybenzoate
(2R)-2-Formamidopropanoic acid	3,3-Dichloro-4-cyanobutanoic acid	[(2-Methoxy-2-oxoethyl)amino]phosphonic acid	3-Hydroxybenzoate
3-Chloropivalic acid	2,3-Dichloro-3-cyclopropylpropanoic acid	4-Oxohept-6-enoic acid	3-Methylsalicylate
Acetoxyacetic acid	4-Fluorocyclohexa-1,3-diene-1-carboxylic acid	2-(Methoxycarbonyl)cyclopropane-1-carboxylic acid	2-Butenedioic acid, 2-hydroxy-, (E)-
trans-4-Bromo-2-butenic Acid	4-Chlorocyclohexa-1,3-diene-1-carboxylic acid	(1R,2R)-Rel-2-(Methoxycarbonyl)cyclopropanecarboxylic acid	2-Hydroxyethylenedicarboxylate
Thiazole-5-carboxylic acid	2-Mercapto-2-methyl-succinic acid	(1R,2S)-2-(Methoxycarbonyl)cyclopropane-1-carboxylic acid	(2E)-2,3-Dihydroxybut-2-enedioate
3-(Hydroxymethylphosphinyl)propionic acid	2-(2-Sulfanylidene-1,3-thiazol-3-yl)acetic acid	Cyclohept-1-ene-1-carboxylic acid	4-Hydroxy-1-methyl-5-oxo-2H-pyrrole-3-carboxylic acid
Hydroxymethylsarcosine	Propan-2-yl carbonate	2,3-Dichloro-3-methylbutanoic acid	3-Hydroxy-4-methylthiophene-2-carboxylic acid
2-Pyridineacetic acid	2-Aminotriazole-4-carboxylic acid	2-Acetoxyethylphosphonic acid	5-Hydroxypyridine-3-carboxylate
[(Methoxythioxomethyl)thio]acetic acid	2,5-Dioxopentanoate	(2R)-Oxane-2-carboxylic acid	2-Hydroxyhexa-2,4-dienoate
2-Methylcyclohexanecarboxylic acid	3-Oxobutyl dihydrogen phosphate	2-(Hydroxyamino)propanoic acid	(2Z)-2-Hydroxypenta-2,4-dienoate
2,3-Oxiranedicarboxylic acid	2-(4-Methyl-1,3-oxazol-2-yl)acetic acid	2-Ethynylcyclopropanecarboxylic acid	3-Diazo-2-oxopropanoic acid
Tetrahydrofuran-2-carboxylic acid	2-Bromo-4-methoxy-butyric acid	Trifluoromethyl hydrogen sulfate	2-(3-Methyloxetan-3-yl)acetic acid
3-Oxobutan-2-yl Nitrate	2-Bromo-4-ethoxybutanoic acid	4-Chloro-4-methylpentanoic acid	2-(Oxetan-3-yl)acetic acid
N-Acetyl-L-alanine	Dicarboxyazaniumylideneazaniide	(R)-2-Fluorobutyric acid	2-(Chloromethyl)pyrimidine-5-carboxylic acid
(2-Hydroxyethyl) hydrogen succinate	3-Hydroxypropyl hydrogen carbonate	2-Fluorosuccinic acid	2-Oxabicyclo[3.1.0]hex-3-ene-6-carboxylic acid
1-Cyclopentene-1-acetic acid	3-Cyanobutanoic acid	2,2-Dimethoxyacetic acid	2-Chlorosulfonyl-2,2-difluoroacetic acid
2-Hydroxypropyl nitrate	Carboxymethylisocyanate	Cyclopropanecarboxylic acid, 1-(1-hydroxyethyl)-	4-Amino-4-oxo-2-sulfanylbutoanoic acid
(Tert-Butylthio)acetic acid	5-Chloro-5-oxopentanoic acid	4-Hydroxypent-2-ynoic acid	2-(Aminocarbamothioylsulfanyl)acetic acid

N-Carbamoyl-L-cysteine	2,2,2-Trifluoroethanesulfonate	(3S)-3-Methyl-4-oxopentanoic acid	2-Carbamothioxyloxyacetic acid
3-Chlorobut-2-ene-1-sulfonic Acid	Prop-2-enoxy hydrogen carbonate	cis,cis-Muconic acid mononitrile	(Carbamoylamino)oxy hydrogen carbonate
(R)-3-Hydroxybutyric acid	2H-Pyrimidine-1-carboxylic acid	2,5-Dihydrothiophene-2-carboxylic acid	(2S)-2-Amino-3-(oxiran-2-yl)propanoic acid
2-Methoxypropanoic acid	3-Carboxypropyl-hydroxy-oxophosphonium	2-(Cyclobuten-1-yl)acetic acid	(Z)-4-Hydroxy-2-pentenoic acid
4-Methoxybutanoic acid	2,2-Difluoropentanoic acid	3-(N-Hydroxycarbamoyl)-2-methylenepropionic acid	(Z)-4-Ethenoxy-4-oxobut-2-enoic acid
Glycidyl nitrate	Methyl(2-oxoethyl)carbamic acid	4-Methoxy-2,2-dimethyl-4-oxobutanoic acid	(Z)-6-Oxohept-3-enoic acid
Oxirane-2-carboxylic acid	3-Ethoxypropanoate	4-Chlorocyclohexanecarboxylic acid	2,4-Heptadienoic acid, (2E,4Z)-
(S)-3-Hydroxybutyric acid	2-(Methanethiylamino)acetic acid	2-Methyl-1,3-dithiane-2-carboxylic acid	(1S,5R,6S)-Bicyclo[3.1.0]hex-2-ene-6-carboxylic acid
5-Chlorothiophene-2-carboxylic acid	Butyl carbonate	5-Chloro-4-methyl-2-thiophenecarboxylic acid	3-Methyl-5-hydroxy-2-pentenoic acid
Carboxymethyl methanesulfonate	2-Trimethylsilyloxyprop-2-enoic acid	(1s,4r)-Bicyclo[2.2.1]heptane-2-carboxylic acid	3-Methylidenecyclohexane-1-carboxylic acid
(Z)-4-(Methylamino)-4-oxobut-2-enoic acid	2-Chloro-2-nitrosulfanylacetamide	(1~{r},2~{s})-2-Methylcyclohexane-1-Carboxylic Acid	4-Formylpent-4-enoic acid
Monofluoroacetyl glycine	(Carboxyoxamino) hydrogen carbonate	(1R,3R)-3-Methylcyclohexane-1-carboxylic acid	Bicyclo[3.1.1]heptane-3-carboxylic acid
3-Mercaptobenzoic acid	1-Formylcyclopropane-1-carboxylic acid	3-Methylcyclohex-3-ene-1-carboxylic acid	2-(2-Methoxyethoxy)-2-oxoacetic acid
4-Mercaptobenzoic acid	2-Methyl-3,4-dihydro-2H-pyran-5-carboxylic acid	2,4-Cyclohexadiene-1-carboxylic acid	(E)-5-Hydroxy-3-methylpent-3-enoic acid
2-Fluoronicotinic acid	Carbamoyloxyacetic acid	(1S,3R,6R)-7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid	3-Nitrooxybutanoic acid
Glycine, N-(1-methylethyl)-N-nitroso-	2,3,4,5-Tetrahydropyridine-4-carboxylic acid	7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid	(2S)-2-Sulfanylpentanoic acid
2-Cyclopentene-1-acetic acid	2H-Thiopyran-4-carboxylic acid	(1R,3R,6S)-7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid	(2R)-3-Methylidenecyclopropane-1,2-dicarboxylic acid
(R*,S*)-2,3-Dichlorosuccinic acid	2-Cyclobutylideneacetic acid	(1R,3S,6S)-7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid	3-(3-Methyldiazirin-3-yl)butanoic acid
Glycine, N-(ethoxycarbonyl)-	2-(Chloromethyl)-1,3-dioxolane-4-carboxylic acid	3-Methyl-7-oxabicyclo[4.1.0]heptane-3-carboxylic acid	5-Hydroxyoxane-3-carboxylic acid
4-Methyl hydrogen L-aspartate	Carboxylatoxybenzene	5-Methyl-2,5-dihydrofuran-2-carboxylic acid	(1R,5S)-Bicyclo[3.1.0]hexane-3-carboxylic acid
2-Fluorohexanoic acid	2-(5-Oxoxolan-3-yl)acetic acid	Glycidylethyl sulfone	3,4-Dihydroxypentanoic acid
3-Chlorobut-2-enoic acid	Methyl(3-oxopropyl)carbamic acid	3-Acetylsulfanyl-2-chloropropanoic acid	(5-Oxo-1,3-dioxolan-4-yl)acetic acid
Chlorofluoroacetic acid	Ethoxy hydrogen carbonate	Butanoic acid, 3-mercapto-, (R)-	3-Methyl-2,3-dihydrothiophene-5-carboxylic acid
N-Propionylglycine	1,3-Thiazepine-7-carboxylic acid	2-Chloro-3-sulfanylpropanoic acid	5-Methyl-4,5-dihydro-furan-3-carboxylic acid
2-Methyl-1,3-thiazole-5-carboxylic acid	2-Methoxyethylformate	2-Chloro-3-methyl-4-nitropyridine	3-(Difluoroamino)propanoic acid
2-Methyl-4-nitropyridine	3,4-Epoxy cyclohexane-1-carboxylate	2,4-Dichlorobutanoic acid	(2R,3R)-2,3-Dimethyloxirane-2-carboxylic acid
L-Allothreonine	2-Methoxyacrylate	3-(Acetyloxy)propanoic acid	(E)-3-Methyl-5-oxohex-2-enoic acid
O-Acetylserine	3-(Dimethylamino)butanoic acid	3-(Acetyloxy)butanoic acid	4-Methylcyclohexa-1,5-diene-1-carboxylic acid

S-Methylcysteine sulfoxide	Chlorosulfanylformic acid	(3R)-3-(Acetyloxy)butanoic acid	2-(2,2-Dimethylcyclopropyl)acetic acid
2-Methylcyclopropanecarboxylic acid	Tetrahydrofuranat	2-(2-Chloroacetyl)oxyacetic acid	2-Fluoro-3-methylbut-2-enoic acid
N-Acryloylglycine	Ethanedioic acid, monoethyl ester	(Cyclohexa-1,4-dien-1-yl)acetic acid	2,2-Dimethyl-3H-furan-4-carboxylic acid
2-Fluorobut-2-enedioic acid	Iododifluoroacetic acid	2-Oxabicyclo[4.1.0]heptane-7-carboxylic acid	2-Chloro-2-cyclopropylideneacetic acid
3,5-Difluorobenzoic acid	2H-Thiopyran-3-carboxylic acid	(2-Oxo-1,3-oxazolidin-3-yl)acetic acid	3-Cyano-3,3-dimethylpropanoic acid
Hex-4-enoic acid	5,6-Dihydro-2H-thiopyran-3-carboxylate	4-Amino-2,2,3,3-tetrafluoro-4-oxobutanoic acid	(1s,3r)-3-Hydroxycyclohexane-1-carboxylic acid
2,2-Dichloro-1-methylcyclopropanecarboxylic acid	1,1-Dihydroxy-3,3-dimethylurea	2,2-Dideuterio-3-hydroxybutanoic acid	4-Oxooxetane-2-carboxylic acid
2-Amino-4-methoxy-4-oxobutanoic acid	2-(5H-1,2-Oxazol-2-yl)acetic acid	3-Methoxycarbonyldiazirine-3-carboxylic acid	2-Prop-2-enoylsulfanylacetic acid
2-Oxo-cyclopentanepropionic acid	2-Chloroacetoacetate	Diazirine-3,3-dicarboxylic acid	Cyclohepta-1,3-diene-1-carboxylic acid
Propanoic acid, 3,3-dichloro-2,2-dimethyl-	alpha-Chloroacetoacetic acid	2-{Bicyclo[3.1.0]hexan-2-yl}acetic acid	(3S)-4-Hydroxy-3-methylbutanoic acid
3-Methoxypropane-1-sulfonic acid	Nitro hydrogen carbonate	3-Methyl-4-cyanobutyric acid	Cyclohepta-1,3,6-triene-1-carboxylic acid
2-(Methylsulfonyl)ethyl carbonochloridate	2-Methoxyethylacetate	Bicyclo[2.2.0]hexane-1-carboxylic acid	(2R,3S)-3-Methoxy-2-methylbutanoic acid
(R)-5-Oxotetrahydrofuran-2-carboxylic acid	2-(1,3-Oxazolidin-3-yl)acetic acid	3-Cyclohexene-1-acetic acid	(3R)-3-Methylcyclohexane-1-carboxylic acid
Ethyl hydrogen carbonate	6-Methylcyclohexa-2,4-diene-1-carboxylic acid	(Z)-4-Methoxy-2-methyl-4-oxobut-2-enoic acid	(3S)-3-Methyl-4-oxohexanoic acid
(R)-2-Chlorosuccinic acid	3-Sulfanylhexanoic acid	(E)-3-Methoxycarbonyl-2-methylacrylic acid	1-Methyl-2-oxo-2,3-dihydro-1H-imidazole-4-carboxylic acid
4-Oxopent-2-enoic acid	2,3,3-Trichloropropanoic acid	5,5-Dichloro-4-pentenoic acid	(2R,3R)-2-Methyloxirane-2,3-dicarboxylic acid
2,3-Dimercaptopropionic acid	2,3,4-Trichlorobutanoic acid	3-Carbamoylsulfanyl-propionic acid	(2S)-1-Acetylazetidine-2-carboxylic acid
4-Methyl-pent-2-enoic acid	Neopentylacetate	(2S)-2-Chlorohexanoic acid	(1S,2R)-2-Chlorocyclopropane-1-carboxylic acid
2-[[Dihydroxy(methyl)silyl]oxy]propanoic acid	N-Chloro-D-alanine	alpha-Chloroisocaproic acid	2-Methylthiirane-2-carboxylic acid
3-Methylcyclohexanecarboxylic acid	2-(Chlorosulfonyl)acetic acid	2-Hydroxycyclopentylacetic acid	(1R,2R)-2-Ethenylcyclopropane-1-carboxylic acid
4-Hydroxypentanoic acid	4-Hydroxypentanoate	trans-4-Hydroxy-4-methyl-2-pentenoic acid	1,4,6-Cycloheptatriene-1-carboxylic acid
Valerate	Chlorofumarate	5-Oxocyclohex-3-enecarboxylic acid	(2S)-2-Fluoro-3-methylbutanoic acid
Carboxysulfanylformic Acid	4-Chloro-2-methylidenebutanoic acid	2-(Dimethoxymethyl)-2-methyl-1-oxaspiro[2.2]pentane	Bicyclo[3.1.1]heptane-1-carboxylic acid
Aziridine-1-propionic acid	3-Tert-butylidioxirane-3-carboxylic acid	(3S)-3-Hydroxypent-4-enoic acid	Pentanoic acid, 4-mercaptop-, (4S)-
4,5-Dioxopentanoic acid	2-(Chloromethoxy)-2-oxoacetic acid	1-Methylcyclobutanecarboxylic acid	Nitrous acid carboxymethyl ester
2-(Dimethylphosphoryl)-2-hydroxyacetic acid	Propan-2-ylperoxy hydrogen carbonate	2-((Methylsulfonyl)oxy)propanoic acid	6-Methylpyridazine-4-carboxylic acid
4-Chloro-3-oxobutyric acid	5-Sulfanylidene-pentanoic acid	(2R)-2-(Methanesulfonyloxy)propionic acid	(Hydroxymethylthio)acetic acid
5-Fluoronicotinic acid	Propanedioic acid, dimethyl-, monoethyl ester	2-(3-Methylthiophen-2-yl)acetic acid	2-Ethylsulfanyl-2-oxoacetic acid

5-Fluoropentanoic acid	Acetic acid, 2-(2-furanyltio)-	5-Oxocyclohex-1-ene-1-carboxylic acid	2,4-Dimethylcyclobutane-1-carboxylic acid
3-(Methylsulfonyl)propanoic acid	4-Methyl-2-methylidenepent-4-enoic acid	2-(Cyanomethylthio)acetic acid	3-Fluoro-3-methylbutanoic acid
3-Oxatricyclo[3.2.1.0 ^{2,4}]octan-6-carboxylic acid	2-Ethenoxypropanoic acid	1-Azidocyclopropane-1-carboxylic acid	(E)-4-Methoxybut-3-enoic acid
3-(2-Oxotetrahydrofuran-3-yl)propanoic acid	(Z)-2-Methyl-4-oxo-2-pentenoic acid	3-Methylcyclopent-1-ene-1-carboxylic acid	(2S)-2-(2-Oxohydrazinyl)propanoic acid
5-Methylpyrazine-2-carboxylic Acid	1-Hydroxy-1-oxo-2-(sulfinatoamino)ethane	5-Mercaptopyridine-3-carboxylic acid	1-Chlorocyclopropanepropanoic acid
1-Formylcyclopropane-2-carboxylic acid	2-Carboxyethylphosphine	2-(Methylsulfonyl)pyridine-4-carboxylic acid	1,4-Dioxane-2-acetic acid, (2R)-
beta-Fluoroasparagine	Pyridin-4-yl hydrogen carbonate	4-Penten-2-ynoic acid	Tert-butyl cyclopropanecarboxylic acid
N-Nitroso-N-acetylglycine	Ethenoxy hydrogen carbonate	4-Methyl-pent-4-en-2-ynoic acid	(3R,4S)-3,4-Dimethylcyclopentane-1-carboxylic acid
2-Methylene-3-oxocyclopentaneacetic acid	(Z)-4-Chloropent-3-enoic acid	(2Z)-2,5-Hexadienoic acid	(1S,3S,6R)-7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid
4-Methoxy-2,4-dioxobutanoic acid	2-Methyloxetane-2-carboxylic acid	2-(5-Hydroxycyclopent-2-en-1-yl)acetic acid	2-[(1R,2R)-2-Hydroxycyclopentyl]acetic acid
Chlorotetrolic acid	2-(1,4-Dioxin-2-yl)acetic acid	2-[(1R,5R)-5-Hydroxycyclopent-2-en-1-yl]acetic acid	2-(1-Hydroxycyclopropyl)acetic acid
5-Fluoro-4-oxopentanoic acid	2-[Acetyl(methyl)amino]prop-2-enoic acid	3-Methyl-1,3-cyclohexadiene-1-carboxylic acid	(Z)-6-Hydroxyhex-3-enoic acid
N-Acetyl-D-alanine	2-Phosphorosoacetic acid	1-Methylcyclohexa-2,4-diene-1-carboxylic acid	N-(2-Fluoroethyl)-N-methyloxamic acid
3-Fluoropropane-1-sulfonic Acid	4-(Hydroxyamino)-4-oxobutanoate	4,4-Dichlorobut-3-enoic acid	5-Chloro-2-methyl-4-oxopentanoic acid
3-Methoxypropanoic acid	2-(Chlorooxyamino)acetic acid	2-[(Trifluoromethyl)sulfonyl]propanoic acid	Methyl 3-chloro-2-nitropropanoate
N-Acetyl-N-hydroxyaminoacetic acid	2-Ethylperoxy-2-oxoacetic acid	Pent-4-en-2-yl hydrogen carbonate	2-(Difluoromethyl)cyclopropane-1-carboxylic acid
3-(Trifluoromethyl)butyric acid	Carbonic acid allylethyl ester	4,4-Dimethylpent-2-ynoic acid	(3R)-3-Sulfonylpentanoic acid
1,2-Cyclopropanedicarboxylic acid	Chloro ethoxy acetic acid	2-Methoxyethyl nitrate	2-Methyl-2-[methyl(nitroso)amino]propanoic acid
6-Methylnicotinic acid	2-Acetamido-2-oxoacetic acid	2-(2,2-Dichloro-1-methylcyclopropyl)acetic acid	2-(4-Methyl-1,3-dioxolan-4-yl)acetic acid
1-Methylcyclopentanecarboxylic acid	Chloroacetoacetate	3-Methyl-2,5-dihydrothiophene-2-carboxylic acid	3-Hydroxy-3-methylcyclobutanecarboxylic acid
Cyclopropylacetic acid	2-Oxo-2-(2-oxoazetidin-1-yl)acetic acid	2-Azido-2-methylpropanoic acid	3-Methyl-3-nitrosobutanoic acid
2-Nitrocyclopropane-1-carboxylic acid	Oxazepine-7-carboxylic acid	(1R,5S,6R)-Bicyclo[3.1.0]hex-2-ene-6-carboxylic acid	3-[Formyl(methyl)amino]butanoic acid
3-Pentynoic acid	Thiazepine-7-carboxylic acid	3-Chloropent-4-enoic acid	(2R)-2-Methoxycarbonylcyclopropane-1-carboxylic acid
Trifluoromethyl peroxyhydrate	2H-Thiazine-6-carboxylic acid	(E)-5-Chloropent-3-enoic acid	(2R)-7-Oxabicyclo[2.2.1]heptane-2-carboxylic acid
4,4,4-Trifluoro-3-methylbut-2-enoic acid	3-Chlorooxypropane-1-sulfonic acid	(E)-5-Bromopent-3-enoic acid	(E)-5-Fluoro-2-methylpent-2-enoic acid
Thiophosphoenolpyruvate	2-Ethyl-1-methylcyclopropane-1-carboxylic acid	[(2S)-2-Hydroxypropyl] dihydrogen phosphate	1-Cyclohexene-1-carboxylic acid, 5-methylene-

6-Hydroxyisonicotinic acid N-oxide	2-[Ethyl(methylcarbamoyl)amino]acetic acid	(1r)-3-Oxocyclohexanecarboxylic Acid	(4S)-4-Methyl-2-oxo-1,3-dioxolane-4-carboxylic acid
N-Nitrosarcosine	2-(Aminomethyl)-pyridine-4-carboxylic acid	(Z)-2-Chloropent-2-enoic acid	2-Methyl-2-(1-methylcyclopropyl)propanoic acid
Glycolic acid, methyl ester, methanesulfonate	4-Methyl-2H-pyrimidine-1-carboxylic acid	2-Chloro-3-methylbut-2-enoic acid	2-Acetyl-2-methylcyclopropane-1-carboxylic acid
Hydroxyacetone phosphate	2,3-Dihydroazete-4-carboxylic acid	3,3-Difluoroacrylic acid	5,5-Difluoropentanoic acid
Methylenecyclopropylacetic acid	2-Carboxysulfanylacetic acid	3-Bromo-4-oxopentanoic acid	(2S)-2-Methyl-4-sulfanylidene-pentanoic acid
2-Methylacetoacetic acid	2-Nitrosulfanylacetic acid	Glycone	(2S,3S)-3-Mercapto-2-methylbutanoic acid
(R)-2-(Dimethylamino)propanoic acid	2-Chlorosulfanylacetic acid	2-Chloro-2-methylpent-4-enoic acid	(Z)-2-Hydroxy-4-oxohex-2-enoic acid
Difluorooxaloacetate	Acetic acid, aminomercapto-	2-Methoxycarbonyl-1-methylcyclopropane-1-carboxylic acid	3-Methylthiirane-2-carboxylic acid
2-Keto-4-mercaptobutyric acid	2-Hydroxysulfanylacetic acid	2,5-Dimethyloxolane-2-carboxylic acid	(E)-5-Formyloxypent-3-enoic acid
Bicyclo[3.1.0]hexane-6-carboxylic acid	2-Isocyanatosulfanylacetic acid	(E)-4-Oxohex-2-enoic acid	3,3-Difluoro-2-(fluoromethyl)prop-2-enoic acid
3-(N-Nitroso-N-methylamino)propionic acid	2-(3-Methyloxiran-2-yl)acetic acid	Ethylsulfanylformic acid	2-(Methoxymethyl)cyclopropane-1-carboxylic acid
4-Mercaptobutyrate	3-(Ethoxycarbonyl)oxirane-2-carboxylate	Propylsulfanylformic acid	7-Oxabicyclo[4.1.0]hepta-2,4-diene-3-carboxylic acid
5-Amino-2,5-dioxopentanoate	2-(2H-Pyran-3-yl)acetic acid	2-Methoxyethyl hydrogen carbonate	3H-Dithiole-4-carboxylic acid
3,4-Dichloro-5-isothiazolecarboxylate	(E)-4-Isocyano-2-methylpent-2-enoate	2,2,2-Trichloroethyl hydrogen carbonate	(E)-5-Methoxy-4-oxopent-2-enoic acid
N-(Mercaptoacetyl)glycine	4-Oxobicyclo[3.1.0]hex-2-ene-6-carboxylic acid	2-Ethylcyclopropane-1-carboxylic acid	(E)-3-(Chloromethyl)-4-oxobut-2-enoic acid
N-Methacryloylglycine	4-Hydroxy-5-sulfanylpentanoic acid	(E)-2-Methyl-5-oxopent-2-enoic acid	6-Oxooxane-3-carboxylic acid
L-Asparagine, N2-methylene-	2-(2,2-Dimethylhydrazinyl)propanoic acid	(E)-Hex-2-en-4-ynoic acid	7-Oxabicyclo[4.1.0]hept-3-ene-3-carboxylic acid
Difluoromethoxyacetic acid	7-Oxa-3-azabicyclo[4.1.0]heptane-3-carboxylic acid	2,3-Dichloro-2,3-difluoropropanoic acid	(2S)-2-Propanoyloxypropanoic acid
Dicarboxylic acid	2-Amino-3-(oxiren-2-yl)propanoic acid	2-Deuteriobutanedioic acid	3-Cyclopropyl-3-methylbutanoic acid
4-Methylbenzoate	2-(2,3-Dihydrofuran-3-yl)acetic acid	Succinic acid-2,2,3,3-d4	3-Oxabicyclo[3.1.0]hexane-2-carboxylic acid
CID 154375	2-(Sulfamoylamino)acetic acid	Succinic acid-2,3-13C2	(S)-2-Cyclohexene-1-carboxylic acid
2-Chloro-3-methylbut-2-enedioic acid	Acetoxyglycolic acid	(113C)Butanedioic acid	3-Methyl-2-oxo-3H-furan-5-carboxylic acid
Peroxynitric acid, chlorodifluoromethyl ester	3-Ethenoxypropanoic acid	Benzoic acid-d	3-(Methylideneamino)propanoic acid
3-Azidopropanoic acid	Propoxyformic acid anion	Benzoic acid-1-13C	4-Fluoro-3-(fluoromethyl)butanoic acid
Azidoacetic acid	Cyclohexylacetate	Benzoic acid-3,5-d2	2-(2-Methylcyclopent-2-en-1-yl)acetic acid
Methyl chloronitroacetate	2-Methylpropyl carbonate	Benzoic acid-13C6	2-Cyclopropoxyacetic acid
2-[Formyl(hydroxy)amino]propanoic acid	3-Methanesulfonyl-2-methylpropanoic acid	4,4,4-Trifluoro-2-oxobutanoic acid	1,2,3-Triazine-5-carboxylic acid
Succinate	2-Methyl-4-oxo-3-sulfanylpentanoic acid	3,3-Dideuterio-4-methoxy-4-oxobutanoic acid	4-Fluoro-3-methylbutanoic acid
Sulfo betaine	5-Chloro-2-methylidenehex-5-enoic acid	2,2,3,3-Tetradeuterio-4-methoxy-4-oxobutanoic acid	N-Methylidene-L-alanine

Dimethylsulfonylacetate	(Carboxysulfanyl)amino)sulfany lformic acid	3-(3-Oxo-1,2-thiazol-2-yl)propanoic acid	5-Oxazolecarboxylic acid, 2-methoxy-
2-Hydroxyethylthioacetate	4-Oxotetrahydrothiophene-3-carboxylic acid	3-Chlorocyclohexanecarboxylic acid	6-Chloro-5-methylpyrimidine-4-carboxylic acid
3-Chloro-2-methylpropanoic acid	2-Oxo-1,3,4-oxathiazinane-5-carboxylic acid	(E)-4-Methyl-2,4-pentadienoic acid	2,3-Dinitrosobutanoic acid
Methoxyacetate	2,6-Difluoropyridine-4-carboxylic acid	(4S)-2-Sulfanylidene-1,3-thiazolidine-4-carboxylic acid	4-Cyano-2-methylpent-2-enoic acid
N-Chloroglycine	3-Formyloxybutanoic acid	3-(1,3-Dioxolan-2-yl)propanoic acid	2,3-Dideuteriobut-2-enedioic acid
But-2-enedioate	1,2,2,2-Tetrachloroethyl hydrogen carbonate	2-Carbamoylcyclopropane-1-carboxylic acid	2-(Methoxyamino)prop-2-enoic acid
beta-Alanine, N-ethyl-N-nitroso-	2-Amino-3-(ethanethiolyamino)propanoic acid	(1R,2R)-2-Carbamoylcyclopropane-1-carboxylic acid	(2S)-6-Oxa-1-azabicyclo[3.1.0]hexane-2-carboxylic acid
Chloroacetyl phosphate	3-Methoxy-2-methylpropanoic acid	2-(Isoxazol-3-yl)acetic acid	Carbamoyl(fluoro)carbamic acid
2,2,3,3-Tetradeuterio-3-trimethylsilylpropanoic acid	2-Dimethylsulfonylpropanoate	5-Isoxazoleacetic acid	5-Amino-4-oxopent-2-enoic acid
(E)-3-(Methylthio)acrylic acid	4-Chlorobutyrate	2-[(Methoxycarbonyl)amino]propanoic acid	2-(Dibromoamino)acetic acid
2-Chloro-4-methylpentanoic acid	3-Methylcyclohexane-1-carboxylate	N-Carbomethoxy-L-alanine	2-Chloro-2-methylpentanoic acid
N-Ethyl-N-nitrosoglycine	2-Norbornylacetate	3-Formyloxypropanoic acid	4-Bromooxy-4-oxobutanoic acid
(2-Methoxy-2-oxoethyl)phosphonic acid	2-(Oxiran-2-yl)acetate	3-Acetamido-2-sulfanylpropanoic acid	5-Chloro-2-methyl-5-oxopentanoic acid
3-(Methylamino)-3-oxopropanoic acid	4-Chloro-4-oxo-butyrate	Methacryloyloxyacetic acid	3-Iminopentanoic acid
5-Hydroxyhexanoic acid	Sulfuric acid 3-methyl-3-butenyl ester	2-Cyclopenta-1,4-dien-1-ylacetic acid	2,2-Dimethyl-3-sulfanylidenepropanoic acid
Dimercaptosuccinic acid monomethyl ester	2-(2-Methylcyclopropyl)prop-2-enoic acid	1-Nitro-2-propanol acetate	2-Chloro-2,3-dimethylbutanoic acid
Difluoromethoxydifluoroacetic acid	2,2,2-Trichloroethyl carbonate	(2S)-4-Amino-2-hydroxy-4-oxobutanoic acid	(1R,3R)-3-Hydroxycyclopentanecarboxylic acid
3-Chlorolevulinic acid	Carboxy methyl carbonate	3-Cyclopropylbut-2-enoic acid	(2Z,4Z)-2-Hydroxyhexa-2,4-dienoate
4-Hydroxypenta-2,4-dienoic acid	2-(1-Methylcyclopropyl)prop-2-enoic acid	2-Methoxycarbonyl-2-methylcyclopropane-1-carboxylic acid	1,3,4-Thiadiazol-2-yl dihydrogen phosphate
Codipilic acid	3-Oxo-3-(sulfanylamino)propanoic acid	(1R,2R)-2-Methoxycarbonyl-2-methylcyclopropane-1-carboxylic acid	Bicyclo[2.2.1]hept-1(6)-ene-2-carboxylic acid
(1R,5R,6S)-3-Methylbicyclo[3.1.0]hex-2-ene-6-carboxylic acid	2-(Methylsulfonylmethyl)acrylic acid	3-Fluoro-2,2-dimethylpropanoic acid	(2R,5S)-5-Chloro-1,3-oxathiolane-2-carboxylic acid
Bicyclo(3.1.0)hex-2-ene-6-carboxylic acid, 3-methyl-, (1alpha,5alpha,6beta)-	3-Oxo-2-sulfanylbutanoic acid	2-[Acetyl(methyl)amino]propanoic acid	Carbonochloridoyleperoxymethanedithioic acid
5-Methylfuran-3-carboxylic acid	Isocyanatoacetate	N-Acetyl-N-methyl-L-alanine	4-Methylsulfanyl-4-sulfanylbutanoic acid
Cyclopropaneacetic acid, 2-methylene-, (S)-	4,5-Dihydrooxazole-4-carboxylic acid	(E)-4-Chloropent-2-enoic acid	3,3,4-Trichloro-4-hydroxybutanoic acid
4-Hydroxypent-3-enoic acid	Oxazepane-4-carboxylic acid	2-Sulfinoacetic acid	3-(Dimethylamino)-3-sulfanylpropanoic acid
Cyclohexa-1,5-diene-1-carboxylic acid	2,2,4-Trifluoro-3-oxopentanoic acid	(E)-4-Chloro-2-hexenoic acid	5-Chloro-5-hydroxypent-2-enoic acid
(2R)-2-Amino-3-(methylsulfinyl)propanoic acid	2,2-Difluoro-3-oxopentanoic acid	4-Bromo-pent-4-enoic acid	2,3-Dichloro-3-oxopropanoic acid
(3E)-Hexa-3,5-dienoic acid	2,4-Difluoro-3-oxopentanoic acid	2-[Ethyl(dimethyl)azanumyl]acetate	2-(Dimethylaminoxy)prop-2-enoic acid
Propanedioic Acid, Dichloro-	3,4,4,4-Tetrafluoro-2-methylidenebutanoic acid	Ethyl dimethyl(carboxymethyl)aminium	3-Formyl-4-hydroxybutanoic acid
Perfluorovinylacetic acid	5-Oxo-5-sulfanylpentanoic acid	3-Azido-2-methylpropanoic acid	Pyrrolidin-1-ylsulfanyllformic acid

2-Nitrososulfanylacetic acid	(2-Methylpropan-2-yl)oxy carbonate	(2R)-3-Azido-2-methylpropanoic acid	Bicyclo[3.1.0]hexa-1(6),2,4-triene-6-carboxylic acid
3-Hydroxy-2-oxobutanoic acid	2-Chloromethylisonicotinic acid	2-(2-Ethylcyclopropyl)acetic acid	3,3-Dichlorobutanoic acid
4-Hydroxybut-2-enoic acid	But-3-en-2-yl hydrogen carbonate	3,4-Dimethylpent-4-enoic acid	2-(1-Sulfanylethoxyimino)acetic acid
Dehydromethionine	3,3-Difluoropropane-1-sulfonate	4-Chloro-3-mercaptopbenzoic acid	2,2-Difluoro-4-nitrosobutanoic acid
5-Chloro-4-oxopentanoic acid	4,4,4-Trifluorobutane-2-sulfonate	(R)-2-Amino-4-(methylamino)-4-oxobutanoic acid	3-Methyl-4-oxobut-3-enoic acid
3-Amino-4-oxo-pentanoic Acid	4,4,4-Trifluorobutane-2-sulfonic acid	3-Azabicyclo[3.1.0]hex-2-ene-2-carboxylic acid	4-Fluoro-2-methylbut-2-enoic acid
2-Oxo-2H-pyran-6-carboxylic acid	2,2-Difluoro-2-fluorosulfonylacetate	Oxirane-2,3-dicarboxylic acid monoethyl ester	(E)-3-(2-Oxoethylsulfanyl)prop-2-enoic acid
4-Oxocyclohexanecarboxylic acid	2-Acetoxy-acrylic acid	3-Methanesulfinylpropanoic acid	3-Hydroxy-3,3-bis(sulfanyl)propanoic acid
Methylbetaine	3-Nitrobutanoic acid	3-(Ethylsulfinyl)propanoic acid	2-(1-Chloroethenoxy)acetic acid
Thioacetylthioglycolic acid	2-Ethoxypropanoate	3-(Methoxycarbonyl)oxirane-2-carboxylic acid	3-Phosphanylsulfanyl-3-sulfanylpropanoic acid
2-Deoxyglyceraldehyde 3-phosphate	5-Hydroxyhexanoate	(2S,3R)-3-Methoxycarbonyloxirane-2-carboxylic acid	2-Cyclopropyl-3-sulfanylpropanoic acid
(2S)-2-Amino-5-oxopentanoic acid	3-Oxocyclohexa-1,5-diene-1-carboxylic acid	(S)-3-Hydroxy-3-methylvaleric acid	2-Chlorooxolane-3-carboxylic acid
2-Butenedioic acid, 2,3-difluoro-, (Z)-	1,2,2,3-Tetramethylcyclopropane-1-carboxylic acid	5-Chloro-3-methylpentanoic acid	4-Oxo-4-(sulfanylamino)butanoic acid
3-(2-Methylidenecyclopropyl)-2-oxopropanoic acid	Carboxyoxymethyl hydrogen carbonate	3-(1-Methylcyclopropyl)propanoic acid	2-(Hydroxyhydrazinylidene)acetic acid
4-Hydroxyhexanoic acid	(E)-3-Methyl-4-oxohex-2-enoic acid	Bicyclo[4.1.0]heptane-3-carboxylic acid	5,5-Dichloropenta-2,4-dienoic acid
2-Hydroxyisonicotinic acid N-oxide	4-Chloro-2-methyl-4-oxobutanoic acid	(Z)-5-Chloro-2-methylhex-4-enoic acid	4-Isocyanatobut-2-enoic acid
Spiropentaneacetic acid	(2S)-2-(Sulfinamino)propanoic acid	(E)-3-(Trimethylazaniumyl)prop-2-enoate	2-Diazenyl-2-methylpropanoic acid
Hydroxypyruvaldehyde phosphate	Trichloromethoxy hydrogen carbonate	4-Methyl-4-nitrosopentanoic acid	3,4-Dichlorobut-2-enoic acid
delta(3)-Thiazoline-4-carboxylate	Butan-2-yl carbonate	3-Hydroxy-3-oxopropane-1-sulfinate	2-Methyl-3-nitrosopropanoic acid
Phosphonatooxyformic acid	2-[[Carbonochlorido(methyl)amino]-methylamino]acetic acid	4-Hydroxy-4-oxobutane-2-sulfinate	4-Ethenoxybut-3-enoic acid
3-(3-Methyloxiran-2-yl)prop-2-enoic acid	1-Methoxyethyl hydrogen carbonate	3-Methylcyclopentane-1-carboxylic acid	3H-Pyridin-1-ium-5-carboxylic acid
(2R,3R)-2,3-Dimercaptosuccinic acid	Acetic acid, [(2-oxo-1-azetidinyloxy)-	(1S,3R)-3-Methylcyclopentane-1-carboxylic acid	1,2-Oxazolidin-3-yl hydrogen carbonate
3-Nitro-2-butanol nitronate	3-Methylbutyl hydrogen carbonate	(1S,3S)-3-Methylcyclopentane-1-carboxylic acid	4-Chloro-2-oxopent-4-enoic acid
2-Methyl-2-(methylsulfinyl)propionic acid	2-Formylisonicotinic acid	4,4,4-Trifluorobut-2-ynoic acid	2,2-Difluoro-4-hydroxybutanoic acid
Fluorohydroxyacetone phosphate	Monomethyl cyclopropane-1,1-dicarboxylate	N-Methyl-N-(2-oxopropyl)nitramide	3-Chlorohex-2-enoic acid
5-Methylthiophene-3-carboxylic acid	2-[1-(Dimethylamino)cyclopropyl]acetic acid	2-Aminooxybutanedioic acid	(2S)-2-Amino-3-(oxiren-2-yl)propanoic acid
3,3-Dimethylcyclobutanecarboxylic acid	(Methyldisulfanyl)formic acid	3-Dihydroxyphosphanyl-2-oxopropanoic acid	4-Chloro-3-methylidenepent-4-enoic acid
Tetrahydropyran-4-carboxylic acid	3,3-Dimethyl-4-sulfanylidene-pentanoic acid	2-Acetoxybutanoic acid	Propylaminosulfonylformic acid

4-Methylcyclohex-1-ene-1-carboxylic acid	1-Aminopyrazole-4-carboxylic acid	3-Methoxytetrafluoropropionic acid	2-Bromo-4-(oxiran-2-yl)butanoic acid
6-Methylcyclohex-3-ene-1-carboxylic acid	3-Methoxycyclopentane-1-carboxylic acid	3-Bromo-2,2,3,3-tetrafluoropropanoic acid	2-(Ethenylamino)oxyacetic acid
2-Bromoisonicotinic acid	(Chloromethoxy)acetic acid	5-Bromofuran-3-carboxylic acid	2,3,3,3-Tetrakis(sulfanyl)propanoic acid
2-Amino-3-methoxybutanoic acid	3-Methyldioxetane-3-carboxylic acid	(1R,6S)-6-Methylcyclohex-3-ene-1-carboxylic acid	3-Fluoro-5-oxopent-4-enoic acid
2,2'-(Nitroimino)diacetoneitrile	Thiazinessig	(R)-2-Fluoro-2-methyl-malonic acid monoethyl ester	3-Fluoro-2,2-dimethyl-3-oxopropanoic acid
4,4,4-Trichlorobut-2-enoic acid	1-Oxo-1,3-thiazolidine-4-carboxylic acid	2-Fluoro-3-methoxy-2-methyl-3-oxopropanoic acid	4-Amino-4-hydroxybutanoic acid
2-Methyl-4-oxopentanoic acid	2-(Oxiran-2-yl)butanoic acid	Phosphonic acid, [1-(acetylamino)ethyl]-	3-Iodo-2,4-dioxopentanoic acid
2-(Cyclohex-2-en-1-yl)acetic acid	2-[Ethenyl(formyl)amino]propanoic acid	3-Chloro-3-methylpentanoic acid	Carboxymethyl-dimethyl-(trifluoromethyl)azanium
3-Oxocyclopentanecarboxylic acid	3,3-Dimethylbutan-2-yl hydrogen carbonate	2-(Trifluoromethyl)cyclopropane-1-carboxylic acid	2-Bromo-4,4-dichlorobutanoic acid
3-[Methyl(nitro)amino]propanoic acid	2-Methylidene-4-methylsulfanylbutanoic acid	trans-2-(Trifluoromethyl)cyclopropanecarboxylic acid	3-Oxo-2,2,4-tris(sulfanyl)butanoic acid
2-(Tetrahydrofuran-2-yl)acetic acid	2-[Ethyl(sulfanyl)amino]acetic acid	Trichloro(nitroperoxy)methane	2-(1,3-Dithiol-2-yl)acetic acid
n-(Dichloroacetyl)glycine	2-Methyl-4-oxobut-3-enoic acid	2-(3-Hydroxypyridin-2-yl)acetic acid	4-Imino-2-methylpent-2-enoic acid
3,5-Dibromo-4-oxopentanoic acid	2-Chloro-2-methoxycarbonyl-1-cyclopropanecarboxylic acid	2-Chlorocyclopropane-1-carboxylic acid	4-Chloro-2-methylpent-2-enoic acid
[(2-Chloroethyl)sulfanyl]acetic acid	1-Chloro-2-fluorocyclopropanecarboxylic acid	2-Oxo-1,3-dithiolane-4-carboxylic acid	2-(Chloromethyl)but-2-enedioic acid
(1s,2s)-2-Chlorocyclohexanecarboxylic acid	ETHYLPropiolate	3,6-Dihydro-2H-pyran-4-carboxylic acid	3-Hydroxysulfanyloxypropanoic acid
N-Chloroacetyl glycine	1-Chloro-1,2-cyclopropanedicarboxylic acid	2-Fluoro-2-nitroacetic acid	(3S)-3-[(2S)-Oxiran-2-yl]butanoic acid
Difluoro(nitro)acetic acid	2-Methylidene-5-sulfanylidene-pentanoic acid	2-Bromo-4-methoxy-4-oxobutanoic acid	2,4,4-Trichlorobutanoic acid
4-Thiazoleacetic acid	2-Chloroprop-2-enyl hydrogen carbonate	2,3-Dihydrothiophene-3-carboxylic acid	2-(2-Sulfanylacetyl)sulfanylacetic acid
2-Chloroisonicotinic acid	5-Chlorocyclohexa-1,5-diene-1-carboxylic acid	(Z)-Tamarindienal	3-Methyl-4-nitrosobutanoic acid
2-Bromo-3-methoxybutanoic acid	2-[1-Hydroxyethyl(methyl)amino]acetic acid	Carbamodithioic acid, (2-hydroxyethyl)methyl-	3-Sulfanyl-2-sulfanylidene-propanoic acid
Cyclopentanecarboxylic acid, 3-(hydroxyimino)-	3-Acetylcyclopentane-1-carboxylic acid	2,3-Dimethyloxirane-2-carboxylic acid	7-Oxa-1-azabicyclo[4.1.0]heptane-2-carboxylic acid
4-(Dimethylamino)butanoic acid	3,3-Difluoro-3-fluorosulfonylpropanoic acid	(2R,3S)-2,3-Dimethyloxirane-2-carboxylic acid	(3S)-3-Methoxycarbonyloxirane-2-carboxylic acid
3-(Dimethylamino)propanoic acid	3-Hydroxyamino-butyric acid	2-Methanesulfonamidopropanoic acid	2-(2-Chloroethenylamino)oxyacetic acid
n-Acryloylalanine	Carboxymethyl-formyl-dimethylazanium	2-Methylfuran-3-acetic acid	1,4-Oxathiane-3-carboxylic acid
2,6-Dichloropyrimidine-4-carboxylic acid	2-Chloro-2,3,3-trimethylbutanoic acid	Chlorofluoronitroacetic Acid	2-Amino-4-chlorobut-2-enoic acid
3-(Chloromethyl)benzoic acid	2-Formylsulfanylacetic acid	2,2-Difluoro-3-methylbut-3-enoic acid	Furan-3-ylsulfanylformic acid
6-Fluoronicotinic acid	2-(1-(Hydroxymethyl)cyclopropyl)acetic acid	Butanoic acid, 2,4-dimercapto-	3-Hydroxy-2,4-bis(sulfanyl)butanoic acid

4-Fluoro-3-methylbenzoic acid	3-Methyloxaziridine-3-carboxylic acid	(E)-4-Amino-5-fluoropent-2-enoic acid	2-Aminoperoxyacetic acid
3-Chloro-2-methylprop-2-enoic acid	Carboxy propan-2-yl carbonate	[Carboxy(hydroxy)phosphoryl]formic acid	5-Methoxypent-2-enoic acid
2-(Isopropylideneaminoxy)propionic acid	2,2-Dihydroxyethyl hydrogen carbonate	1-(Carboxymethyl)tetrahydrothiophene-1-ium	5-Fluorocyclohexa-1,5-diene-1-carboxylic acid
[Butan-2-yl(nitroso)amino]acetic acid	Oxolan-2-ylsulfanylformic acid	Ethyl hydrogen chloromalonate	2-(Tetrathiolan-5-yl)acetic acid
[Tert-butyl(nitroso)amino]acetic acid	3-Fluorovaleric acid	5,5-Difluoropent-4-enoic acid	3-Methylidenephosphanylpropanoic acid
3-Methyl-4-oxopentanoic acid	3-Fluorocaproic acid	1,1-Difluoro-2-methoxy-2-oxoethanesulfonic acid	3-Methylsulfonylbutanoic acid
(Z)-3-Acetamidoprop-2-enoic acid	2,3-Dichlorovaleric acid	Methyl 4-carboxy-2-hydroxybutanoate	2-(Fluoromethyl)pent-2-enoic acid
(2r,3s)-2,3-Dichlorobutanedioic acid	4-Carboxyoxybutanoic acid	2,2,3,3-Tetrafluoro-3-methylsulfonylpropanoic acid	3-Methyl-5-oxopent-2-enoic acid
5-Chloronicotinic acid	2-Fluorosulfonyloxypropanoic acid	2-Chloro-3-ethoxy-2-methyl-3-oxopropanoic acid	Bicyclo[3.1.0]hexa-1,3,5-triene-2-carboxylic acid
5,6-Dichloronicotinic acid	3-Acetyl-3-butenic acid	Propanoic acid, 2-(acetylthio)-	3,3,4-Trifluoro-4-methylpentanoic acid
2,3-Dihydroxybutanoic acid	4-Azidopentanoic acid	Bicyclo[2.2.1]hepta-2,5-diene-2-carboxylic acid	3-Isocyanatobutanoic acid
5-Oxotetrahydrofuran-2-carboxylic acid	3-Chloro-4-methylpentanoic acid	2-(1-Methylcyclopenta-2,4-dien-1-yl)acetic acid	Dithiocarboxyperoxymethaneditioic acid
4-(Hydroxyamino)-4-oxobutanoic acid	2,2-Dichloro-2-cyclopropylacetic acid	(E)-3-(Ethylthio)acrylic acid	2-Carboxysulfanyl-2-sulfanylacetic acid
Tricyclo[3.2.1.0~2,4~]oct-6-ene-3-carboxylic acid	4-Oxobuta-2,3-dienoic acid	2-Propenoic acid, 3-(ethylthio)-	(5-Methylpyrazin-2-yl)hydrogen carbonate
5-Methylnicotinic acid	4-Hydroxy-2-methylidene-4-oxobutanoate	2-(Dimethylcarbamoyl)acetic acid	2-(Cyanomethoxyimino)acetic acid
(2S)-Norbornane-2-carboxylic acid	2-(Oxiran-2-ylmethoxy)prop-2-enoic acid	2-Oxoazetidine-1-acetic acid	(1R,2S)-2-Ethylcyclopropylacetic acid
2-Fluoro-4-methylpentanoic acid	1-Methoxycyclopropane-1-carboxylic acid	2-Methoxycarbonylprop-2-enoic acid	4,4-Bis(sulfanyl)butanoic acid
3-[Fluoro(dimethyl)silyl]propanoic acid	2-Methyl-3-oxo-2,3-dihydropyridazine-4-carboxylic acid	3-Methyl-2-sulfanylbutanoic acid	2-Azabicyclo[3.1.0]hexa-1,3,5-triene-6-carboxylic acid
3-(Acetylthio)propanoic acid	3-Methylsulfinyl-2-oxopropanal	(2R)-3-Methyl-2-sulfanylbutanoic acid	2-(2-Bromoethenylamino)oxyacetic acid
3-Cyanopropanoic acid	5-Chloro-6-methylnicotinic acid	Butanoic acid, 2-mercapto-3-methyl-, (2S)-	3-(1-Methyl-2-oxocyclopropyl)propanoic acid
3-(Oxolan-2-yl)propanoic acid	6-Methyl-7-oxabicyclo[4.1.0]heptane-3-carboxylic acid	(Fluorosulfonyl)acetic acid	1-Methyl-3H-1,2-thiazole-4-carboxylic acid
2,2-Dimethyl-3-sulfanylpropanoic acid	4-Methyl-5H-1,3-thiazole-4-carboxylic acid	2-Methylpyrimidine-5-carboxylic acid	3H-Pyridin-1-ium-4-carboxylic acid
n-(2-Chloroethyl)-n-methylglycine	2-Methylcyclopropane-1-carboxylate	2-[(E)-Ethylideneamino]oxyacetic acid	3-Hydroxy-4-sulfanyl-2-sulfanylidenebutanoic acid
Pyridazine-3-carboxylic acid	3-Cyano-2-oxopropanoic acid	2,2-Dichloro-3,3,3-trifluoropropionic acid	5-Chlorohexa-3,5-dienoic acid
Bicyclo[3.1.0]hexane-3-carboxylic acid	3-Nitro-2-oxopropanoic acid	2-Chloro-3,3,3-trifluoropropanoic acid	3-Methoxybut-3-enoic acid
3-Methyl-1,2-thiazole-5-carboxylic acid	2-(Chlorosulfonylamino)acetic acid	2-Bromo-3,3,3-trifluoropropanoic acid	Cyclohexa-2,5-dien-1-yl hydrogen carbonate
Bicyclo[3.1.0]hex-2-ene-6-carboxylic acid	1,3-Oxathiolane-2-carboxylic acid	(S)-2-Fluorocaproic acid	4-Chloro-2-methylpenta-2,4-dienoic acid
2-Hydroxyisonicotinic acid	4,4-Difluoropentanoic acid	1-Chlorocyclohexanecarboxylic acid	Cyclopropylsulfanylformic acid
2-(Methoxycarbonyl)cyclobutanecarboxylic acid	3-Methoxy-3-methylbutanoic acid	2-Acetylactic acid	1,3-Dioxan-5-yl hydrogen carbonate

Bicyclo[4.1.0]hept-3-ene-7-carboxylic acid	3-Ethenoxy-2-methylidenebutanoic acid	2-Hydroxy-acetoacetic acid	3-Methoxy-2-sulfanylpropanoic acid
5-Methoxypentanoic Acid	(E)-3,5-Difluoro-2-methylidenepent-4-enoic acid	3,4-Dihydro-2H-pyran-5-carboxylic acid	2-Azabicyclo[2.2.0]hexa-1(6),2,4-triene-6-carboxylic acid
Cyclohept-3-ene-1-carboxylic acid	4,5-Difluoro-2-methylidenepentanoic acid	(2S)-2-Fluoro-2-methylhexanoic acid	(Carbamoylamino) hydrogen carbonate
5-Oxo-2H-furan-3-carboxylic acid	3,4,4-Trifluoro-2-methylidenebutanoic acid	1-(Propan-2-yl)cyclopropane-1-carboxylic acid	3,6-Dihydro-2H-pyran-6-carboxylic acid
Bicyclo[4.1.0]heptane-7-carboxylic acid	3-Fluoro-2-methylidenebutanoic acid	[1,1'-Bi(cyclopropane)]-1-carboxylic acid	2-(Azidomethyl)-1-chlorocyclopropane-1-carboxylic acid
2-Acetamido-2-sulfanylpropanoic acid	(Z)-3,4,5-Trifluoro-2-methylidenepent-4-enoic acid	5-Methyl-3,5-hexadienoic acid	2-[Tris(sulfanyl)methyl]prop-2-enoic acid
4-(Methylamino)-4-oxobutanoic acid	Bicyclo[2.2.1]hept-3-ene-2-carboxylic acid	2-[(2-Methylpropan-2-yl)oxyamino]propanoic acid	Carbonothioic acid, S-(2-furanyl) ester
Cyclohept-4-enecarboxylic acid	2,2,3,4,4,4-Hexafluorobutyric acid	(Carboxymethyl)diethylsulfonium	5-Methyl-6H-1,3-thiazine-4-carboxylic acid
3-Methyl-4-oxopent-2-enoic acid	2-Formyloxyethanesulfonic acid	2-Sulfanylhexanoic acid	2-Fluorooxyacetic acid
1,3-Cyclopentadiene-1-carboxylic acid, 4-methyl-	7-Thiabicyclo[2.2.1]hept-5-ene-2-carboxylic acid	(Z)-2,3-Difluoropropenoic acid	2,5-Dioxopent-4-enoic acid
Bicyclo[2.1.0]pent-2-ene-5-carboxylic acid	4-Cyanobutanoate	N-Chloro-L-alanine	Thiophen-2-ylsulfanylformic acid
1,4-Cyclohexadiene-1-carboxylic acid	2-(1-Hydroxyethoxy)acetic acid	2-Chloroaminopropionic acid	3,3-Dichloro-5-hydroxypentanoic acid
2-Cyclopentylideneacetic Acid	3-Mercapto-4-methyl-valeric acid	3-Cyanopropylphosphonic acid	2-(3-Methyl-4H-triazol-2-yl)acetic acid
4-Oxepincarboxylic acid	3-Methyl-4-sulfanylbutanoic acid	3,4-Hexadienoic acid	5-Fluoro-2,4-dioxopentanoic acid
2-Methyl-1,3-dioxolane-2-carboxylic acid	Prop-1-ynyl hydrogen carbonate	2-(3-Hydroxyureido)acetic acid	5-Fluoro-5-oxopentanoic acid
3-Methyloxazinan-6-carboxylic acid	Chloroethyl carbonate	1-Methylcyclopenta-2,4-diene-1-carboxylic acid	2-Thiophosphorosoxyacetic acid
3-Methoxy-2-methyl-3-oxopropanoic acid	2-Chloroethyl hydrogen carbonate	2,2,2-Trifluoroethyl nitrate	2-(Ethoxyamino)prop-2-enoic acid
S-(N,N-Dimethylthiocarbamoyl)thioglycolic Acid	6-Fluoro-2-oxobicyclo[3.1.0]hexane-6-carboxylic acid	3,3-Difluorocyclobutanecarboxylic acid	1-Chloroprop-2-enyl hydrogen carbonate
3-Chloro-2-fluorobenzoic acid	2-Carbonochlorido-1-cyclopropanecarboxylic acid	2-Fluoro-2-nitroacetic acid methyl ester	2-Prop-2-enyloxyprop-2-enoic acid
3-(Dimethylamino)prop-2-enoic acid	3-Hydroxycyclobutanecarboxylic acid	2-Methyl-5-oxovaleric acid	4-Formamidobut-2-enoic acid
1,3-Dithiane-2-carboxylic acid	3-Hydroxypyridine sulfate	2,3-Dimethyl-5-oxopentanoic acid	2-Bromo-3-methylbut-3-enoic acid
2-Propenoic acid, 3-thiocyanato-, (Z)-	(5-Chlorooxolan-2-yl)phosphonic acid	2,3-Difluoropropanoic acid	2-Ethenylsulfanylacetic acid
4,5-Dichlorothiophene-2-carboxylic acid	5-Methyloxazole-2-carboxylic acid	3-Chloro-2-fluoropropanoic acid	2-Methoxycarbonyliminopropanoic acid
2-(Acetylamino)butanoic acid	2-(Dimethylamino)propanoate	1-Hydroxypyrazole-4-carboxylic acid	4-Cyano-2-methylbut-2-enoic acid
3-(Dichloroamino)propanoic acid	Fluoro-beta-alanine	Thiopropionylmercapto-acetic acid	3-Oxo-2,2-bis(sulfanyl)butanoic acid
4-Methylsulfanylbutanoic acid	2,3-Difluorobutanedioic acid	3-Azidobutyric acid	2-Bromo-1-chlorocyclopropane-1-carboxylic acid
2-Bromobut-2-enedioic acid	2-[Acetyl(methyl)amino]acetate	2-Bromo-3-chloro-succinic acid	(2S)-3-Nitrobutan-2-ol
2-Chloro-3-methylbutanoic acid	2-Nitrosoprop-2-enoic acid	Thiomaleinsäure	2-[Bis(phosphanylmethyl)amino]acetic acid
2-[Methyl(nitroso)amino]propanoic acid	4,5-Dihydro-1,2-oxazole-5-carboxylic acid	2-Chloro-3,3-difluorobutanoic acid	3-Imino-2-methylidenebutanoic acid

4-Bromo-3-methylbut-2-enoic acid	2-Carboxyoxopropanoic acid	3-Chlorocyclobutanecarboxylic acid	2-(Prop-1-en-2-ylamino)oxypropanoic acid
2-Bromocyclopropanecarboxylic acid	2-(Cyanomethylimino)acetic acid	(Z)-3-Chloro-4,4,4-trifluorobut-2-enoic acid	2-(Prop-1-en-2-ylamino)oxyacetic acid
2-Pentynoic acid	3-Diazopropanoic acid	4-Chloro-4-oxobutanoic acid	2-Methylsulfanyloxyethyl hydrogen carbonate
2-Hexynoic acid	1,4,5,6-Tetrahydropyridazine-6-carboxylic acid	(2E)-2-Methyl-4-oxo-2-pentenoic acid	4,4-Bis(sulfanyl)pentanoic acid
3-Bromoisoxazole-5-carboxylic acid	4-Amino-3-methoxybutanoic acid	(E)-2-Fluoro-4-methyl-2-pentenoic acid	2-Ethylidenecyclopropane-1-carboxylic acid
Erythro-beta-Fluoroasparagine	2-Hydroxy-2-prop-2-enoyloxyacetic acid	1-(Methoxycarbonyl)cyclopropanecarboxylic acid	2-(Oxolan-3-yl)-2-sulfanylacetic acid
2-Amino-3-fluoro-4-methoxy-4-oxobutanoic acid	1,3,2-Diazaphospholidine-2-carboxylic acid	(Cyclopent-3-en-1-yl)acetic acid	2-Dimethylphosphanylpropanoic acid
[Acetyl(methyl)amino]methanesulfonate	5-Oxo-4,5-dihydro-1H-imidazole-2-carboxylic acid	4,5-Dimethylfuran-3-carboxylic acid	Carbonobromidoethyl hydrogen carbonate
3-Ethoxybut-2-enoic acid	2,2,3,3,4-Pentafluorobutanoic acid	2-Chloro-3-fluoro-4-nitropyridine	2-Oxo-4-(mercaptomethyl)butanoic acid
3-Ethoxy-acrylic acid	3-Ethenoxypropanoate	3-Methoxy-2,2-dimethyl-3-oxopropanoic acid	4-Phosphanylpentanoic acid
2-Fluoroisonicotinic acid	4-Mercapto-hexanoic acid	(2E)-2-Methoxyiminopropanoic acid	4-Chloro-3,3-dimethylpentanoic acid
2-(Formyloxy)propanoic acid	N-Propionylalanine	4-Methoxy-3-methyl-4-oxobutanoic acid	2-(Carboxyoxamino)acetic acid
Propanoic acid, 2-[(chloroacetyl)oxy]-	(2S)-2-Thionitrosopropanoic acid	2-Carbamoyl-2,2-dimethylacetic acid	2-Sulfanyloxypropanoic acid
2-Propanoyloxypropanoic acid	Fluoroalanine	3,3-Difluoro-4-methoxy-4-oxobutanoic acid	4-(Dimethylaminosulfanyl)butanoic acid
2-(Acetyloxy)-2-methylpropanoic acid	(3R)-3-(Dimethylamino)butanoic acid	3-Diazoniobenzoate	2-[Bis(sulfanyl)amino]acetic acid
2-(Thiazol-5-yl)acetic acid	4-Methyl-5-oxo-L-proline	2-Fluoromaleic acid	2-(2,5-Dihydropyridin-3-yl)acetic acid
2-Methyl-3-oxocyclopentane-1-carboxylic acid	(1R,2S)-2-(2-Bromoethyl)cyclopropane-1-carboxylic acid	alpha-Iodofumaric acid	4-Nitrosopentanoic acid
3-Carbamoylcyclopentane-1-carboxylic acid	(2S)-2-Nitrosopentanedioic acid	2-Acetylactate	3-[(2R)-3-Oxothiolan-2-yl]propanoic acid
1H-Triazirine-1-acetic acid	N-Methacryloylalanine	(2S)-2-Hydroxy-2-methyl-3-oxobutanoate	4-Amino-3-methyl-4-oxobut-2-enoic acid
2-[Amino(ethyl)amino]propanoic acid	4-Amino-3-methylisothiazole-5-carboxylic acid	(2S,4R)-2-Amino-4-hydroxypentanoic acid	4-[Methoxy(methyl)amino]but-2-enoic acid
4-Hydroxybut-2-ynoic acid	(2R)-2-Methyl-3-sulfanylpropanoate	2-Methoxybut-3-enoic acid	5,5-Difluoro-2-methylpent-2-enoic acid
3-Methylene-cyclopropane-1,2-dicarboxylic acid	3-Trimethylsilyl-propionate-2,2,3,3,-D4	2-Ethoxybut-3-enoic acid	3-(Methylaminosulfanyl)propanoic acid
2,3-Difluorobenzoic acid	(2S)-2-(Sulfinylamino)propanoic acid	(4S)-4-Amino-2-pentenoic acid	Thiophen-3-yl hydrogen carbonate
1-(Dimethylamino)cyclopropanecarboxylic acid	[(2R)-1-Cyanopropan-2-yl]carbamic acid	3,8-Dioxatricyclo[3.2.1.0 ^{2,4}]octane-6-carboxylic acid	5-Imino-4-oxopentanoic acid
1-(Trimethylammonio)cyclopropanecarboxylate	(2-Dimethylphosphoryl)acetyl)oxidanion	2-(2-Oxoxolan-3-yl)acetic acid	1,4-Dithiine-2-carboxylic acid
3-Sulfopropanoic acid	Carboxymethyl-methyl-sulfanylidene phosphonium	(E)-5-Oxohex-3-enoic acid	3-(Oxiran-2-yl)prop-1-ene-1-sulfonic acid
1-Propanesulfonic acid, 3-amino-3-oxo-	2,2,2-Trifluoroethyl hydrogen carbonate	2-Methylenecyclohexanecarboxylic acid	Carboxy 3-hydroxybutanoate
3-Methyl-3-butenic acid	2-Oxoethyl hydrogen carbonate	3-(Hydroxymethyl)oxirane-2-carboxylic acid	3-Nitroprop-1-en-1-one
2-Carbamoyl-2,2-difluoroacetic acid	Oxetan-3-yl hydrogen carbonate	2-(Formamido)acrylic acid	3-Chloro-5-sulfanylpentanoic acid

2-Butenoic acid, 4-(dimethylamino)-4-oxo-, (2Z)-	2-Formyloxyacetic acid	(2Z)-2-Chloropenta-2,4-dienoic acid	(2S)-2-(2-Aminohydrazinyl)propanoic acid
4-Methoxypentanoic acid	4-Formyloxybutanoic acid	1-Acetylcyclopropanecarboxylic acid	5,5-Dichloropent-2-enoic acid
2-Sulfopropanoic acid	4-Nitroso-4-oxobutanoic acid	5-Methylcyclohexa-1,5-diene-1-carboxylic acid	(2S,3S)-3-Fluoro-2-methylbutanoic acid
1-Methoxy-1-oxo-2-propanesulfonic acid	3-Methoxycyclobutanecarboxylic acid	(Z)-3-Chloro-2-fluoroprop-2-enoic acid	4-Chlorobut-3-enoic acid
Tetrahydrothiophene-3-carboxylic acid 1,1-dioxide	2,3,3-Trifluorooxirane-2-carboxylic acid	Difluoromethylthio acetic acid	4-Bromo-4-fluorobutanoic acid
3-Oxo-butane-1-sulfonic acid	Propanedioic acid, 2-methyl-, 1-methyl ester	(Z)-3-(Methylthio)acrylic acid	2-Chloro-2-(oxiran-2-yl)acetic acid
2-Nitramidopropanoic Acid	2-Methyl-1,3-dioxolane-4-carboxylic acid	3-(3-Methyl-3H-diazirin-3-yl)propanoic acid	3H-Pyridin-1-ium-4-ylmethanesulfonic acid
((2-Oxopropylidene)amino)acetic acid	1H-Imidazole-1-acetic acid, 2,3-dihydro-2-thioxo-	2-Chloro-3-methoxypropionic Acid	2-Nitrosobut-2-enedioic acid
3-Nitroprop-2-enoic acid	2-Methanethioylsulfanylacetic acid	2-Methoxycyclopropanecarboxylic acid	2-Ethyl-4-oxobut-2-enoic acid
D-Pyrogutamic acid	(2R)-2-Bromo-5-sulfanylidene-pentanoic acid	2-Acetyloxyethanethioic S-acid	3-Oxobut-1-enylphosphonic acid
2-Oxosuccinamic acid	(2S)-2-Bromo-5-sulfanylidene-pentanoic acid	4-Ethoxy-4-oxobut-2-ynoic acid	Azetidin-1-ylsulfanylformic acid
5-Oxopentanoic acid	4-Oxopentane-2-sulfonic acid	1,2,2-Trichlorocyclopropane-1-carboxylic acid	3-Fluoro-2-oxopropane-1-sulfonic acid
2-Amino-4-oxopentanoate	2-[Dimethylcarbamoyl(hydroxy)amino]acetic acid	(E)-4-Sulfanylbut-2-enoic acid	(2E)-Hexa-2,4-dienoic acid
3,4-Dihydro-2H-pyrrole-5-carboxylic acid	3-[Acetyl(hydroxy)amino]propanoic acid	1-Acetoxycyclopropanecarboxylic acid	5,5,5-Trifluoropent-2-enoic acid
1,2-Propanediol, 1-phosphate	2-(2-Methyloxolan-3-yl)acetic acid	4-Chloropentanoic acid	4-Oxo-4-sulfanylbut-2-enoic acid
3-Sulfanyl-2-(sulfanylmethyl)propanoic acid	(4H-Pyran-4-ylidene)acetic acid	Methyl(2,2,2-trifluoroethyl)sulfamic acid	4-Chloro-3-hydroxy-2-oxobutanoic acid
4-Oxoglutaramate	Tetrahydro-2H-pyran-3-ylacetic acid	4-Methoxy-4-oxobut-2-ynoic acid	3-Chloro-2-sulfanylpropanoic acid
2-Amino-4-cyanobutanoic acid	N-Ethylidene-glycine	2-[(Methoxycarbonyl)(methyl)amino]acetic acid	2-[Carbamoyl(sulfanyl)amino]acetic acid
(2S)-2-Hydroxy-2-methyl-3-oxobutanoic acid	Carboxymethoxymethylideneoxidanum	2-Cyanoethyl dihydrogen phosphite	4,5-Bis(sulfanyl)pentanoic acid
6-Oxohexanoic acid	(2Z)-4-Hydroxypenta-2,4-dienoic acid	1-Chloro-1-fluoro-1-nitropropan-2-one	2-[Bis(sulfanyl)methyl]prop-2-enoic acid
beta-Alanine betaine	1-Dimethylphosphoryl-1-nitroethane	2,3,3-Trichloro-2,3-difluoropropanoic acid	2-(2,5-Dihydro-1,2-oxazol-5-yl)acetic acid
2-Tetrahydrothiopheneacetic acid	2-Trimethylsilyloxypropanoic acid	2,3-Dichloro-2,3,3-trifluoropropanoic acid	2-Isocyanato-2,2-bis(sulfanyl)acetic acid
Tetrahydrothiophene-2-carboxylic acid	2-(4-Chloropyrimidin-5-yl)acetic acid	2-Bromo-3-chloro-2,3,3-trifluoropropanoic acid	2-(2,5-Dihydro-1,2-oxazol-3-yl)acetic acid
5-N-Methyloxaluric acid	4-Formyloxy-4-oxobutanoic acid	3-Bromo-2-chloro-2,3,3-trifluoropropanoic acid	3-Ethylsulfonylprop-2-enoic acid
Maleic acid	5-Fluoro-4-hydroxypentanoic acid	2,2,3-Trichloro-3,3-difluoropropanoic acid	2-(3H-Pyridin-1-ium-5-yl)acetic acid
Fumaric acid	2,2,3,3-Tetrafluoro-4-fluoroxy-4-oxobutanoic acid	2,3,3-Trichloro-2-fluoropropanoic acid	1-Chloro-2-methylcyclopropane-1-carboxylic acid
2,3-Dihydrobenzoic acid	2-Bromo-2-fluoropropanedioic acid	2-Bromo-2,3-dichloro-3-fluoropropanoic acid	(2-Methylthiophen-3-yl)hydrogen carbonate
3-Oxiran-2-ylalanine	(2E)-2,4-Dimethylpenta-2,4-dienoic acid	2,3,3-Trichloro-3-fluoropropanoic acid	3-Methyl-2,3-bis(sulfanyl)butanoic acid
(3R)-3-Hydroxy-3-methyl-5-oxopentanoic acid	2-Methylimidazole-2-carboxylic acid	3-Bromo-2-chloro-2-fluoropropanoic acid	(3-Oxopyrazolidin-1-yl)hydrogen carbonate

(2R)-2-(Propanoylamino)propanoic acid	2,2,4-Trifluoro-3-oxobutanoic acid	2,3-Dichloro-3,3-difluoro-2-methylpropanoic acid	5-Fluoro-5-hydroxypentanoic acid
Thiophosphonoformic acid	(Z)-3-Chloro-2-methylbut-2-enoic acid	5-Oxo-4,5-dihydrofuran-3-carboxylic acid	Methyl N-phosphonooxycarbamate
N-(Methoxycarbonyl)glycine	alpha,beta-Dichloropropionate	Fluoroglycine	Phosphorosoxyethylphosphonic acid
Fluoro(phosphono)acetic acid	2-Prop-2-enoyloxyacetate	3,3,3-Trichloropropanoic acid	5-Fluoro-2-methylpent-2-enoic acid
2-Dihydroxyphosphinothioylacetic acid	2-[Tert-butyl(chloro)amino]acetic acid	5-Thioxo-L-proline	2,5-Dihydropyridine-4-carboxylic acid
3-Mercapto-valeric acid	1-Chloro-piperidine-4-carboxylic acid	4-Methylpentanoic acid-1-13C	4-Diazenylbutanoic acid
2-[Hydroxy(methyl)phosphoryl]acetic acid	4-Nitrooxy-4-oxobutanoic acid	4-Hydroxy-2-methyl-valeric acid	4-Methyl-2-oxo-4-pentenoic acid
Isopropoxyacetic acid	3-Aminoxybutanoic acid	N-(Cyanomethyl)glycine	3,3-Difluoro-2-sulfanylpropanoic acid
2-Iodoacetate	2-Hydroxypropyl hydrogen carbonate	3-Amino-2-methylpyridine-4-carboxylic acid	(2-Amino-1-chloro-2-oxoethyl) hydrogen carbonate
3,4-Dichloro-2,2,3,4,4-pentafluorobutanoic acid	2-(6-Oxabicyclo[3.1.1]heptan-2-yl)acetic acid	2-(2,2-Difluorocyclopropyl)acetic acid	5-Aminooxypent-2-enoic acid
Butanedioic acid, ethyl methyl ester	1-((Dimethylamino)methyl)cyclopropanecarboxylic acid	3-(Difluoromethyl)benzoic acid	4-Formyloxy-4-oxo-2-sulfanylbutanoic acid
Peroxynitric acid, dichlorofluoromethyl ester	2-Fluoro-5-oxoxolane-2-carboxylic acid	3-(Oxiran-2-yl)propanoic acid	(2R)-2-Amino-2-methyl-3-oxobutanoic acid
3-Formamidopropanoic acid	2-(3,4-Dihydropyridin-3-yl)acetic acid	Acetic acid, chloronitro-	5-Iodopent-4-enoic acid
2,3-Dichlorobutanoic acid	2-Ethylcycloprop-2-ene-1-carboxylic acid	2-(Hydroxymethyl)-2-methylcyclopropane-1-carboxylic acid	1-Amino-2-(2-oxoethyl)cyclopropane-1-carboxylic acid
4-Hydroxy-2-methylpent-2-enoic acid	4,5-Dihydro-1,3-thiazole-5-carboxylic acid	2-Iodoisonicotinic acid	4-Bromo-4-chlorobutanoic acid
1,2-Dimethylcyclopropanecarboxylic acid	3,3,4-Trifluorobutanoic acid	1-Methylcyclopent-3-enecarboxylic acid	(4S)-4-Hydroxy-3-methyl-2-oxopentanoic acid
3-Methoxymethoxybutyric acid	Poly(lactic acid-co-glycolic acid)	5-Methoxyhexanoic acid	2-(Sulfanylmethyl)prop-2-enoic acid
(Isopropylthio)acetic acid	2-(Oxetan-2-ylmethyl)prop-2-enoic acid	(2R)-2-Hydroxy-4-oxopentanoic acid	(2S)-1-Chloro-4-oxopyrrolidine-2-carboxylic acid
3-Methoxy-3-oxopropanoic acid	2-[Tert-butyl(chloro)amino]propanoic acid	4-Methoxy-2-methylbutanoic acid	2,2-Dichloro-2-(2-chloroacetyl)oxyacetic acid
4-Oxopentanethioic acid	5,5-Difluoro-2-methylidenepentanoic acid	5-Methylcyclohex-3-ene-1-carboxylic acid	2-Methyl-2-(methylideneamino)propanoic acid
4-Hydroxypent-2-enoic acid	Cycloprop-2-ene-1,2-dicarboxylic acid	2-Dithiocarboxysulfanylacetic acid	(1R,2S)-2-(Carboxymethyl)-1-methylcyclopropane-1-carboxylic acid
2-Methyl-1,3-oxazole-4-carboxylic acid	2-[Aminoxy(hydroxy)phosphoryl]acetic acid	2-Nitropropanoic acid	2-Carbamoyloxysulfanylacetic acid
3-[Acetyl(methyl)amino]propanoic acid	2,4-Dioxoheptanoic acid	2-Bromo-3-methoxypropanoic acid	Pyridin-3-ylsulfanylformic acid
3-(Carboxymethyl)-1,2,3-oxadiazol-3-ium-5-olate	(E)-4,5-Dioxohex-2-enoic acid	Fumaraldehydic acid dimethyl acetal	2-Chloro-4-iodobutanoic acid
3-Methyloxirane-2-carboxylic acid	Acetamidoglycine	Methyl 2-nitrooxypropanoate	3-(Dimethylaminosulfanyl)propanoic acid
2-Chloro-3-hydroxy-butyric acid	2-Methyl-3-oxiranylpropionic acid	3,4-Dichlorobutanoic acid	(Carbamothioylamino) hydrogen carbonate
2-(Methoxymethoxy)propanoic acid	3-Hydroxybutyl hydrogen carbonate	(Z)-2-Fluoro-4,4-dimethylpent-2-enoic acid	Ethyl-fluoro-methyl-(2-sulfoethyl)azanium

Methyl 2-nitropropanoate	3-Chlorooxy-3-oxopropanoic acid	3-Methylcyclobutene-1-carboxylic acid	Thiocyanatooxymethanedithioic acid
Methyl 3-nitropropanoate	Cycloheptyl hydrogen carbonate	2,2-Difluoro-1-methylcyclopropanecarboxylic acid	Hydroperoxyperoxyperoxy hydrogen carbonate
1-Cyclopenteneacetic acid, 5-oxo-	2-Chloro-2-methylsulfanylacetic acid	(3-Carboxy-3-oxopropyl)(hydroxy)oxophosphonium	Nitrooxymethanesulfonic acid
4-Oxotetrahydro-2H-pyran-2-carboxylic acid	3,4,4-Trichlorobutanoic acid	2-Chloro-2-fluoro-1-methylcyclopropane-1-carboxylic acid	Carboxyoxycarbonyl formate
5-Hydroxyhex-2-enoic acid	(2,2-Dimethylcyclopropyl) hydrogen carbonate	2-Bromo-2-fluoro-1-methylcyclopropane-1-carboxylic acid	2-[1,2-Bis(sulfanyl)ethylsulfanyl]acetic acid
(2-Methyl-1,3-dioxolan-2-yl)acetic acid	3-Formyl-2-methylidenepentanoic acid	2-Fluoro-1-methylcyclopropane-1-carboxylic acid	2-(2-Hydroxyethylimino)acetic acid
1,2-Dithiane-3-carboxylic acid	Cyclobutylmethyl hydrogen carbonate	2-Azidopropionic acid	2-Methylidene-4-phosphanyloxybutanoic acid
1,4-Dihydro-2-methylbenzoic acid	4-Hydroxy-3-methyl-2-sulfanylbutanoic acid	(R)-2-Azidopropanoic acid	(3R)-2-Amino-3-methoxybutanoic acid
2-Chlorohexanoic acid	4-Hydroxy-2-sulfanylpentanoic acid	2-Amino-3-methanesulfonylpropanoic acid	2,4-Difluoro-4-oxobut-2-enoic acid
2-Chloro-3-hydroxypropionic acid	2-(Oxiran-2-yl)propanoic acid	2-Acetoxymethyl-acrylic acid	5-Hydroxy-3-sulfanylpentanoic acid
1,2-Dimethyl-cyclopent-2-enecarboxylic acid	2-Oxobutane-1-sulfonic acid	2-(Formyloxymethyl)prop-2-enoic acid	4-Oxopent-2-ynoic acid
2-Methylidenecyclopropane-1-carboxylic acid	(5-Oxoxolan-2-yl) hydrogen carbonate	5,6-Dihydro-2H-pyran-3-carboxylic acid	3-Ethoxy-2-hydroxybutanoic acid
1-Methyl-1,2-cyclopropanedicarboxylic acid	1-Acetylaziridine-2-carboxylic acid	2-Methylcyclohex-2-ene-1-carboxylic acid	3-Formyl-4-oxobutanoic acid
6-Amino-6-oxohexanoic acid	2-Methyl-2-sulfanylpent-4-enoic acid	2-Propylcyclopropane-1-carboxylic acid	3-Methoxysulfanylbutanoic acid
4,5-Dihydrofuran-3-carboxylic acid	2-(2-Formylhydrazinyl)acetic acid	(1R,2R)-2-Propylcyclopropane-1-carboxylic acid	2-Methyl-3,3-bis(sulfanyl)propanoic acid
2-Butenoic acid, 4,4-dimethoxy-, methyl ester, (Z)-	3,3,3-Trifluoropropyl hydrogen carbonate	(E)-5-Hydroxypent-2-enoic acid	2-(2-Methylthiolan-3-yl)acetic acid
2-(Trifluoromethyl)acrylic acid	3-Methylazete-2-carboxylic acid	4-Methyl-3-furancarboxylic acid	3,3-Dichloro-2,4-dioxopentanoic acid
1,3-Dimethyl-1H-pyrazole-5-carboxylic acid	(E)-4-Fluoro-3-methylpent-2-enoic acid	2-Methylcyclopent-2-ene-1-carboxylic acid	Piperidin-1-ylsulfanylformic acid
3-Methylisothiazole-4-carboxylic acid	4-(Difluoroamino)butanoic acid	3-Bromo-3,3-difluoropropanoic acid	(R)-Methyl 2-((methylsulfonyl)oxy)propanoate
6-Methoxynicotinic acid	3-Chlorosulfanylpropanoic acid	(2E)-4-(Dimethylamino)but-2-enoic acid	2-Methylsulfanyloxyacetic acid
1-Methyl-6-oxo-1,6-dihydropyridine-3-carboxylic acid	2,2,3,4-Tetrafluorobut-3-enoic acid	4-Methylidenecyclohexane-1-carboxylic acid	2-Oxobutyl carbonate
1,2-Dithiane-4-carboxylic acid	2-Nitrooxyethyl acetate	4,4-Difluoro-3-butenic acid	4-Isothiocyanatobut-3-en-2-one
(2S)-5-Oxoxolane-2-carboxylic acid	Thietane-3-carboxylic acid	2-(2-Chloro-2-fluorocyclopropyl)acetic acid	2-Imino-1,2lambda~4~-oxathiolane-4-carboxylic acid
trans-3-Chloroacrylic acid	2-(N-Methylformamido)propanoic acid	1-Methyl-2-oxopyrrolidine-3-carboxylic acid	3-Hexenal, 2,5-dioxo-
4-Hexenoic acid	2,3-Dichloro-4-nitropyridine	(E)-3-Cyanoacrylic acid	Propanoic acid, 2-(bromoimino)-(9CI)
2,3-Dichloro-2-butenedioic acid	2-(2-Ethenylcyclopropyl)acetic acid	2-(Bicyclo[1.1.1]pentan-1-yl)acetic acid	2-Methoxyethyl(methyl)carbamate
(2R)-2-Sulfanylbutanedioic acid	5-Fluorocaproic acid	4-Methoxy-4-oxo-2-sulfanylbutoic acid	2-Methyl-4-(oxiran-2-yl)but-2-enoate
3-Cyclopropylprop-2-ynoic acid	3-Methoxybutane-2-sulfonic acid	N-Amino-N-nitronitramide	5-Methylpyridazine-4-carboxylic acid
Bromofumaric acid	Methylsulfonyl N-ethylethanimidate	(Acryloyloxy)acetic acid	(3R,4R)-4-Hydroxy-3-methylpentanoic acid

2,5-Hexadienoic acid	4-Amino-4-oxobut-2-ynoic acid	(R)-2-(Tetrahydrofuran-3-yl)acetic acid	2-Fluoro-2-methoxyacetic acid
2-Butenoic acid, 2,3-dichloro-, (2E)-	2-Methyl-4-oxo-2-sulfanylpentanoic acid	(S)-2-(Tetrahydrofuran-3-yl)acetic acid	2,2-Difluoro-2-(oxan-4-yl)acetic acid
2,3-Dichloroisocrotonic acid	4-Hydroperoxybutanoic acid	(Tetrahydrothiophen-3-yl)acetic acid	4-Amino-3-iodo-4-oxobutanoic acid
5-Bromopent-4-enoic acid	2-(4-Sulfanylthiadiazol-5-yl)acetic acid	4,5-Dichloropentanoic acid	(1-Methylcyclopentyl)hydrogen carbonate
4-Methyl-2-pentenoic acid	(Z)-4-Methoxypent-3-enoic acid	4-Methyl-5-oxo-2,5-dihydrofuran-3-carboxylic acid	Sulfanylcarbonylsulfanylformic acid
3-Isoxazolecarboxylic acid, 4,5-dihydro-	2,2-Difluoro-3,3-dimethylbutanedioic acid	(Tetrahydro-pyran-4-ylidene)-acetic acid	(Iminomethoxy)acetic acid
2-Butenoic acid, 3-chloro-, (E)-	2-Ethylsulfinyl-2-methylpropanoic acid	2-(3-Chloropropanoyloxy)acetic acid	Azidoacetate
2-Butenoic acid, 3-chloro-	2-Methylsulfinylpropanoic acid	[1,3]Dithiolan-2-yl-acetic acid	(E)-4-Methoxy-3-methylbut-2-enoic acid
1-Methyl-1H-pyrazole-5-carboxylic acid	2-Bromo-3-sulfanylpropanoic acid	3,3-Dimethyl-2-sulfanylbutanoic acid	3-Fluoro-3-oxopropanoic acid
1-Methyl-1H-pyrazole-4-carboxylic acid	4-Chloro-3-methylbutanoic acid	S-Methoxymethylmercaptoacetic acid	(E)-2-Methyl-5-sulfanylpent-2-enoic acid
5,5-Dichloro-4-oxopentanoic acid	3-Isocyanato-3-methylbutanoic acid	2-Chloro-3-methylisonicotinic acid	1-Carboxypropan-2-yl(trimethyl)azanium
Sorbic acid	Allylmethyl carbonate	3-Methoxy-2-methylidenebutanoic acid	3-(18F)Fluoranylbzenzoic acid
(Z)-2-Pentenoic acid	But-3-enyl hydrogen carbonate	(Z)-4-Chloro-2,2-dimethylbut-3-enoic acid	3-(Hydroxymethoxy)propanoic acid
(Z)-3-Iodoacrylic acid	2-Methyloxazole-5-carboxylic acid	4,4-Dichloro-2,2-dimethylbut-3-enoic acid	5-Deuterio-5-oxopentanoic acid
Nicotinic acid,[carboxyl-14C]	4-Chloro-3-methyl-1,2-thiazole-5-carboxylic acid	3-Fluoro-2,2-dimethylbutenoic acid	(1R,4R)-4-Methylcyclopent-2-ene-1-carboxylic acid
(1S,2R,4S)-Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid	Butanedioic acid, chloro-, monomethyl ester	(Z)-4-Chloro-3-fluoro-2,2-dimethylbut-3-enoic acid	(Z)-4-(Deuterioamino)-4-oxobut-2-enoic acid
(1R,2S)-Rel-Cyclopropane-1,2-dicarboxylic acid	Carboxy 2-oxoacetate	(E)-4-Fluoro-2,2-dimethylbut-3-enoic acid	2-Methyl-3-(phosphanyloxyamino)propanoic acid
2-Chloro-4-nitropyridine	(E)-3-(Hydroxymethoxy)prop-2-enoic acid	4-Thiazolecarboxylic acid, 5-mercapto-	(2R)-2-Methyl-3-(phosphanyloxyamino)propanoic acid
2,4-Dimethylthiazole-5-carboxylic acid	3-[Hydroxy(methyl)amino]propanoic acid	2-Chloro-2-fluorocyclopropanecarboxylic acid	3,4,5-Trideuteriofuran-2-carboxylic acid
3-Methylenecyclopropane-trans-1,2-dicarboxylic acid	2-[(1S,2S)-2-Ethylcyclopropyl]acetic acid	6-Amino-4-oxohexanoic acid	4-Deuteriofuran-2-carboxylic acid
(R)-Cyclohex-3-enecarboxylic acid	2-Ethyl-4-hydroperoxybutanoic acid	2-Cycloheptene-1-carboxylic acid	3,4-Dideuteriofuran-2-carboxylic acid
5-Methoxyfuran-2-carboxylic Acid	2-Chloro-2-methylsulfonylacetic acid	(2R)-3-Methoxy-2-methylpropanoic acid	1,3,3,5,5-Pentadeuterio-4-oxocyclohexane-1-carboxylic acid
(4S)-4-Methyl-5-oxohexanoic acid	3-[Formyl(methyl)amino]propanoic acid	Bromoglycine	1,2,2,3,3,5,5,6,6-Nonadeuterio-4-oxocyclohexane-1-carboxylic acid
(4R)-4-Methyl-5-oxohexanoic acid	2-(3,4-Dimethyl-1,2-oxazol-5-yl)acetic acid	Propanedioic acid, 2-fluoro-, 1-methyl ester	2,2-Dideuterio-4-methylpentanoic acid
3-Dimethylphosphorylpropanoic acid	3-Iminobutanoic acid	2-(2-Methylthiolan-2-yl)acetic acid	4-Methylpentanoic-D11 acid
4-Methylene-5-oxo-4,5-dihydrofuran-3-carboxylic acid	(Carboxymethylamino)-hydroxy-oxophosphonium	Aziridine-2,3-dicarboxylic acid monoethyl ester	3,3,4,5,5,5-Hexadeuterio-4-(trideuteriomethyl)pentanoic acid
2-(Furan-3-yl)acetic acid	2H-Pyrrole-5-carboxylic acid	4-Sulfanylpentanoic acid	5-Bromo-5,5-dideuteriopentanoic acid
4,5-Dimethylthiophene-3-carboxylic acid	4-Hydroxy-4-methylpentanoic acid	2-Chloro-3-(methylsulfonyl)propanoic acid	5-Bromopentanoic-3,3,4,4-D4 acid
5-Chlorothiophene-3-carboxylic acid	(2E)-2-Cyano-2-hydroxyiminoacetic acid	2-(2-Sulfanylethoxy)acetic acid	5-Bromo-2,2,3,3,4,4,5,5-octadeuteriopentanoic acid

4-Fluorothiophene-3-carboxylic acid	trans-3-Hydroxycyclohexanecarboxylic acid	Dicarbonate	5-Bromo-2,2-dideuteriopentanoic acid
5-Fluorothiophene-3-carboxylic Acid	(1S,2S)-2-Acetylcyclopropane-1-carboxylic acid	3,4,4-Trifluoro-3-butenic acid	3,3-Dideuterio-3-sulfanylpropanoic acid
2-Butenoic acid, 3-methoxy-, (2E)-	(1S,2S)-1,2-Dimethylcyclopropane-1-carboxylic acid	2-(1,3,4-Thiadiazol-2-yl)acetic acid	2,2,3,3-Tetradeuterio-3-sulfanylpropanoic acid
(Z)-3-Methoxybut-2-enoic acid	(Carbamoylsulfanyl)acetic acid	(1R,2S)-2-Acetylcyclopropane-1-carboxylic acid	2,2-Dideuterio-3-sulfanylpropanoic acid
2-Sulfanylisonicotinic acid	2-(Trifluoromethylsulfanyl)acetic acid	2-Ethoxypropanoic acid	4,4-Dideuterio-3-methyl(412C, 1,2,3-13C3)but-3-enoic acid
2-Methoxyisonicotinic acid	4,4,5,5,5-Pentafluoropentanoic acid	Bromoalanine	2,2,3,3,4-Pentafluorobutanoate
3-Ethyl-1-Methyl-1H-Pyrazole-5-Carboxylic Acid	Bicyclo[2.1.0]pentane-1-carboxylic acid	N-Chloro-N-methylglycine	1-Acetyl-1-methylaziridin-1-ium-2-sulfonate
3-Chloropicolinic acid	Methyl 2-nitrooxyacetate	(2S)-2-(Chloroamino)-3-hydroxypropanoic acid	1-Acetylaziridine-2-sulfonate
3,3-Dimethyl-4-oxopentanoic acid	1,3-Dimethyl-2-oxo-2,3-dihydro-1H-imidazole-4-carboxylic acid	N-Chloroglycylglycine	2-Ethanethiolsulfanylpropanoic acid
(1R,6S)-Bicyclo[4.1.0]heptane-7-carboxylic acid	2,2,4-Trichlorobutanoic acid	2-Carboxyethyl-methoxy-oxophosphonium	4-Cyano-2-oxobutanoic acid
3-Methylisoxazole-5-carboxylic acid	Chloriodoacetic Acid	2-[(E)-Hydrazinylidenemethyl]-methylamino]acetic acid	(S)-2-Azidopropanoic acid
3-Cyclopentene-1-carboxylic acid	2,2,5,5,5-Pentafluoropentanoic acid	4-Methoxycrotonic acid	2,5-Dimethyl-4-oxohexanoic acid
(S)-3-Oxocyclopentanecarboxylic acid	2H-1,2,3-Triazole-2-acetic acid	4,4,4-Trifluoro-3-sulfanylbutanoic acid	(1S,3R)-3-Methylcyclohexane-1-carboxylic acid
(R)-3-Oxocyclopentanecarboxylic acid	2-Fluoranylpropanoate	4-Fluoro-3-methylthiophene-2-carboxylic acid	(3S)-2,3-Dihydroxybutanoic acid
(1R,2R,4S)-Bicyclo[2.2.1]heptane-2-carboxylic acid	2H-Pyrrole-2-carboxylic acid	2-(Trihydroxysilyl)ethane-1-sulfonic acid	N-(2-Oxopropyl)carbamate
(4-Methyl-furazan-3-yl)-acetic acid	4,4,4-Trifluorobutyl hydrogen carbonate	4-(Aminooxy)butyric acid	2-Oxopropylcarbamic acid
1,5-Dimethyl-1H-1,2,3-triazole-4-carboxylic acid	4-Fluorocyclohex-3-ene-1-carboxylic acid	(2S)-2-(Nitrosocarbamoylamino)propanoic acid	2-Methoxy-3-nitroprop-1-ene
1,5-Dimethyl-1H-pyrazole-4-carboxylic acid	(E)-6-Oxohex-2-enoic acid	3-Acetyloxirane-2-carboxylic acid	4-Hydroxy-3-sulfanylpent-4-enoic acid
1,3-Dimethyl-1H-pyrazole-4-carboxylic acid	(E)-5-Oxopent-2-enoic acid	3-Bromo-but-3-enoic acid	2-Phosphanyloxyprop-2-enoic acid
3-(Carbamothioylsulfanyl)propanoic acid	4-Oxobut-3-enoic acid	2-(Acetyloxyamino)acetic acid	Ethoxy(difluoro)methanesulfonate
4-Methyl-1,2,3-thiadiazole-5-carboxylic acid	3,3-Difluoro-1-methylcyclobutanecarboxylic acid	[Hydroxy(ethyl)phosphinyl]acetic acid	3-Methoxysulfonothioylpropanoic acid
2-[(2S)-Oxan-2-yl]acetic acid	3-Chloro-1,3-dimethylcyclobutanecarboxylic acid	2-(2-Oxoethoxy)acetic acid	2-Chloro-3H-pyrrole-5-carboxylic acid
(6-Oxopyridazin-1(6h)-yl)acetic acid	N-[(Oxiran-2-yl)methyl]glycine	Carboxy hydroxy carbonate	Tritio 3-methylsulfanylpropanoate
5-Methylisoxazole-4-carboxylic acid	4-Fluoro-2-methylbutanoic acid	4-Nitropentan-2-one	Tritio 3-sulfanylpropanoate
5-Methoxyoxazole-2-carboxylic acid	5-Thiazolecarboxylic acid, 2,3-dihydro-3,4-dimethyl-2-oxo-	4-Nitro-2-hexanone	3-(Trioxidanylsulfanyl)propanoic acid
2-Chloro-1,3-thiazole-5-carboxylic Acid	2-Bromo-3-cyclopropylpropanoic acid	Isocyanoacetic acid	Ethoxymethanesulfonate
L-Cyclopropylglycine	2-(Chloromethyldisulfanyl)acetic acid	2-Cyclopropylideneacetic acid	2-Acetyloxyethanesulfonate

2-Cyclobutylacetic Acid	2,2,4,4-Tetrachlorobutanoic acid	5-Oxotetrahydrothiophene-2-carboxylic acid	2-Acetyloxy-1,1-difluoroethanesulfonic acid
2-[(1S,2S)-2-Methylcyclopentyl]acetic acid	2,2-Difluoro-3-oxobutanoic acid	6-Oxotetrahydro-2H-thiopyran-2-carboxylic acid	2,2-Difluoro-3-fluorooxypropanoate
2-[(1R,2S)-2-Methylcyclopentyl]acetic acid	3-Carbonoperoxoylbut-3-enoic acid	2-(Aminooxy)ethanesulfonic acid	(1R)-3-Methylcyclohexane-1-carboxylic acid
3-(Hydroxyphosphinyl)propionic acid	3-Dimethylaminopropionate	4-Methylenetetrahydrofuran-3-acetic acid	(1S,2R)-2-Ethylcyclopropane-1-carboxylic acid
N-Carbamoyl-Alanine	1,2-Dioxine-4-carboxylic acid	(S)-2-Hydroxy-4,4-difluorobutanoic acid	(1S,2S)-2-Ethenylcyclopropane-1-carboxylic acid
Sorbate	2-(2,5-Dihydropyrrol-1-yl)acetic acid	4-Bromo-4,4,3,3-tetrafluorobutanoic acid	[2-(Methylamino)-2-oxoethyl] carbonate
(2E,4Z)-2,4-Hexadienoic acid	4-Phosphorosooxybutanoic acid	2,2-Dimethyl-4-oxopentanoic acid	2-(2-Aminohydrazinyl)acetic acid
N-Acetylglycinate	Ethoxycarbothioylsulfanylmethanesulfonate	(R)-2-Chloro-3-methylbutyric acid	3-Methyl-1,1-dioxothietane-3-carboxylic acid
Cyanoacetate	4,4-Difluoro-4-sulfanylbut-2-ynoate	Nitromethyl acetate	(1R,2R)-2-Methoxycarbonyl-1-methylcyclopropane-1-carboxylic acid
(1S,6R)-Bicyclo[4.1.0]hept-3-ene-7-carboxylic acid	4-Oxo-4-sulfanylbut-2-ynoate	3-Fluorobutyric acid	(Z)-2-Azaniumyl-3,4-dideuterio-5-(dideuterioamino)-5-oxopent-3-enoate
Glycyl-L-alanine	4-Oxo-4-sulfanylbut-2-ynoic acid	2-(1-Methylcyclopropyl)acetic acid	2-Fluoro-2-oxidoperoxysulfanylpropanoic acid
1,3,5-Trithiane-2-carboxylic Acid	(Z)-3-Methyl-4-oxopent-2-enoate	2-Methoxy-2,3,3-trimethylcyclopropane-1-carboxylic acid	2-(Difluoromethoxy)acetate
Mono-Ethyl succinate	(2S)-2-[(2-Methylpropan-2-yl)oxy]propanoic acid	3-Iodo-2,2,3,3-tetrafluoropropanoic acid	5-Thiazolecarboxylic acid, 2,3-dihydro-2-thioxo-
(E)-3-Methoxy-2-butenic acid	2-Fluoro-2,3-dimethylbutanedioic acid	2,2,3,3-Tetrachloropropanoic acid	3-(Fluoroamino)-4-(methylamino)-4-oxobutanoic acid
2,2,3,3,4,4-Hexafluorobutanoic Acid	[2-(Methoxymethoxy)acetyl]oxidanium	2-Chloro-2-fluoropropanedioic acid	1-Deuteriocyclohexane-1-carboxylic acid
Isoxazole-5-carboxylic acid	2-Methylsulfinyloxyacetate	3-Oxobutylphosphonic acid	2-Methanethioylsulfanyl-2-methylpropanoic acid
Methyl 2-phosphonatoacetate	2-Methylsulfinyloxyacetic acid	3,3,4-Trimethylpent-4-enoic acid	5-Bromo-2,2,3,3-tetradeuteriopentanoic acid
2-Dimethylphosphorylacetic Acid	2-(Hydroperoxymethyl)cyclopropane-1-carboxylic acid	2-(Methylcarbamoyloxy)acetic acid	3-Formyloxy-2-hydroxypropanoic acid
2-[Amino(dimethyl)azaniumyl]acetate	2-Propanimidoylsulfanylacetic acid	N,N-Dimethylhydroxyglycine	3-Formyloxyoxirane-2-carboxylic acid
Dichloromalealdehydic acid	2,2-Difluoro-4-methyl-5-oxopentanoic acid	1-Nitro-1-fluoro-2-propanone	(2R)-5-Methoxyoxolane-2-carboxylic acid
Succimer	2,2-Difluoro-6-oxohexanoic acid	3-Oxobutanedithioic acid	(2R,3S)-3-Methoxyoxolane-2-carboxylic acid
1-Cyanocyclopropanecarboxylic acid	5-Hydroxy-2-oxopentanoic acid	(2S)-2-[Methyl(prop-2-enoyl)amino]propanoic acid	(R)-5-Methyltetrahydrofuran-2-carboxylic acid
1-Carboxycyclopropanecarboxamide	(E)-(113C)But-2-enedioic acid	3,5-Dichloro-4-oxo-pentanoic acid	4-Oxopent-2-ynoate
5-Chloro-2-methylpentanoic acid	2-(2-Methylpropyl)cyclopropane-1-carboxylic acid	2-Oxo-3-phosphopropanoic acid	(Z)-1-Hydroxy-1,4-dioxopent-2-en-3-olate
(R)-2-Methoxypropanoic Acid	1-Methylsulfanylethyl hydrogen carbonate	2-Prop-2-enoyloxypropanoic acid	(E)-5-Oxohex-3-enoate
(R)-(+)-2-Tetrahydrofuroic acid	2-Ethenoxyethyl hydrogen carbonate	2-(2-Methylprop-2-enoyloxy)propanoic acid	2-(Dithiolan-3-yl)acetate
4-Bromo-4,4-difluorobut-2-enoic acid	N-Carbomethoxy-L-cysteine	Acetoxyacetaldehyd-dimethylacetal	4-Oxopentane-1-sulfonic acid

4-Bromo-4,4-difluorobutanoic acid	5-Oxo-1,2,4-triazole-3-carboxylic acid	2-Methyliminopropanoic acid	2,2,3,3-Tetrafluoro-4-oxopentanoic acid
2-Fluoro-3-methylbenzoic acid	2-[Methyl(sulfamoyl)amino]acetic acid	Propanoic acid, 2-methyl-3-(methylsulfonyl)-, (S)-	3-[Methyl(prop-1-en-2-yl)amino]propanoic acid
4-Fluoro-5-oxopyrrolidine-2-carboxylic acid	2-(2-Chloroprop-2-enylsulfanyl)acetic acid	1-Mercapto-1-cyclopentanecarboxylic acid	2,2-Difluoropropane-1-sulfonate
2,2-Difluoro-2-(fluorosulfonyl)acetic acid	2-(2-Methylprop-2-enylsulfanyl)acetic acid	3-Dimethylsulfonio-2-methylpropanoate	3-Acetyloxypropanoate
3-Trihydroxysilylpropanoic Acid	5-Chloro-5-hexenoic acid	(2S)-4-Ethoxy-2-hydroxy-4-oxobutanoic acid	2-Chloro-3-methyl-3-sulfanylbutanoic acid
3-Cyclopropylpropanoic Acid	2-(4-Methyl-1,3-thiazol-3-ium-3-yl)acetic acid	4-Methylisoxazole-5-carboxylic acid	4-Chloro-5-sulfanylpentanoic acid
3-Oxocyclohexanecarboxylic acid	3-Formyl-3-methylbutanoic acid	2-Nitrooxyacetic acid	(2S)-4-Amino-2-methyl-4-oxobutanoic acid
3-(2-Thiazolyl)propionic acid	2-(Dioxiran-3-yl)acetic acid	2-(Nitrooxy)propanoic acid	2-Acetyloxy-1,1-difluoroethanesulfonate
Pyridazine-4-carboxylic Acid	2,2,4,4,4-Pentafluorobutanoic acid	[(2-Chloroacetyl)amino]methylphosphonic acid	2-[Methyl(trimethylsilyl)amino]acetic acid
2-Methyl-4,5-dihydro-1,3-thiazole-4-carboxylic Acid	2,4,4,4-Tetrafluorobutanoic acid	Thiocarbamoylthioacetic acid	3-Formyloxy-2-sulfanylpropanoic acid
2-Chloro-3-hydroxyisonicotinic acid	(2S,4S)-4-Methyl-5-oxotetrahydrofuran-2-carboxylic acid	Cyclohexylcarbonate	5-Bromo-2,2,4,4-tetradeuteriopentanoic acid
2-Cyanoisonicotinic acid	(2S,4R)-4-Methyl-5-oxotetrahydrofuran-2-carboxylic acid	Cyclopentyl hydrogen carbonate	2,3,4,6-Tetradeuterio-5-fluorobenzoic acid
3-Fluoro-2-iodopyridine-4-carboxylic acid	4-Methylbicyclo[3.1.0]hex-2-ene-6-carboxylic acid	4,4-Dimethyl-3-oxopentanoate	2,2-Dideuterio-5-hydroxypentanoic acid
2-Methylisonicotinic acid	2-Phosphoglycolate	2,5-Dichlorovaleric acid	2-(2-Oxoethylamino)acetate
2-Fluoro-4-nitropyridine	[2-(Hydroxyamino)-2-oxoethyl]phosphate	Dichloroacetic acid-2-13C	(2S)-2-(Deuterioamino)-3-hydroxybutanoic acid
4-Fluoronicotinic acid	[11C]Glycylsarcosine	Dideuterio (E)-2,3-dideuteriobut-2-enedioate	(Z)-3-Formyloxyprop-2-enoic acid
2-Bromothiazole-5-carboxylic acid	N-(Ethoxycarbonothioyl)-beta-alanine	Succinic acid-d6	3-Formyloxybut-3-enoic acid
4,5-Dimethylthiophene-2-carboxylic acid	(E)-2,3-Dichloroacrylic acid	3-Hydroxy(1,3-13C2)butanoic acid	3-[Formamido(methyl)amino]propanoic acid
Mucochloric acid	4-(Methylaminoxy)-4-oxobutanoic acid	4-Fluorobenzoic acid-alpha-13C-2,3,5,6-d4	Fluoromethoxymethanesulfonic acid
Tetrahydropyranyl-4-acetic acid	(2S)-4-Amino-2-(chloroamino)-4-oxobutanoic acid	(1,2-13C2)Butanedioic acid	(3S)-3-Formyloxy-3-hydroxypropanoic acid
3-(Dimethoxyphosphoryl)propanoic acid	(S)-2,4-Dimethyl-4-pentenoic acid	Succinic acid-13C4	2-Methyl-5-sulfanylidenehexanoic acid
2-Methyl-4,4,4-trifluorobutyric acid	(3S)-5-Oxopyrrolidine-3-carboxylic acid	3-Hydroxy(413C)butanoic acid	2,2,3,3,4,5,5-Octadeuterio-4-methylpentanoic acid
4,4,4-Trifluorobutyric Acid	3-(Cyclopropen-1-yl)propanoic acid	4-Cyclopropyl-4-oxobutyric acid	3-Thiophosphorosopropanoic acid
3,3,3-Trifluoropropionic acid	2-[(2R)-Oxiran-2-yl]butanoic acid	Benzoic acid-13C7	2-(Formyloxymethoxy)acetic acid
3-Fluoro-5-methylbenzoic acid	2-[(2S)-Oxiran-2-yl]butanoic acid	3,3-Difluoropropanoic acid	Tritio 3-methylbut-3-enoate
4,4,4-Trifluorobut-2-enoic acid	(2R)-2-Amino-4-oxopentanoate	Hydroxycarbonyl hydrogen carbonate	(S)-3,3-Difluorocyclopentanecarboxylic acid
5,5,5-Trifluoropentanoic Acid	2-Azaniumyl-4-oxopentanoate	[(Ethylsulfonyl)amino]acetic acid	4-Formyloxybut-3-enoic acid
4,5,5-Trifluoropent-4-enoic Acid	Methylenecyclopropylpyruvate	(3S)-3-(Acetyl amino)butanoic acid	3-Formyloxyprop-2-ynoic acid
2-Bromo-2,3,3,3-tetrafluoropropanoic acid	(S)-4-Hydroxy-2-oxopentanoic acid	6-Chloropyrimidine-4-carboxylic acid	(E)-3-Formyloxy-2-methylprop-2-enoic acid

3-Chlorotetrafluoropropionic acid	4-Methoxy-2,4-dioxobutanoate	3-Methylphosphanylpropanoic acid	(2-Mercaptoethylthio)acetic acid
2,3,3,3-Tetrafluoropropanoic Acid	2-Azaniumyl-3-methylsulfinylpropanoate	O-Acetyl-L-Threonine	6-Deuteriopyridine-3-carboxylic acid
2-Chloro-3-fluoroisonicotinic acid	[(Cyclopropylmethyl)thio]acetic acid	(113C)But-2-ynedioic acid	5-Deuteriopyridine-3-carboxylic acid
2,2-Difluorocyclopropanecarboxylic acid	3,5-Dimethyl-4,5-dihydro-isoxazole-5-carboxylic acid	3-Ketopentanoate	2-(Formyloxymethyldiazenyl)acetic acid
1-Hydroxy-1-oxo-1λ5-phosphetane-3-carboxylic acid	4-Oxopentylphosphonic acid	3-Carboxy-2-sulfidopropanoate	2-(2-Methyl-2-nitropropyl)oxirane
4-Methylthiophene-2-carboxylic acid	(2R,3R)-2-Deuterio-3-fluorobutanedioic acid	1,2-Dicarboxyethanethiolate	6-Methyl-2,3,4,5-tetrahydropyridine-4-carboxylic acid
2,2-Dichlorocyclopropane-1-carboxylic acid	2-Deuterio-4-oxopentanoic acid	3-Carboxy-3-mercaptopropanoate	6-Methyl-2,3,4,5-tetrahydropyridine-4-carboxylate
Chloroacetyl-D-alanine	beta-Sulfinylpyruvate	5-Methyl-2-oxo-1,3-dioxane-5-carboxylic acid	2-Methyl-4,5-dihydro-3H-pyridin-2-ylum-4-carboxylic acid
(2S)-2-Chloro-3,3-dimethylbutanoic acid	Phosphonemycin	(3S)-3-Hydroxy-4-oxopentanoic acid	2,3-Dideuterio-4-oxohexanoic acid
4-Methyl-5-oxohexanoic acid	(S)-4-Hydroxy-2-oxopentanoate	5-Chloro-2-oxopent-4-enoate	(1S)-3-Methylidenecyclopentane-1-carboxylic acid
2-Methyl-3-sulfinopropanoic acid	2-Azaniumyl-5-oxopentanoate	(3S)-2,3-Bis(sulfanyl)butanedioic acid	4-Methylcyclopenta-1,3-diene-1-carboxylate
2,2,2-Trifluoroethanesulfonic acid	3-Acetyloxy-2-azaniumylpropanoate	Tetrahydro-2H-pyran-3-carboxylic acid	2-(4H-Triazol-5-yl)acetic acid
4-Fluorobenzoate	1-Methyl-6-oxopiperidine-3-carboxylic acid	N-(Methoxyacetyl)glycine	(Z)-5-Methyl-4-oxohex-2-enoic acid
3-Fluorobenzoate	(4S)-2-Methyl-4,5-dihydro-1,3-thiazole-4-carboxylic acid	2-[(Methylcarbamoyl)amino]acetic acid	5-Deuterio-1,3-thiazole-4-carboxylic acid
2,3,4,4-Tetrachloro-3-butenic acid	4-Chloro-3-hydroxyisothiazole-5-carboxylic acid	2-[(2,2,2-Trifluoroethyl)sulfanyl]acetic acid	4-Deuterio-2-methyl-1,3-thiazole-5-carboxylic acid
2-(Propanethiylamino)acetic acid	(3R)-5-Oxopyrrolidine-3-carboxylic acid	2-(1H-Pyrazol-1-yl)propanoic acid	2-(Carbonofluorido)laminatoacetate
Isoxazole-4-carboxylic acid	(1S,2S,4S)-Bicyclo[2.2.1]hept-5-en-2-ylacetic acid	2-Isopropoxypropanoic acid	2-(Carbonofluorido)laminatoacetic acid
3-Chlorobenzoate	N-Ethyl-N-methyl-D-alanine	3-Ethoxy-2-methylpropanoic acid	2,3,3-Trifluoro-3-sulfopropanoic acid
4-Oxo-4-sulfanyloxybutanoic acid	(2R)-2-Amino-5-oxohexanoic acid	(1R,4S)-Bicyclo[2.2.1]heptane-2-carboxylic acid	2,2-Dideuterio-2-(trideuteriomethoxy)acetic acid
3-Sulfinopropionic acid	(2S)-2-(2-Methoxyethoxy)propanoic acid	[(1S)-1-Fluoro-2-(Hydroxyamino)-2-Oxoethyl]phosphonic Acid	2-(Trideuteriomethoxy)acetic acid
3-Amino-2-chloro-3-oxopropionic acid	(2R)-2-(2-Methoxyethoxy)propanoic acid	2-(1,3,2-Dithiazol-4-yl)acetic acid	3-Oxidooxybut-3-enoate
2-(2-Oxopyrrolidin-1-yl)propanoic acid	(2S)-2-Ethoxypropanoic acid	2-Fluoro-3-oxobutanoic acid	3-Oxidooxybut-3-enoic acid
2-Chloro-1-methylcyclopropanecarboxylic acid	(2S)-2-Cyclopropylpropanoic acid	(2E)-2-Hydrazinylideneacetic acid	(E)-4-Cyanobut-3-enoate
4-Oxo-5-hexenoic Acid	(2R)-2-Cyclopropylpropanoic acid	Acetoxy carboxylic acid	3-Cyanatopropanoate
Hydroxyaspartic acid	3-Methylisothiazole-4-carboxylate	3-(3-Ethoxyiran-2-yl)propanoic acid	Bicyclo[2.1.1]hex-2-ene-2-carboxylic acid
2-Butenoic acid, 3-bromo-2-chloro-4-oxo-	5,5,5-Trifluoro-4-oxopentanoate	2,3,3,3-Tetrachloro-2-methylpropanoic acid	6-Deuterio-5-oxohexanoic acid
2-Thioxothiazolidine-4-carboxylic acid	2-(Chloromethyl)-4-nitropyridine	3-Formyl-crotonic acid	4-Deuterio-3-oxobutanoic acid
1H-Imidazole-4-carboxylic acid, 2,3-dihydro-3-methyl-2-thioxo-	Trisnorlipoic acid	4-Methoxy-3-methylbutanoic acid	2-Oxo-2-(sulfanylmethylphosphanyl)acetic acid
3-(Trimethylsilyl)(2,2,3,3,2H4)propionic (2H)acid	2-[[[(2R)-2-Chloropropanoyl]amino]acetic acid	Oxalic acid 1-(2-oxo-2-hydroxyethyl) ester	(2R,3R)-3-Methoxy-2-methylbutanoic acid

Raphanusamic acid	2-[(2S)-2-Chloropropanoyl]amino]acetic acid	Carbonic acid 1-methylenepropyl ester	1-Phosphanylazetidine-3-carboxylic acid
(Z)-2-Chloro-3-(chloromethyl)-4-oxobutenoic acid	Methoxycarbonyloxy-acetic acid	Prop-1-en-2-yl hydrogen carbonate	(3R)-1-Phosphanylpyrrolidine-3-carboxylic acid
(Z)-2-Chloro-3-methyl-4-oxobutenoic acid	2-(5H-Tetrazol-5-yl)acetic acid	Prop-2-ynyl hydrogen carbonate	(3S)-1-Phosphanylpyrrolidine-3-carboxylic acid
4-Hydroxybutanoate	2-[(3S)-Oxan-3-yl]acetic acid	2-Carboxyoxycetic acid	1-Phosphanylpyrrolidine-3-carboxylic acid
Thioasparagine	2-[(3R)-Oxan-3-yl]acetic acid	3,3-Difluorohex-5-enoic acid	(3R)-3-Hydroperoxybutanoic acid
2,3-Difluorofumaric acid	2-(4-Methylpyridin-3-yl)acetic acid	2H-Thiopyran-6-carboxylic acid	1,2,2,3,3,4,4-Heptadeuteriocyclohexane-1-carboxylic acid
Hydroxylamine, O-acetyl-N-nitro-	4-Methyl-1H-pyrazole-5-carboxylate	Thiazinane-4-carboxylic acid	3-Formyloxy-3-hydroxypropanoic acid
Gonyauline	2-Chloro-1,3-thiazole-5-carboxylate	2-(Sulfonylamino)acetic acid	5-Methyl-2H-pyrrole-3-carboxylic acid
Magnesium 4-oxopentanoic acid	(1R,2S)-2-Ethoxycarbonylcyclopropane-1-carboxylic acid	Ethoxymethanesulfonic acid	1,3-Thiazol-2-ylmethanesulfonate
(2-Oxopyrrolidin-1-yl)acetic acid	1-Vinyl-1H-pyrazole-4-carboxylic acid	Carbonic acid monoisobutyl ester	(2R)-2-Methyl-5-oxohexanoic acid
N-(Methylsulfonyl)glycine	2-Cyclopentyl-2,2-difluoroacetic acid	4-Cyano-4-oxobutanoic acid	2-(Tritiomethyl)butanedioic acid
5-Oxothiolane-3-carboxylic acid	S-Cyano-L-cysteine	Phenoxysulfanylformic acid	4-Deuterio-3-nitrosobutanoic acid
(Tetrahydro-pyran-2-yl)-acetic acid	(1R,2R)-2-Ethoxycyclopropane-1-carboxylic acid	2-(2,3-Dihydro-1,2-oxazol-5-yl)acetic acid	(E)-3-Methyl-4-oxobut-2-enoate
4-Hydroxy-4-methylpent-2-ynoic acid	2-(Trifluoromethoxy)acetic acid	3-(Chloromethyl)-3-hydroxycyclobutene-1-carboxylic acid	2-Tritiobenzoic acid
2-Methyltetrahydrofuran-2-carboxylic acid	3-Chloro-2,2-dimethylbut-3-enoic acid	2-(Methylideneamino)acetate	CID 58616147
(s)-2-Mercaptosuccinic acid	(R)-6-Oxopiperidine-2-carboxylic acid	Oxiran-2-ylmethyl hydrogen carbonate	2-Oxidoperoxysulfanylacetate
2-(Carboxyamino)propanoic acid	(S)-Tetrahydro-2H-pyran-3-carboxylic acid	Sulfuric acid 2-hydroxyethyl ester	2-(Trioxidanylsulfanyl)acetic acid
Carboxymethyl sulfite	6-Fluoro-5-methylpyridine-3-carboxylate	(E)-4-Chlorobut-2-enoate	2,3,4-Trideuteriopentanoic acid
4-Iodobutyric acid	(1R,2R)-2-Nitrocyclopropane-1-carboxylic acid	1,2,2-Trichloroethoxy hydrogen carbonate	(2R,3S)-3-Methyloxirane-2-carboxylate
[(Trifluoromethyl)thio]acetic acid	(3R)-3-Amino-4-oxopentanoic acid	3,4-Dimethyl-1,2-thiazole-5-carboxylic acid	2-Methyl-3H-pyrazol-2-ium-4-carboxylic acid
6-Methylsulfanylpurimidine-4-carboxylic Acid	(3S)-3-Amino-4-oxopentanoic acid	2-Oxopropyl hydrogen carbonate	(2S)-4-Hydroxy-2-methyl-4-oxobutanoate
1-Methyl-2-cyclohexene-1-carboxylic acid	(S)-Tetrahydrofuran-3-carboxylic acid	1H-Diazepine-7-carboxylic acid	2,2-Dideuterio-3-(dideuteriomethyl)butanedioic acid
Trifluoromethoxyformic Acid	4-(Methylamino)-4-oxobutanoate	3H-Dioxepine-6-carboxylic acid	2,2,3,3-Tetrafluoro-4-(methylamino)-4-oxobutanoic acid
3-Hydroxybutyrate	2-[2-Hydroxyethyl(methyl)azaniumyl]acetate	2-[Chloro(hydroxy)phosphoryl]oxyprop-2-enoic acid	2-(4-Methyltetrahydro-2H-pyran-4-yl)acetic acid
Bicyclo[2.2.1]hept-2-ene-5-carboxylate	(2S)-2-Propan-2-yloxypropanoic acid	3-Fluoro-2-(fluoromethyl)propanoic acid	2-Methylcyclopropene-1-carboxylic acid
2-(2-Oxocyclopentyl)acetic Acid	(R)-Tetrahydro-2H-pyran-3-carboxylic acid	3,4-Difluorobutanoic acid	3-[Dichloro(methyl)silyl]propanoic acid
5-Chloro-6-fluoronicotinic acid	4-Hydroxy-5-methylfuran-3-carboxylic acid	3-Chloro-2-(chloromethyl)propanoic acid	(E)-4-Methoxy-2,3-dimethyl-4-oxobut-2-enoic acid
Hydrogen succinate	3-Deuterio-4-oxopentanoic acid	2,2-Bis(sulfanyl)butanedioic acid	(1R,2R)-2-(1-Hydroxyethyl)cyclobutane-1-carboxylic acid
2-(1H-Pyrazol-1-Yl)Acetic Acid	(2S)-2,3-Dimethyl-2-sulfanylbutoic acid	2-Oxopropyl phosphate	3-(Deuteriomethyl)-4-methoxy-4-oxobutanoic acid

Pyrazine-2-carboxylate	2-(2-Oxooxazolidin-3-yl)propanoic acid	3-Amino-5-fluoro-4-oxopentanoic acid	(2S)-2-(Phosphanyl amino)propanoic acid
1-Methoxypyridin-1-ium-3-carboxylic acid	3-(1,3-Thiazol-4-yl)propanoic acid	2-Sulfanylpent-4-enoic acid	1,2,2,2-Tetrafluoroethanesulfonate
2-Methyloxane-4-carboxylic Acid	2-[Cyclopropyl(methyl)amino]acetic acid	2H-Pyran-5-carboxylic acid	[Ethyl(methyl)amino] hydrogen sulfate
2-(Methylsulfonyl)acetic acid	2-[Methyl(2-methylprop-2-enyl)amino]acetic acid	2,5-Dioxohexanoic acid	5-Amino-2-methyl-5-sulfanylidene pentanoic acid
3-Trimethylsilylpropanoate	2-Oxabicyclo[3.1.0]hexane-6-carboxylic acid	2-Cyclohexa-1,3-dien-1-ylacetic acid	2-Ethoxyethanesulfonate
2,4-Dimethylcyclohexanecarboxylic acid	2-Ethoxycyclopropane-1-carboxylic acid	3,4-Dihydrophenylacetic acid	(Z)-3-Nitroprop-2-enoic acid
2-(Dithiocarboxy amino)acetic acid	(2R)-2-Chloro-3,3-dimethylbutanoic acid	3-Methyl-1,1-dioxothiaziridine-3-carboxylic acid	3-Oxobutyl nitrate
2-Cyclopropyl-2-methylcyclopropane-1-carboxylic acid	Oxiran-2-ylmethyl hydrogen sulfate	4-Fluoro-3-oxobutanoic acid	Methyl-(S)-3-hydroxybutyric acid
4-Oxohexanoic acid	2-Nitroso-4-isothiazolidinecarboxylic acid	5-Sulfanylidene cyclohexa-1,3-diene-1-carboxylic acid	2-Ethanethiolsulfanyl-2-methylpropanoic acid
Monomethyl malonate	2-Chlorooxazole-4-carboxylic acid	2-(Hydroperoxy)propionic acid	2-Carbamothioylsulfanyl-2-methylpropanoic acid
4-Methyl-5-oxotetrahydro-3-furancarboxylic acid	3-Azidopropyl hydrogen carbonate	5-Amino-2-fluoro-5-oxopentanoic acid	Ethanethiolsulfanylformic acid
2-Chloro-3,3-dimethylbutanoic acid	2,3-Difluorocyclohexane-1-carboxylic acid	Carbonic acid chloromethyl ester	4-Hydroxy-3-methylpentanoate
(5-Sulfanyl-1H-tetrazol-1-yl)acetate	2-Thioxo 1,3-thiazolidine-4-carboxylate	Phosphonooxymethyl acetate	Phosphinine-2-carboxylic acid
Isonicotinate	2-(2,2-Difluoro-3-methylidenecyclopropyl)acetic acid	2-(4,5-Dihydro-1,3-thiazol-4-yl)acetic acid	(Z)-2,3,4,4,4-Pentafluorobut-2-enoate
2-[Carbamothioyl(methyl)amino]acetic acid	1,4-Dioxane-2-acetic acid, (2S)-	2H-Pyran-3-carboxylic acid	4-Oxocyclopent-2-enecarboxylic acid
3,3-Dichloro-2-fluoropropanoic acid	3-Nitrooxy-propionic acid	Morpholin-4-yl hydrogen carbonate	2-(2-Methylcyclopropen-1-yl)acetic acid
2-(Carbamoylamino)butanoic Acid	2-Nitrooxy-ethanesulfonic acid	2-Chloro-3-methoxy-3-oxopropanoic acid	(Z)-3-Cyanoacrylic acid
2-(3-Methylisoxazol-5-yl)acetic acid	(E)-3-Deuteriohex-2-enoic acid	3-(Ethyl(methyl)amino)propanoic acid	(Z)-2,3-Dichloro-3-methoxyprop-2-enoic acid
Carboxymethyl methanethiosulfonate	DL-Alanyl-L-alanine	3,4-Dimethoxybutanoic acid	4-Oxopentanoic acid; silver
Acetylenedicarboxylate	3-Bromo-2,2,3-trifluoropropanoic acid	7-Oxabicyclo[2.2.1]hept-5-en-2-yl hydrogen carbonate	2-Cyclopropyl-2-(phosphanyl amino)acetic acid
2-(Tetrahydrofuran-3-yl)acetic acid	2-Chloro-3-nitropropanoic acid	5,6-Dimethylpyridine-3-carboxylic acid	3-Methylsulfanyl-4-oxopentanoic acid
4-Methylpentanoate	4-(Dibromoamino)butanoic acid	2-Vinyl-isonicotinic acid	N-(Nitromethyl)acetamide
5-Nitro-2-pentanone	2-[Bromo(chloro)amino]acetic acid	Dichloromalonate	2,2-Difluoro-2-(trioxidanylsulfanyl)acetic acid
Bicyclo[2.2.1]heptane-3-carboxylate	2-[Bromo(chloro)amino]-2-methylpropanoic acid	2-(Thian-4-yl)acetic acid	(1-Carboxy-3-oxobutan-2-yl)azanium
2,2,3,3,4,4,4-Heptafluorobutanoate	4-[Bromo(chloro)amino]butanoic acid	[Hydroperoxy(hydroxy)phosphoryl] hydrogen carbonate	2-Methyl-2-oxidoperoxy sulfanylpropanoic acid
2-Hydroxy-2-oxoethanesulfonate	Nicotinic acid-13C6	Furan-2-ylmethyl hydrogen carbonate	3-Methylperoxypropanoic acid
2-(2-Methylcyclopentyl)acetic Acid	N-Nitroso-N-methyl-4-aminobutyric Acid-d3	4-Methoxy-2-methylidenehexanoic acid	(2R)-2-[Acetyl(methyl)amino]propanoic acid

4-Chlorobenzoate	N-Nitroso-N-(methyl-d3)-3-aminopropionic Acid	4-Methoxy-3-methyl-2,4-dioxobutanoic acid	1-Ethoxy-2-nitroethenolate
Spiro[2.2]pentane-1-carboxylic Acid	N-Nitrososarcosine-d3	2-[Methyl(methylsulfanyl)amino]acetic acid	2,3,3,3-Tetrafluoro-2-fluorooxypropanoic acid
2-Butenoic acid, 3,4,4,4-tetrachloro-	5-Methyl-1,3,4-thiadiazole-2-carboxylic acid	2,4-Pentadiynoic acid	Dihydroxy-oxo-(oxolan-3-ylmethylidene)-lambda6-sulfane
Hexa-2,4-dienoate	(2R)-1-(Chloroacetyl)azetidine-2-carboxylic acid	2-(Oxiran-2-ylmethyl)prop-2-enoic acid	2-[Ethylidene(methyl)azaniumyl]acetate
4-Hexynoic acid	(1R,2R)-2-(Chlorocarbonyl)cyclopropane-1-carboxylic acid	(E)-3,4-Dichlorobut-3-enoic acid	3-Hydroperoxy-2-oxobut-3-enoic acid
2-Sulfidobutanedioate	1-(Chlorocarbonyl)cyclopropane carboxylic acid	4,4-Dichlorobutanoic acid	(E)-3-Methyl-4-oxopent-2-enoate
3-Carboxyprop-2-ynoate	(1R,2S)-2-(Chlorocarbonyl)cyclobutane-1-carboxylic acid	3,4-Dichloro-4,4-difluorobutanoic acid	2-Oxidoperoxyperoxyacetate
4-Methoxy-2-methyl-4-oxobutanoic acid	3-Formyl-1-methyl-1H-Pyrazole-5-carboxylic acid	Phosphorosoxyethyl hydrogen carbonate	2-(Trioxidanilyperoxy)acetic acid
Acetyl sulfite	3-Methoxy-1-methyl-1H-pyrazole-5-carboxylic acid	3-Chloro-4-methoxy-4-oxobutanoic acid	2-Methoxy-4-oxopent-2-enoic acid
1,3-Dioxane-5-carboxylic Acid	(2S,4S)-4-(Fluoromethyl)-5-oxopyrrolidine-2-carboxylic acid	Carbamoyl hydrogen carbonate	2-Phosphanylcyclopentane-1-carboxylic acid
3-(Methoxycarbonyl)but-3-enoic acid	(4S)-3-Nitroso-1,3-thiazolidine-4-carboxylic acid	3-Methyl-4-oxocyclohexanecarboxylic acid	2-[Deuteriomethyl(nitroso)amino]acetic acid
3-Amino-4-hydroxypentanoic acid	N-Bromo-N-methylglycine	2-Prop-1-en-2-yloxyacetic acid	3-[2-(Oxiran-2-yl)ethoxy]propanoic acid
3-Chloro-4-methylthiophene-2-carboxylic acid	(2S)-1-Hydroxy-5-oxopyrrolidine-2-carboxylic acid	Acetyloxymethanesulfonic acid	(E)-3-Hydroxy-4-oxobut-2-enoic acid
2-Amino-3-(dimethylcarbamoyl)propanoic acid	2-(Methylcarbamoyl)cyclopropane-1-carboxylic acid	Carbonic acid sec-butyl ester	(Z)-(113C)But-2-enedioic acid
2-[Carboxy(hydroxy)amino]acetic acid	2-(Ethylcarbamoyl)cyclopropane-1-carboxylic acid	2-(1-Hydroxyethylamino)acetic acid	3-((15N)Azanylidynemethyl)prop-2-ynoic acid
5,6-Dihydro-1,4-dioxine-2-carboxylic acid	(2S,3S)-3-Methoxycarbonyloxirane-2-carboxylic acid	3-Oxopropyl hydrogen sulfate	(Z)-2,3-Dideuterio(113C)but-2-enedioic acid
Tetrahydrofuran-3-carboxylic acid	(1S,5S,6S)-6-Fluoro-2-oxobicyclo[3.1.0]hexane-6-carboxylic acid	1,4-Dioxine-2-carboxylic acid	2,2,3,3-Tetradeuterio(113C)butanedioic acid
4-Hydroxy-4-oxobut-2-enoate	2-Methyl-1,4-oxathiine-3-carboxylic acid	2-(Sulfanylamino)propanoic acid	(E)-2,3-Dideuterio(113C)but-2-enedioic acid
2-[[2-(Methylamino)acetyl]amino]propanoic acid	(2R,3S)-3-Ethoxycarbonyloxirane-2-carboxylic acid	1,2,2-Trichloroethyl hydrogen carbonate	2-Acetyl-2-aminocyclopropane-1-carboxylic acid
2-Cyclopenta-1,3-dien-1-ylacetic acid	5-Methyl-4-oxothiolane-2-carboxylic acid	4,5-Dioxopentanoate	2,2,3,3-Tetrafluoro-3-sulfanylpropanoic acid
(2,2,2-Trifluoroethoxy)acetic acid	3-Nitrobut-3-en-2-one	1-Cyanoethyl dihydrogen phosphate	2,3,3,3-Tetrafluoro-2-sulfanylpropanoic acid
Methylsuccinate	(3R)-3-Nitrobutan-2-one	Propane-1,2-diol 1-phosphate	2,4-Dimethyloxetane-2-carboxylic acid
2-(2-Oxo-1,3-thiazolidin-3-yl)acetic Acid	(E)-2-Amino-4-oxopent-2-enoic acid	2-(1,2,3-Thiadiazol-4-yl)acetic acid	2-(2-Methoxyethoxyamino)acetic acid
2-Acetylsulfanyl-2-methylpropanoic acid	(2R)-2-Methyl-4-oxopentanoic acid	2,2,3-Trimethyl-4-oxopentanoic acid	(2R)-2,4-Dimethylpent-4-enoic acid
Pent-4-enoate	3,4-Dioxopentanoic acid	3-Methyliminopropanoic acid	(Z)-5-Fluorohex-4-enoic acid
4-Oxo-2-(2-oxoethyl)butanoic Acid	(3R)-3-Methyl-4-oxopentanoic acid	2-(Dichloromethyl)prop-2-enoic acid	[Cyclohexyl(hydroxy)methylidene]oxidanium

2,2-Difluoro-2-(trifluoromethoxy)acetic Acid	1-(Nitroperoxy)propan-2-one	Carboxyphosphanylformic acid	2-(Trioxidanylsulfanyl)propanoic acid
(4-Oxo-thiazolidin-3-yl)-acetic acid	(E)-3-Ethyl-4-oxopent-2-enoic acid	2-Pyrimidinecarboxylic acid, 3,4-dihydro-4-oxo-	3-Methyl-3H-pyrazole-5-carboxylic acid
4-Oxopentanoate	(2S)-2-(Methoxyamino)propanoic acid	2-(Fluoromethoxy)prop-2-enoic acid	(1-Phosphanylethylideneamino) methanesulfonate
Isothiazole-5-carboxylic acid	N-(Acetyloxy)-L-alanine	2-Hydroxypropan-2-yl hydrogen carbonate	2-(3H-Pyrrol-5-yl)acetic acid
3,4,4-Trichloro-3-butenic acid	(2S)-2-[Formyl(methyl)amino]propanoic acid	6-Fluoro-4-oxobicyclo[3.1.0]hex-2-ene-6-carboxylic acid	2,2-Dichloro-2-dihydroxyphosphinothioylacetic acid
1,4-Dioxane-2-carboxylic Acid	4-Methyl-1-oxodithiolane-4-carboxylic acid	(Z)-3-Methoxypent-2-enoic acid	2-Chloro-2-dihydroxyphosphinothioylacetic acid
3-Oxocyclohexene-1-carboxylic Acid	(1R,3R)-3-(Hydroxymethyl)cyclopentane-1-carboxylic acid	2-Hydroxycyclopropanecarboxylic acid	2-Prop-2-enoyloxycyclopropane-1-carboxylic acid
2-Methylcyclohexane-1-carboxylate	N-Methyl-N-(2-methylpropanoyl)-L-alanine	1,1,2,2-Tetrafluoro-2-methoxyethanesulfonate	Acetyloxymethanesulfonate
[(2-Ammoniopropanoyl)amino]acetate	(2S)-2-[(2-Chloroacetyl)-methylamino]propanoic acid	2-(2-Sulfanylidene-1,3-oxazol-3-yl)acetic acid	2,2-Dideuterio-2-thiophen-2-ylacetic acid
4-Amino-2-azaniumyl-4-oxobutanoate	(R)-1-Pyrroline-5-carboxylate	2-(Methylcarbamothioylsulfanyl)acetic acid	3-Fluoro-1-methylpyrazole-4-carboxylic acid
2-Methoxyethoxymethanedithioic Acid	2-[2-(Sulfanylmethyl)cyclopropyl]acetic acid	3-((Imino(mercapto)methyl)amino)propanoic acid	2,2-Difluoro-2-fluoroperoxysulfanylacetic acid
Maleamic acid	3-Methyl-2-oxo-2,3-dihydro-1H-imidazole-4-carboxylic acid	4-[Hydroxy(methyl)amino]-4-oxobutanoic acid	2,3,5,6-Tetradeuterio-4-fluorobenzoic acid
Glutaconic acid	(S)-2-Fluoro-4-methylpentanoic acid	2-Hydroxyethyl hydrogen carbonate	1-Methylsulfonylaziridine-2-carboxylate
3-Nitroacrylate	Valeric-d9 acid	7-Oxabicyclo[4.1.0]hept-2-ene-3-carboxylic acid	(2E)-Hexa-2,5-dienoate
(Z)-Acetylacrylic acid	2-[Hydroxy(propan-2-yl)phosphoryl]acetic acid	3-Ethoxy-2-methyl-acrylic acid	2-(1,5-Dimethyl-1H-pyrazol-4-yl)acetic acid
4-Methylpent-4-enoic acid	(S)-2-Mercaptobutanoic acid	3-Methylbut-3-enoate	(1R,5S,6R)-3-Azabicyclo[3.1.0]hex-2-ene-6-carboxylic acid
4,4-Dimethyl-2-pentenoic acid	2-Methyl-4,5-dihydrooxazole-4-carboxylic acid	3-Amino-2-fluoropyridine-4-carboxylic acid	2-[1-(Sulfidomethyl)cyclopropyl]acetate
4,4-Dimethyl-2Z-pentenoic acid	4-Methyloxazole-2-carboxylic acid	4-Chloro-2-oxobutanoic acid	3-Nitrosooxy-4-oxobutanoic acid
3-Pentenoic acid	(1R,2S)-2-Fluorocyclopropane-1-carboxylic acid	3-Cyano-3-oxopropanoic acid	2-Chloro-2-oxoethanesulfonate
2-Hexenoic acid	Nicotinic Acid-d1	(Z)-2,4,4-Trichlorobut-2-enoic acid	2-Dimethylphosphoryloxyacetic acid
4-Oxoheptanoic acid	Nicotinic Acid-d3 (major)	Ethyl 2-carboxyoxopropanoate	3-(2-Methylcyclopropyl)propanoic acid
Chlorofumaric acid	3-Pyridylacetic Acid-d6	Methyl 2-carboxyoxoacetate	4-Methoxy-4-methylpentanoic acid
2-Chloro-3-methyl-cis-butenedioic acid	5-Chloro-4-(chloromethyl)thiophene-2-carboxylic acid	3-Mercaptobutanoate	5-Deuterio-2-methyl-1,3-oxazole-4-carboxylic acid
1-Methylcyclopentane-1-carboxylate	Carboxymethoxy-dihydroxymethoxyphosphonium	3-Methyl-4-oxo-2-sulfanylpentanoic acid	(2R)-2-[(Methoxycarbonyl)(methyl)amino]propanoic acid
Maleate	3-Dioxidoazaniumylidenepropanoate	2-Deuterio-2-trimethylsilylpropanoic acid	(2S)-2-[(Methoxycarbonyl)(methyl)amino]propanoic acid

Glutamyl group	(2S)-2-Amino-3-[(2R)-oxiran-2-yl]propanoic acid	But-3-ynyl hydrogen carbonate	2-(1,3-Difluoropropan-2-yloxy)acetic acid
5-Oxo-L-norleucine	4,4-Difluoro-but-2-enoic acid	2-Chlorooxyacetic acid	4-Oxopentyl hydrogen carbonate
3,5-Hexadienoic acid	2-Thiabicyclo[3.1.0]hex-3-ene-6-carboxylic acid	N-Ethyl-N-methylglycine	(2S)-2-Amino-3-deuterio-3-hydroxybutanoic acid
4-Oxoisocrotonic acid	(2S)-2-Oxidobutanedioate	Carboxy(hydroxy)carbamic acid	3-(Phosphanylideneamino)propanoic acid
4-Methylpyrazole-3-carboxylic acid	(2S)-2-Ammonio-5-oxopentanoate	3,3-Dimethylbutyl hydrogen carbonate	2-(1-Acetoxypropyl)acetic acid
(E)-3-Methylsulfonylprop-2-enoic Acid	2,2-Dideuterio-4-hydroxybutanoic acid	1-Fluoroethyl hydrogen carbonate	3,7-Dioxabicyclo[4.1.0]heptane-4-carboxylate
(E)-5,5-Dichloropent-2-enoic Acid	3,3-Dideuterio-4-hydroxybutanoic acid	1-Oxopyrrolidin-1-ium-2-carboxylic acid	3,7-Dioxabicyclo[4.1.0]heptane-4-carboxylic acid
(S)-2-Chloro-3-methylbutyric acid	2,2,3,3-Tetradeuterio-4-hydroxybutanoic acid	4-Methoxy-3-oxobutanoic acid	2,2-Difluoro-4-methylpentanoic acid
(R)-2-Chloropentanoic acid	4-Chlorobenzoic acid-(phenyl-13C6)	2,2-Dimethylpropyl hydrogen carbonate	2-Methyl-2H-pyrrole-5-carboxylic acid
(2R)-2-Acetyloxypropanoic acid	2,2,3,3,4,4-Hexadeuterio-4-hydroxybutanoic acid	N,N-Dichloroglycine	(z)-4-(Dimethylamino)but-2-enoic acid
2-Sulfanylbutanedioate	(E)-5-Bromo-4-oxopent-2-enoic acid	2-[1-Methoxyethyl(methyl)amino]propanoic acid	2,2-Difluoro-2-fluoroxyethanesulfonic acid
Monomethyl maleate	5-Chloro-4-hydroxy-2-oxovalerate	3-Methylbutan-2-yl carbonate	Oxane-3-carboxylate
(Z)-4,4,4-Trichlorobut-2-enoic acid	2h-Imidazol-4-Ylactic Acid	3-Methylbutan-2-yl hydrogen carbonate	(1S,2S)-2-Ethenyl-1-methylcyclopropane-1-carboxylic acid
4-(Hydroxyimino)valeric acid	(Z)-3-Bromo-4-methoxy-4-oxo-2-butenic acid	5-Oxopyrazole-3-carboxylic acid	4-Methoxy-2-methyl-4-oxobutanoate
N-Methylmaleamic acid	2-(1-Methyl-1H-pyrazol-5-yl)acetic acid	3,3,3-Trifluoro-2-methoxypropanoic acid	4-Oxo-2-tritiopentanoic acid
cis-3-Hexenoic acid	trans-2-(Trifluoromethyl)cyclopropane-1-carboxylic acid	2-(Aziridin-1-yl)propanoic acid	2-Ethyl-4-hydroxy-4-oxobutan-1-olate
(Z)-2,3-Dichloroacrylic acid	1-Methyl-5-oxo-4,5-dihydro-1H-pyrazole-3-carboxylic acid	Aziridine-1,2-dicarboxylic acid	(1S)-2-(18F)Fluoranyl-1-methylcyclobutane-1-carboxylic acid
(E)-3-Chloro-2-methylprop-2-enoic acid	2,2-Difluorocyclobutanecarboxylic acid	Hydroperoxyacetic acid	(Z)-4-Oxohex-2-enoic acid
CID 5356531	Fumaric acid amide	2-(3-Fluoro-4-methylthiophen-2-yl)acetic acid	4-Oxopentan-2-ylphosphonic acid
Ethyl fumarate	(2S,3S)-2-Bromo-3-methoxybutanoic acid	2-(1,4-Dioxan-2-yl)acetic acid	3-(Dioxiran-3-ylidene)-3-hydroxypropanoic acid
(2E)-4-Hydroxy-2-methyl-2-pentenoic acid	(2R)-2-[(2S)-2-Hydroxypropanoyl]oxypropanoic acid	Ethoxy hydrogen sulfate	2-(2-Oxo-1H-imidazol-3-yl)acetic acid
3-Hexene-2,5-dione	Lactic acid lactate, D-	Acetyloxycarbamic acid	(2S)-2-Methylsulfanylcyclopropane-1-carboxylic acid
3-Acetylacrylic acid	Chloropyruvate	3,3-Dichloro-2-methylpropanoic acid	2-(Phosphanylamino)oxyacetic acid
trans-4-Hydroxypent-2-enoic acid	Pentanoic acid, 4-hydroxy-, (S)-	3-Methyl-3-(oxiran-2-yl)butanoic acid	(Z)-4-Amino-2-hydroxy-4-oxobut-2-enoic acid
3-Methyl-4-oxo-2-pentenoic acid	(4R)-4-Hydroxypentanoic acid	Cyclopropylcyanoacetic acid	2-Phosphanyl-3H-pyrrole-4-carboxylic acid
Fumaramic acid	(2R)-3-Ethoxy-2-methylpropanoic acid	2-(2,2-Dichlorocyclopropyl)acetic acid	3-Azido-3-methylbutanoic acid

Acrylic acid, 3-(1-methylcyclopropyl)-, E	(2S)-3-Methoxy-2-methylpropanoic acid	4-Chloro-2-methylidenepentanoic acid	1-(2-Methoxy-2-oxoethyl)cyclopropane-1-carboxylic acid
2-Butenoic acid, 4-(methylamino)-4-oxo-, (Z)-	(1R,2R)-2-(Methoxycarbonyl)cyclopropane-1-carboxylate	Cyanomethyl hydrogen carbonate	5-Hydroxy-5-oxido-2-oxopentanoate
5-Hydroxy-2-hexenoic Acid	(1S,2S)-2-(Methoxycarbonyl)cyclopropane-1-carboxylate	2-Cyano-3-hydroxybutanoic acid	2H-Azirin-1-ium-1,2-dicarboxylic acid
Monomethyl fumarate	(1R,5S)-6-Oxabicyclo[3.1.0]hexane-3-carboxylic acid	4-Hydroxy-3,3-dimethyl-butyric acid	2-Methylazirin-1-ium-1,2-dicarboxylic acid
cis-Pentenedioic acid	3-Fluoro-2-methylisonicotinic acid	2-Hydroxy-2-oxoethanesulfinate	2-Carbamoyl-2H-Azirin-1-ium-1-carboxylic acid
2-Butenoic acid, 4,4-dimethoxy-, methyl ester	2-(Methylsulfonimidoyl)ethylphosphonic acid	Oxolan-2-ylmethyl hydrogen carbonate	(S)-5,5,5-Trifluoro-3-methylpentanoic acid
3-Methoxymethacrylic acid	2-(Dimethylcarbamoyl)cyclopropane-1-carboxylic acid	3-Methoxypropyl hydrogen carbonate	4-Methoxy-4-oxo-2-tritiobutanoic acid
2-Propenoic acid, 3-thiocyanato-	3-Methyl-cyclobutaneacetic acid	2-Isocyanatopropanoic acid	4-(Methylamino)-4-oxo-2-tritiobutanoic acid
3-Ethoxycrotonic acid	4-Oxo-5-sulfanylpentanoic acid	2-Methylprop-2-enyl hydrogen carbonate	2-Fluoro-2-(fluoromethoxy)acetic acid
Fluorofumaric acid	3-(N-Hydroxyformamido)Propanoic Acid	Oxolan-3-yl hydrogen carbonate	4-Ethyliminobutanoate
(2Z)-6-Methylhepta-2,6-dienoic acid	4-(N-Hydroxyformamido)Butanoic Acid	2,3-Difluoro-3-oxopropanoic acid	4-(Ethylideneamino)butanoate
cis-Hex-4-enoic acid	4-(Hydroxyamino)Pentanoic Acid	3-Ethoxy-3-iminopropanoic acid	(1S)-3-Methylidene-4-oxocyclopentane-1-carboxylic acid
(Z)-4-(Hydroxyamino)-4-oxobut-2-enoic acid	Nitrosoperoxy-carbonic acid	5-Chlorohexanoic acid	2-Methyliminobut-3-enoic acid
2-Thiophosphorosoacetic acid	Nitrosoperoxy-carbonate	(2S,3R)-3-Methyl-4-oxoazetidine-2-carboxylic acid	(2S)-Oxirane-2,3-dicarboxylic acid
2,4-Dioxopentanoate	2-Hexenoic acid, 5-oxo-	(2S)-2-[Deuterio(fluoro)amino]propanoic acid	Deuterio 3-oxobutanoate
5-Hydroxypentanoate	(Z)-3-Bromo-4-methoxy-4-oxobut-2-enoic acid	(2S)-2-[(2-Deuterioacetyl)amino]propanoic acid	4-Hydroxy-4-oxobutan-1-olate
2-Methylidenebutanedioate	(2,4-Cyclopentadienylidene)acetic acid	(2R)-2-[(2-Deuterioacetyl)amino]-3-sulfanylpropanoic acid	2,2-Difluoro-2-oxidoperoxy-sulfanylacetic acid
5-Amino-4,5-dioxopentanoate	4-Methoxy-4-oxobut-2-enoate	(R)-4-Chloro-3-hydroxybutyric acid	Furan-3-yl sulfate
(2S)-2-Amino-3-oxobutanoate	2-Cyano-2-(methoxyimino)acetic acid	2-Deuterio-3-trimethylsilylpropanoic acid	2,2-Dimethyl-3-methylsulfinylpropanoic acid
4-Oxocyclohexanecarboxylate	2-(5-Fluoropyridin-3-yl)acetic acid	(3R)-4-Chloro-3-hydroxybutanoate	Nitromethyl carbonochloridate
6-Hydroxyhexanoate	(E)-3-Cyclobutylacrylic acid	(3S)-2-Oxooxolane-3-carboxylic acid	(Z)-2-Fluoro-5-hydroxypent-2-enoic acid
Fumarate	2-(2-Fluoropyridin-3-yl)acetic acid	3-Ketocyclopentanecarboxylate	4-Phosphanyloxybutanoic acid
Maleic acid monoamide	2-(3,3-Difluorocyclopentyl)acetic acid	3-Chloro-2-methylidenebutanoic acid	Pentanoic-3,3-d2 acid(9CI)
(2R)-2,4-Diamino-4-oxobutanoate	3,3-Difluorocyclopentanecarboxylic acid	Butoxy hydrogen carbonate	2-[Methyl(phosphanyl)amino]propanoic acid
(1S)-3-Amino-1-carboxy-3-oxopropan-1-aminium	4,4-Dimethoxy-but-2-enoic acid	4-Fluoro-2,3-bis(fluoromethyl)but-2-enoic acid	(Z)-2-Methoxy-4-oxopent-2-enoic acid
(2S)-2-Amino-4-oxobutanoate	2,3,3,3-Tetrafluoro-2-methylpropanoic acid	2-Ethenoxyethylphosphonic acid	(2S)-2-Methyl-3-methylsulfinylpropanoic acid
cis-beta,gamma-Penteneoic acid	4,4,4-Trifluoro-2-methylbut-2-enoic acid	Nitroalanine	2-[Acetyl(methyl)amino]propanoate

4,4,4-Trifluoro-3-methyl-2-butenic acid	3-Hydroxyisothiazole-5-carboxylic acid	(3S)-3-(Methylamino)-4-oxobutanoic acid	3-(Ethylideneamino)-2-methylpropanoic acid
(E)-4-(Dimethylamino)-4-oxobut-2-enoic acid	3-Mercaptovalerate	Carboxycysteine	Tritio tritiooxycarbonyl carbonate
4-Hydroxyimino-valeric acid	(E)-3-Cyclopropylbut-2-enoic acid	(3S)-3-Amino-4-hydroxypentanoic acid	(Z)-3,4-Dichlorobut-3-enoic acid
L-Alanyl-L-alanine	2-Ethynylisonicotinic acid	3-Chlorobutan-2-yl hydrogen carbonate	2-[2-[Deuterio(tritio)methoxy]ethoxy]acetic acid
Alanylactate	3-Methoxy-2-propenoic acid	Dioxolane-3-carboxylic acid	4-[Deuterio(tritio)methoxy]butanoic acid
N,N-Dimethyl-L-Alanine	5,5-Difluorohexanoic acid	Nitroperoxynitrate	2-(2-Methyl-2H-pyrrol-3-yl)acetic acid
N-Carboxyalanine	(E)-5-Methyl-hex-2-enoic acid	4-Fluoro-2-methylidenebutanoic acid	(2R)-2-(Methoxyamino)propanoic acid
(S)-2-Methoxypropanoic acid	1-Chlorobutyl hydrogen carbonate	2-Methyl-4-oxo-butyric acid	(2R)-5-Sulfanylidene pyrrolidine-2-carboxylic acid
(3R,4R)-3-Amino-4-hydroxypentanoic acid	CID 53426360	3-(Oxan-4-yl)propanoic acid	3-(114C)Methylbenzoic acid
3-Ethoxyacrylic acid	6-Chlorohex-2-ynoic acid	Tricarboxylic acid	Methylaminophosphanylfornic acid
4,4,4-Trifluorocrotonic acid	Fluorosuccinate	2-(Dimethylphosphorylamino)acetic acid	(3S)-3-Methyl-4-oxobutanoic acid
Chloroacetyl-L-alanine	2-Ethyl-4,4,4-trifluorobut-2-enoic acid	2-(2-Methoxypropoxy)acetic acid	(1S)-3-Hydroxycyclopentane-1-carboxylic acid
Methyl 3-(methylsulfonyl)propanoate	2-Bromo-3-methylisonicotinic acid	[1-(Mercaptomethyl)cyclopropyl]acetate	(Z)-4-Hydroperoxybut-2-enoic acid
(E)-3-(Dimethylamino)acrylic acid	2-Isothiocyanatopropanoic acid	2-[(2-Methylpropan-2-yl)oxy]propanoic acid	(E)-4-Hydroperoxy-2-methylbut-2-enoic acid
(E)-4,4-Dihydroxybut-2-enoic acid	3-Isothiocyanatobutanoic acid	Carbonic acid, monobutyl ester	(Z)-2,3-Dichloro-3-hydroxyprop-2-enoic acid
Monoethyl fumarate	Butanedioic acid, hydroperoxy-2,2-Dichloro-2-(dichloroamino)acetic acid	2-Oxidobenzoate	1-Deuteriohexane-2,5-dione
4,4,4-Trichloro-crotonic acid	4,4-Dichloro-4-fluorobutanoic acid	Carboxyoxo hydroxy carbonate	(2R,3S)-2,3-Dimethyl-4-oxopentanoic acid
(2-Hydroxyethyl) hydrogen fumarate		3,4-Dihydro-2H-thiopyran-2-carboxylic acid	6-Tritiohex-2-enoic acid
Monoisopropyl Fumarate	3-Cyanopropenoic acid	3-Fluorocyclobutanecarboxylic acid	3-(2-Oxopropoxy)propanoic acid
(2E)-2-(Methylhydrazinylidene)propanoic acid	2-Propenoic acid, 3-nitro-, methyl ester	2-Methyl-3-phosphanylbut-3-enoic acid	2-Deuterio-2-methyl-3-oxobutanoic acid
(Z)-3,4,4,4-Tetrachlorobut-2-enoic acid	Methyl phosphonopropanoate	(E)-4-Methylperoxybut-2-enoate	4-Hydroperoxypent-4-enoic acid
3-Hydroxyimino-cyclopentanecarboxylic acid	2-[Methanehydrazonoyl(methyl)amino]acetic acid	(E)-4-Methylperoxybut-2-enoic acid	2-(2-Methoxypropanoyloxy)acetic acid
4-Hydroxycrotonic acid	2-Hydroperoxybut-2-enedioic acid	2-Methyl-2-(phosphanylamino)propanoic acid	4-Hydroxy-1-methoxy-4-oxobut-1-en-1-olate
Hydrogen fumarate	4-Ethyl-5-oxoxolane-2-carboxylic acid	4-Methylcyclopenta-1,4-diene-1-carboxylic acid	(1S,2S)-2-(2-Methoxy-2-oxoethyl)cyclopropane-1-carboxylic acid
(S)-(-)-2-Acetoxypipronic acid	3,3-Dichlorocyclobutanecarboxylic acid	2,2-Dichloro-2-deuterioacetic acid	2-[Methyl(phosphanyloxy)amino]acetic acid
(2E)-2-Hydrazinylidenepropanoic Acid	2-Carboxyethyl methanethiosulfonate	2-[[Hydroxy(methyl)phosphoryl]-methylamino]propanoic acid	Tritio 4-methylpentanoate
(Hydroxyphosphinyl)pyruvic acid	2-Fluoro-2-methylbutanoate	3-[Hydroxy(methyl)phosphoryl]-2-methylpropanoic acid	Potassium;carbanide;4-oxopentanoic acid
Carboxymethyl-(hydroxymethyl)-oxophosphonium	3-Fluoro-5-carboxypyridine	3-(Methylamino)-4-oxopentanoic acid	(2S)-4-Amino-4-oxo-2-(phosphanylamino)butanoic acid

L-Alanine, N-formyl-N-hydroxy-	4,4-Difluoro-2-methylbutanoic acid	(E)-4-Hydroperoxybut-2-enoic acid	2-[(Methylsulfamoyl)amino]acetic acid
2-Carboxyethyl-hydroxy-oxophosphonium	4-Aminoxy-4-oxobut-2-enoic acid	3-Chloro-2-(dimethylamino)propanoic acid	2-Chloro-4-hydroperoxybutanoic acid
(2E)-2-(2-Methylcyclohexylidene)acetic acid	2-Ethoxy-2-sulfanylacetic acid	2-Methoxy-4-oxopentanoic acid	2-Bromo-4-hydroperoxybutanoic acid
(E)-4-Bromobut-3-enoic acid	(Ethoxyimino)acetic acid	3-Methoxy-4-oxopentanoic acid	(E)-3-Formyloxyprop-2-enoic acid
3-Ethoxyisocrotonic acid	2-Amino-5-fluoro-4-oxopentanoic acid	3-Methanesulfinyl-2-methylpropanoic acid	(Z)-4-Aminoxy-4-oxobut-2-enoic acid
Hydroxy-(2-methoxyethoxy)-oxophosphonium	3-Cyanobut-2-enoic acid	2-(Methylideneamino)propanoic acid	(Z)-3-(Oxidoamino)prop-2-enoic acid
(R)-4-Methoxy-2-methyl-4-oxobutanoic acid	3-Aminoxy-2-methylpropanoic acid	5-Fluoro-2-methylidenepentanoic acid	2-Oxidoperoxysulfanylacetic acid
3-Hydroxy-2,3-dioxopropane-1-sulfinate	(2S)-4-Methoxy-2-methylbutanoic acid	4-Methylpent-4-enoate	4-Hydroxyiminobutanoic acid
(5Z)-5-Hydroxyimino-4-oxopentanoic acid	(1R)-2-Propylidenecyclopropane-1-carboxylic acid	Acetonbisulfite	2-(Methylperoxyamino)propanoic acid
(Pyridazin-3-yloxy)acetic acid	2-Fluorocyclohexa-1,3-diene-1-carboxylic acid	Carboxyperoxy hydrogen carbonate	2-Bromo-3-methyl-4-oxo-2-pentenoic acid
Pyruvatoxime	3-Formamidoprop-2-enoic acid	2-Acetamidopropanoate	(1S,3S)-3-Methoxycyclopentane-1-carboxylic acid
5-Oxohexanoate	4-Chloro-4-oxobut-2-enoic acid	2-(Chlorosulfonyl)propanoic acid	2-Methyl-4-(phosphanylamino)butanoic acid
3-Chlorobut-3-enoic acid	2-[Acetyl(methyl)amino]-2-sulfanylideneacetic acid	5-Methyloxolane-2-carboxylic acid	2-[Methyl(2-methylprop-2-enoyl)amino]acetic acid
Exo-Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid	3-Hydroperoxyprop-2-enoic acid	3,3,4,4-Tetrafluoro-2-methylidenepentanoic acid	(4S)-Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid
gamma-Chlorocrotonic acid	2-Methyl-4-oxobut-2-enoic acid	2-Methylidene-4-sulfanylidenebutanoic acid	5-Fluoro-4-methylnicotinic acid
4,4-Dichloro-2-butenic acid	3-(Ethanethiylamino)propanoic acid	Piperidin-1-yl hydrogen carbonate	2-Formyloxy-2-oxoacetic acid
(Z)-3-Heptenoic acid	2-(2-Methoxyethoxy)prop-2-enoic acid	2-Bromo-3-oxobutanoic acid	3-(Methoxyamino)propanoic acid
(E)-4-Fluorobut-2-enoic Acid	(2S)-Aziridine-1,2-dicarboxylic acid	(E)-4-Hydroxy-3-methyl-2-pentenoic acid	3-[Methoxycarbonyl(methyl)amino]propanoic acid
4-Bromocrotonic acid	3-Chloro-4-chlorooxy-4-oxobutanoic acid	(Z)-4-Chloro-3-methylbut-2-enoic acid	3-[Formyl(methyl)amino]-2-methylpropanoic acid
2-Chloromaleic acid	2,3-Dichloro-4-methoxy-4-oxobut-2-enoic acid	(Z)-4-(Dimethylamino)-4-oxobut-2-enoic acid	2-[1-Cyanoethyl(methyl)amino]acetic acid
(2E,5E)-2,5-Heptadienoic acid	2-Iodobut-2-enedioic acid	2-Chloro-2,3,3-trifluorosuccinic acid	2-Cyclopropylcyclopropane-1-carboxylic acid
4,5-Oxohexenoate	Trimethyl(sulfooxy)azanium	2,3-Difluoro-2-methylpropanoic acid	(E)-4-Propan-2-yloxybut-2-enoic acid
3-Cyclopropylprop-2-enoic acid	2-Butenoic acid, 4-hydroxy-3-methyl-	2-Fluoro-2-methyl-pent-4-enoic acid	2-Methyl-2-(propan-2-yl)cyclopropane-1-carboxylic acid
3-(Methylsulfanyl)prop-2-enoic acid	2-Methylidene-5-sulfanylpentanoic acid	Carboxyoxycarbamic acid	2-Ethyl-2-methylcyclopropane-1-carboxylic acid
(E)-2-Sulfanylbut-2-enedioic acid	4-Methoxy-3-methyl-4-oxobut-2-enoic acid	2,3-Dimethylisonicotinic acid	3-Methyloxane-3-carboxylic acid
2,4-Pentadienoic acid, 4-hydroxy-	2-Nitroethyl hydrogen carbonate	3-Oxopropylcarbamic acid	3-(Trifluoromethoxy)propanoic acid
(Z)-4-Hydroxypent-3-enoic Acid	3-Cyclopropyliminopropanoic acid	3-Methylcyclopent-2-ene-1-carboxylic acid	(2Z)-2-(Oxolan-3-ylidene)acetic acid

4,5-Epoxy-2-hexenoic acid	(2R)-2-(Chloroamino)-3-sulfanylpropanoic acid	2-Ethoxyethanesulfonic acid	2-Formamidooxyacetic acid
1,2-Dithiolane-4-carboxylic acid, 1-oxide	3-Methylcyclohexa-1,5-diene-1-carboxylic acid	2H-Thiopyran-5-carboxylic acid	Spiro[2.3]hexane-5-carboxylic acid
Vinyl hydrogen succinate	6-Oxo-2,3-dihydropyran-3-carboxylic acid	2-Sulfanyl-2-(1,3-thiazol-4-yl)acetic acid	2-[1-(Methoxymethyl)cyclopropyl]acetic acid
N-Vinyloxycarbonyl-L-alanine	Pyrazin-2-yl hydrogen carbonate	5-Sulfanylidene-4,5-dihydro-1,3,4-oxadiazole-2-carboxylic acid	5-Methoxy-4-oxopentanoic acid
(2S,3S)-Oxirane-2,3-dicarboxylic acid	3,4,4-Trichloro-2-methylidenebutanoic acid	4-Chloro-5-methyl-2-thiophenecarboxylic acid	3-Cycloprop-2-en-1-ylpropanoic acid
2-Cyclopenta-2,4-dien-1-ylacetic acid	Thiazinane-3-carboxylic acid	5-Chloro-4-methylthiophene-3-carboxylic acid	2-Cycloprop-2-en-1-ylacetic acid
1-Propyl-1H-pyrazole-4-carboxylic acid	3-(Chloromethyl)-4-hydroxybutanoic acid	5-Chlorofuran-3-carboxylic acid	2-(Cyclopropen-1-yl)acetic acid
N-Methyl-N-(methylsulfonyl)glycine	(2R)-2-Bromo-3-cyclopropylpropanoic acid	2,2,3,3-Tetrakis(sulfanyl)propanoic acid	(5-Methyl-1,3,4-oxadiazol-2-yl) hydrogen carbonate
(Z)-2-Hydroxy-4-oxopent-2-enoic acid	2-(3-Methyl-1,2-oxazol-4-yl)acetic acid	4-Cyano-2-methylbutanoic acid	Pyridazin-4-yl hydrogen carbonate
2-[(2R)-Oxan-2-yl]acetic acid	(1R,5S)-Bicyclo[3.2.0]heptane-3-carboxylic acid	Carboxyoxymethanesulfonate	2-Methylbicyclo[1.1.0]but-1(3)-ene-2-carboxylic acid
(1R,3S,4S)-Bicyclo[2.2.1]heptane-3-carboxylic acid	1-Chlorobutan-2-yl hydrogen carbonate	2H-Oxazine-3-carboxylic acid	2,2-Bis(fluoromethyl)cyclopropane-1-carboxylic acid
Fosfomicina	2-Bromo-4-methylpent-4-enoic acid	4-(Vinylxy)butyric acid	3-Methyl-2H-pyridine-3-carboxylic acid
3-Aci-nitropropanoic acid	1,1,1-Trifluoropropan-2-yl hydrogen carbonate	(E)-3-Propan-2-yloxyprop-2-enoic acid	(2R,3S)-3-Methyloxolane-2-carboxylic acid
3,3-Dichloro-propanoic acid	2,2,3-Trifluoro-3-hydroxyhexanoic acid	4-Thiazolecarboxylic acid, 2-methoxy-	(1R,2R)-2-(Bromomethyl)cyclopropane-1-carboxylic acid
(2Z)-2-Hydrazinylidenepropanoic acid	2-Methyl-3-(methyldiazenyl)propanoic acid	(E)-4-Chloro-3-methoxybut-2-enoic acid	(3S)-3-Hydroxycyclohexane-1-carboxylic acid
(1S,2S)-Cyclopropane-1,2-dicarboxylic acid	3-(1,3-Dioxolan-2-yl)-2,2-difluoropropanoic acid	2-Nitro-2,2-bis(sulfanyl)acetic acid	(1S)-2-Methylcyclopropane-1-carboxylic acid
5-Methylthiophene-2-carboxylate	3,3-Dideuterio-2-(trideuteriomethyl)prop-2-enoic acid	3-Bromooxy-3-oxopropanoic acid	(2S)-2-(Pyrazol-1-ylamino)propanoic acid
Mono-Methyl Succinate	Tritio 2-methylprop-2-enoate	2-Phosphooxypropanoic acid	5-Oxa-thiomorpholine-3-carboxylic acid
(2S)-2-(Propan-2-ylideneamino)oxypropanoic acid	Carbamoyl-(carboxymethyl)-dimethylazanium	2-Methyl-3H-thiophene-2-carboxylic acid	3-Cyanooxirene-2-carboxylic acid
(E)-4-Oxopent-2-enoate	2-Sulfanyl-2-sulfanyloxypropanoic acid	(E)-5-Hydroxypent-3-enoic acid	2-Fluoro-2-(1-fluorocyclopropyl)cyclopropane-1-carboxylic acid
Pent-2-enedioate	3-Chloropent-2-enoic acid	2-[Carboxymethyl(fluoro)amino]acetic acid	(3-Methyl-1,2-oxazol-4-yl) hydrogen carbonate
6-Chloropyridine-3-carboxylate	4-Amino-2-methyl-4-oxobut-2-enoic acid	(Z)-2-Chloro-3-methoxybut-2-enoic acid	3,4-Dimethylcyclopentane-1-carboxylic acid
1-Methylcyclohexane-1-carboxylate	4-Amino-2-fluoro-4-oxobut-2-enoic acid	3-Fluorooxycarbonylbut-3-enoic acid	3-Cyclopropylidene-3-hydroxy-2-oxopropanoic acid
4-Methylidene-5-oxofuran-3-carboxylate	4-Chloro-3,4,4-trifluorobut-2-enoic acid	2-(Chloromethyl)butanedioic acid	(2S)-3-Methyl-1-phosphanylpiperidine-2-carboxylic acid
m-Methylbenzoate	Carboxyoxymethyl acetate	2,2-Dichloroethyl hydrogen carbonate	(4R)-4-Methyl-3,4-dihydro-2H-pyrrole-5-carboxylic acid

3-(Chloromethyl)benzoate	2-[(2-Aminoxyacetyl)amino]acetic acid	4,5-Dihydrofuran-2-carboxylic acid	(3R)-3-Methyl-1-phosphanylpyrrolidine-2-carboxylic acid
2-Cyclopentylacetate	2,6-Dioxohexanoic acid	1-(Furan-2-yl)cyclopropane-1-carboxylic acid	(3S)-3-Methyl-1-phosphanylpyrrolidine-2-carboxylic acid
(1R,2R)-Cyclopropane-1,2-dicarboxylic acid	2-Cyanoethyl hydrogen carbonate	Acetoamidocyanoacetate	(2S,3R)-3-Methyl-1-phosphanylpyrrolidine-2-carboxylic acid
(S)-(-)-Methylsuccinic acid	3-Methyldioxirane-3-carboxylic acid	5-Methyloxazole-4-acetic Acid	4H-Azepine-3-carboxylic acid
6-Methylnicotinate	5-Hydroxypent-2-enoic acid	5-Aminofuran-3-carboxylic acid	3,4-Dihydro-2H-azepine-3-carboxylic acid
3-Sulfidobenzoate	4-(2-Methyloxiran-2-yl)but-2-enoic acid	[2-(Dimethylamino)-2-oxoethyl]phosphonic acid	5H-Diazepine-4-carboxylic acid
3-Acetamidopropanoate	5-Iminopentanoic acid	2,3,3,4,4,4-Hexafluorobutanoic acid	5,6-Dihydro-4H-diazepine-4-carboxylic acid
2-[(1S)-Cyclopent-2-en-1-yl]acetic acid	2-(Methyldiazenyl)propanoic acid	2-Methyloxirane-2,3-dicarboxylic acid	(6S)-2-Oxobicyclo[3.1.0]hexane-6-carboxylic acid
2-[(1R)-Cyclopent-2-en-1-yl]acetic acid	[[2-(Hydroxyamino)-2-oxoethyl]amino]phosphonic acid	(Sulfanylamino)sulfanylformic acid	2-(1,3-Oxathiolan-2-yl)acetic acid
2,3-Difluorobenzoate	4-Ethoxybut-2-ynoic acid	2-Isocyanatoethanesulfonic acid	1,3-Thiazol-4-yl hydrogen carbonate
Acetoacetate	2-Oxo-1,3-dihydropyrrole-4-carboxylic acid	Carboxymethyl-hydroxy-oxophosphonium	2-(2-Methylidenecyclopropyl)propanoic acid
2-[Carbamoyl(methyl)amino]acetate	1-Fluoropropyl hydrogen carbonate	[(Trimethylsilyl)oxy]acetic acid	2-Methyl-5H-1,3-thiazole-2-carboxylic acid
(R)-3-Hydroxybutyrate	3,3-Difluorocyclohexanecarboxylic acid	Tetrahydro-2H-thiopyran-2-carboxylic acid	1,3-Oxazepane-4-carboxylic acid
3-Nitropropanoate	(3R)-2,2,3-Trimethylcyclopropane-1-carboxylic acid	Tetrahydro-2H-thiopyran-3-carboxylic acid	2H-1,4-Thiazine-3-carboxylic acid
4-Amino-4-oxobut-2-enoate	5-Aminoxy-5-oxopentanoic acid	3-[Ethyl(hydroxy)phosphoryl]propanoic acid	4-(113C)Methylbenzoic acid
3-(Carbamoylamino)propanoate	(2R)-2-(Fluoroamino)propanoic acid	4-Methoxy-2-sulfanylbutanoic acid	CID 66995527
(S)-3-Hydroxybutyrate	Deuterio (2S)-2-(fluoroamino)propanoate	6-Chloro-2-methylpyrimidine-4-carboxylic acid	Oxazepane-6-carboxylic acid
1H-Pyrazole-5-carboxylate	2-Methyl-3-(3-methyloxiran-2-yl)prop-2-enoic acid	2-(1H-1,2,3-Triazol-1-yl)acetic acid	(1S)-2-Chloro-2-fluorocyclopropane-1-carboxylic acid
1-Methyl-1H-pyrazole-4-carboxylate	(3R)-3-Amino-4-oxobutanoic acid	4-Cyano-2-hydroxybutanoic acid	(1S)-2-Fluorocyclopropane-1-carboxylic acid
5-Methyl-1,2-oxazole-4-carboxylate	(1S)-Cyclopropane-1,2-dicarboxylic acid	Acetyl-(carboxymethyl)-dimethylazanium	[(3R)-Oxolan-3-yl] hydrogen carbonate
Pyrimidine-5-carboxylate	3-Hydroxyprop-1-enylphosphonic acid	4-Bromo-5-oxopentanoic acid	1-Chloro-3-methylidenecyclobutane-1-carboxylic acid
(2R)-4-Amino-2-ammonio-4-oxobutanoate	(3S)-3-Cyano-3-(hydroxyamino)propanoic acid	2,2,3,3-Tetrafluoro-3-fluorosulfonylpropanoic acid	(5-Chloro-1-methyl-1H-pyrazol-4-yl)acetic acid
3-(Methylsulfanyl)propanoate	2,3-Difluorobutanoic acid	3-Carbonochloridoysulfanylpropanoic acid	2-Oxo-1,3-dioxane-4-carboxylic acid
3-Chloropropanoate	3-(Dimethylamino)-2-isocyanoprop-2-enoic acid	(E)-2-Sulfanylhex-4-enoic acid	3,4-Dihydro-2H-pyran-3-carboxylic acid
Oxane-4-carboxylate	(2R,5R)-5-(Sulfanylmethyl)thiolane-2-carboxylic acid	2-Chlorocyclohex-2-ene-1-carboxylic acid	3-Fluoro-4-hydroxycyclopentane-1-carboxylic acid
(2S)-2-[[2(2S)-2-Azaniumylpropanoyl]amino]propanoate	2-[Methyl(2-oxoethyl)amino]acetic acid	3-Chlorocyclohexene-1-carboxylic acid	1,3-Oxathiane-5-carboxylic acid

2-Acetamido-2-propenoate	2-Oxaldehydoyloxyacetic acid	2-Fluoro-3-sulfanylpropanoic acid	2-(2-Methylcyclopropyl)propanoic acid
3-Bromopropanoate	2-(1-Fluoroethylideneamino)acetic acid	3-Methyl-4-oxoazetidine-2-carboxylic acid	1,3-Oxathiolane-4-carboxylic acid
Trichloroacrylate	3,4-Dihydropyridine-5-carboxylic acid	2,2,3-Trifluorosuccinic acid	2-(Oxan-3-yloxy)acetic acid
3-Bromomethylpropionate	3-Formamidobut-2-enoic acid	2,3,4,4-Tetrachlorobutanoic acid	2-Fluoro-3-methylisonicotinic acid
3-Bromopropylacetate	5-Oxaproline	Pyridine-3-carbodithioic acid	1-Chloropyrrole-3-carboxylic acid
5-Chloronicotinate	4-Methoxypent-3-enoic acid	2-Hydroxy-3-methoxy-2-methyl-3-oxopropanoic acid	3-Hydroxy-4-methylcyclopentane-1-carboxylic acid
But-2-ynoate	5-Hydroxy-2-methylpent-2-enoic acid	Prop-2-enylsulfanylformic acid	2-Methyl-4-oxo-3H-pyran-2-carboxylic acid
Succinamate	1-Cyclopropylethyl hydrogen carbonate	2,2,3,3-Tetrafluorobutanoic acid	(4-Methylthiophen-2-yl) hydrogen carbonate
Butanedioic acid, methylene-, 4-methyl ester	1-Chloropropan-2-yl hydrogen carbonate	Hydroxy-oxo-(phosphonomethyl)phosphonium	2-(2-Oxopyrrolidin-1-yl)oxyacetic acid
beta-Alanyl-L-alanine	2-Chlorobutan-2-yl hydrogen carbonate	3-Trichlorosilylpropanoic acid	3-(1-Bromocycloprop-2-en-1-yl)propanoic acid
(1S,2S)-2-Methylcyclopropane-1-carboxylic acid	(1-Chloro-2-methylpropyl) hydrogen carbonate	2-Trichlorosilylacetic acid	(3S)-3-Hydroxycyclopentane-1-carboxylic acid
(1S,2R)-2-Methylcyclopropane-1-carboxylic acid	3-Dihydroxyphosphinothiylpropanoic acid	2-Fluoro-2-iodo-1-methylcyclopropane-1-carboxylic acid	1-Chloro-5-methylpyrrole-2-carboxylic acid
cis-2-Methylcyclopropanecarboxylic acid	Fluoromethyl hydrogen carbonate	2-Fluoro-2-iodocyclopropane-1-carboxylic acid	1,3-Oxazol-4-yl hydrogen carbonate
trans-2-Methylcyclopropanecarboxylic acid	4-Chloro-3-methoxybut-2-enoic acid	2-(Disulfanyl)acetic acid	1-[(Nitrooxy)methyl]cyclopropane-1-carboxylic acid
Butanedioic acid, ethyl-, (S)-	3-Propanoyloxypropanoic acid	2-Bromo-3,3-dimethoxypropanoic acid	(1S,2S)-2-(Methoxymethyl)cyclopropane-1-carboxylic acid
(E)-Hex-2-enoate	(2S,3S)-3-Carbamoyloxirane-2-carboxylic acid	2-(Methylsulfonyl)propanoic acid	Pyridazin-3-yl hydrogen carbonate
2-Ethoxyacetate	2-Chlorooxyiminoacetic acid	Thieline-2-carboxylic acid	2-Methyl-2-[(Z)-prop-1-enyl]cyclopropane-1-carboxylic acid
Pent-4-ynoate	4-Chloro-2,2-dimethylbut-3-enoic acid	Carbonic acid dichloromethyl ester	(1R,2S)-2-Propanoylcyclopropane-1-carboxylic acid
(S)-2-Chlorobutyric Acid	Hexa-2,3,4-trienoic acid	2-Hydroxyphosphanylacetic acid	(1S,2R)-2-Acetylcyclopropane-1-carboxylic acid
(S)-1-Methyl-2,2-dichlorocyclopropanecarboxylic acid	2-Methyl-1,3-oxathiane-4-carboxylic acid	2-(2-Chloro-2-oxoethoxy)acetic acid	(6S)-2-Oxabicyclo[3.1.0]hexane-6-carboxylic acid
4,4,4-Trifluorobutanoate	2-(Methoxysulfinylamino)propanoic acid	2-Cyanatoacetic acid	[(1S)-2,2-Dimethylcyclopropyl] hydrogen carbonate
L-Alanine, N-(N-methylglycyl)-	2-(2-Fluoroethoxyimino)acetic acid	2-[Chloro(hydroxy)amino]acetic acid	5-Oxo-1,2-dihydropyrrole-3-carboxylic acid
2-Methylsulfonylacetate	2-Methyl-4-oxohexa-2,5-dienoic acid	(Ethylsulfinyl)acetic acid	4-Oxa-1-azabicyclo[3.2.0]hept-2-en-2-yl hydrogen carbonate
Trifluoromethylacetate	2-Amino-5-phosphanylpentanoic acid	3-Propan-2-ylsulfinylpropanoic acid	1,4-Thiazepine-7-carboxylic acid
(R)-4,4,4-Trifluoro-3-methylbutanoic acid	3-(Ethylideneamino)propanoic acid	3-(Propane-1-sulfinyl)-propionic acid	2-Acetyl-1-methylcyclopropane-1-carboxylic acid
2-(Trifluoromethyl)prop-2-enoate	3-Nitrososulfinylbutanoic acid	2-Thionitrosoacetic acid	(5-Methyl-1,3-dioxan-5-yl) hydrogen carbonate
(2R)-5-Oxopyrrolidine-2-carboxylate	3-Furancarboxylic acid, 4-hydroxy-	2-(4,5-Dihydro-1,2-oxazol-5-yl)acetic acid	(6-Methylpyrazin-2-yl) hydrogen carbonate

(3S)-1-Methyl-5-oxopyrrolidine-3-carboxylic acid	2-Chloro-3-(oxiran-2-yl)propanoic acid	2-Furanacetic acid, 3-methyl-	2-Methyl-3,4-dihydropyridine-5-carboxylic acid
(3R)-1-Methyl-5-oxopyrrolidine-3-carboxylic acid	3-[Carbamoyl(methyl)amino]propanoic acid	3-Fluoroenanthic acid	7-Oxabicyclo[2.2.1]heptan-2-yl hydrogen carbonate
5-Azaniumyl-4-oxopentanoate	3-Ethoxypropyl hydrogen carbonate	2-(2-Fluoroethoxy)acetic acid	(R)-3,3-Difluorocyclopentanecarboxylic acid
(2S,3S)-2,3-Dimercaptobutanedioic acid	2-Ethylperoxypropanoic acid	2-(2-Oxoazetidin-1-yl)propanoic acid	1-Phosphanylpyrrole-3-carboxylic acid
(4R)-4-Hydroxyheptanoic acid	2-Iodoethyl hydrogen carbonate	1,3-Dioxolan-4-ylmethyl carbonochloride	1-[(Carbamoylamino)methyl]cyclopropane-1-carboxylic acid
3-Mercaptopropionate	2-Methyl-3-(3-methyloxiren-2-yl)prop-2-enoic acid	2-Hydroxyethyl hydrogen oxalate	2-(3-Oxocyclobutyl)acetic acid
(2R)-2-Sulfanylpropanoic acid	2-Oxohex-3-enedial	4-Amino-3,4-dioxobutanoic acid	2,3-Dihydropyridine-4-carboxylic acid
Cyclohexene-1-carboxylate	4-Methylsulfanylbut-2-enoic acid	4-Chloro-4,4-difluorobutyric acid	1-Chloro-4-fluorocyclohexane-1-carboxylic acid
Cycloheptanecarboxylate	6-Oxa-1-azabicyclo[3.1.0]hexane-2-carboxylic acid	2-Cyanocyclopropanecarboxylic acid	1,3-Dichlorocyclopentane-1-carboxylic acid
(S)-(-)-3-Cyclohexenecarboxylic acid	2-(2-Sulfanylacetyl)oxyacetic acid	2-(5-Methyl-2,3-dihydrofuran-3-yl)acetic acid	1,3-Dichlorocyclobutane-1-carboxylic acid
2-(2-Oxopyrrolidin-1-yl)acetate	5-Chlorohex-2-enoic acid	2-(Dimethylamino)ethyl hydrogen carbonate	1-Chloro-3-fluorocyclopentane-1-carboxylic acid
(5S)-5-Hydroxyhexanoic acid	[Acetyl(methyl)amino]phosphonic acid	2-(2,2,2-Trichloroethoxy)acetic acid	2-(18F)Fluoranylcyclopropane-1-carboxylic acid
(5R)-5-Hydroxyhexanoic acid	2-Methoxy-4-oxobutanoic acid	5-Oxazolecarboxylic acid, 2-(chloromethyl)-	3-(18F)Fluoranylcyclobutane-1-carboxylic acid
(Z)-3-Acetamidobut-2-enoic acid	4-Methylidenecyclohexa-1,5-diene-1-carboxylic acid	1-Hydroxypropyl hydrogen carbonate	2-Oxopyran-4-carboxylic acid
(2S)-5-Oxo-2-oxolanecarboxylate	3-Nitrosopropanoic acid	3-Formamido-2-hydroxypropanoic acid	(4-Oxo-3H-pyridin-5-yl) hydrogen carbonate
(S)-4,4,4-Trifluoro-3-methylbutanoic acid	4-Chloro-1,2-thiazole-3-carboxylic acid	3-Trimethylsilylbutanoic acid	4-Phosphanylcyclopenta-1,3-diene-1-carboxylic acid
(1S)-2,2-Difluorocyclopropane-1-carboxylic acid	2,3-Dimethyl-4-oxopent-2-enoic acid	2-(Methoxyamino)acetic acid	5-Methylidene-4H-pyridazine-6-carboxylic acid
(2R,3R)-Oxirane-2,3-dicarboxylate	5-Methyl-3,4-dihydropyrazole-5-carboxylic acid	2-(1,2-Oxazolidin-5-yl)acetic acid	2-(4-Iodo-3-methyl-1,2-oxazol-5-yl)acetic acid
(2R,4S)-4-Fluoro-5-oxopyrrolidine-2-carboxylic acid	Fluorothreonine	3,3,4-Trifluoro-2-methylidenebutanoic acid	2-Prop-1-enylcyclopropane-1-carboxylic acid
(2S,4S)-4-Fluoro-5-oxopyrrolidine-2-carboxylic acid	3-Iodopropyl hydrogen carbonate	(2-Methylpropan-2-yl)oxy hydrogen carbonate	2-(3-Methylideneoxolan-2-yl)acetic acid
(2R)-2-Methyloxolane-2-carboxylic acid	4-(Carbamothioylamino)-4-oxobut-2-enoic acid	Carboxy 2-methylprop-2-enoate	(1S)-1-Chloro-2,2-dimethylcyclopropane-1-carboxylic acid
(2S)-2-Methyloxolane-2-carboxylic acid	2,3,4,4-Tetrachloro-2-butenic acid	Oxiranepropanoic acid, 3-methyl-, trans-	(1,3-Dimethylpyrazol-4-yl) hydrogen carbonate
2-[(2R)-Oxolan-2-yl]acetic acid	2-[Ethyl(methyl)phosphanyl]acetic acid	3-Chloro-2,2-dimethyl-3-oxopropanoic acid	(2S)-2-Methoxycarbonylcyclopropane-1-carboxylic acid
2-[(2S)-Oxolan-2-yl]acetic acid	[3-(2-Methylprop-2-enyl)dioxiran-3-yl] hydrogen carbonate	Nitrosulfone	2,5-Dimethyl-4H-1,3-oxazole-5-carboxylic acid
2-Methylfumarate	2-[Methoxysulfinyl(methyl)amino]propanoic acid	3-Sulfanylidenebutanoic acid	2H-1,4-Thiazine-2-carboxylic acid

3-Chloroacrylate	4-Methoxyoxetane-2-carboxylic acid	Phosphomethylphosphonic acid	2-Propanoylcyclopropane-1-carboxylic acid
(Z)-3-Chloroprop-2-enoate	3-Chloro-3-methyl-4-oxobutanoic acid	2-(5-Mercapto-5-tetrazolyl)acetic acid	2,3-Dimethylcyclobutane-1-carboxylic acid
(E)-4,4,4-Trifluorobut-2-enoate	4-Methoxy-2-oxobut-3-enoic acid	4-Formylcyclopent-2-ene-1-carboxylic acid	2-Cyano-2-methylcyclopropane-1-carboxylic acid
Glycylcysteine	3-Acetyloxybut-2-enoic acid	2-(Dimethylcarbamoyloxy)acetic acid	2-Ethyl-3-methylcyclopropane-1-carboxylic acid
(2R)-2-(Propan-2-ylideneamino)oxypropanoic acid	(2S)-2-Acetyloxy-3-chloropropanoic acid	Dithiine-4-carboxylic acid	4-Chloro-1,3-oxazole-2-carboxylic acid
(R)-4,4,4-Trifluoro-2-methylbutanoic acid	2-(Propyldiazenyl)propanoic acid	(3-Propyldioxiran-3-yl) hydrogen carbonate	1-Chloropyrazole-4-carboxylic acid
2-Furanpropanoic acid, tetrahydro-, (2R)-	2-(2-Fluorothiophen-3-yl)acetic acid	2-(3-Chloropropoxy)acetic acid	3,5-Dimethyl-2,4-dihydropyrimidine-5-carboxylic acid
Acetyl acrylic acid	3-[Ethyl(formyl)amino]propanoic acid	Acetic acid, fluorophosphono-	(6S)-2-Thiabicyclo[3.1.0]hex-3-ene-6-carboxylic acid
4-Oxobutanoate	1-(2-Aminoacetyl)oxycyclopropane-1-carboxylic acid	4-Hydroxybutyl hydrogen carbonate	(6S)-4-Oxobicyclo[3.1.0]hex-2-ene-6-carboxylic acid
N-Carboxyglycine	4-Diazo-3-oxobutanoic acid	2-Aminooxyprop-2-enoic acid	(6S)-4-Oxo-2-thiabicyclo[3.1.0]hexane-6-carboxylic acid
1H-Pyrrole-2-carboxylic acid, 4,5-dihydro-5-oxo-	[(1S)-1-Carboxyethyl]-trimethylazanium	5-Chloro-2,2-dimethyl-4-oxopentanoic acid	(4S,6S)-4-Hydroxy-2-thiabicyclo[3.1.0]hexane-6-carboxylic acid
3-Fluoro-cis,cis-muconate	4-Ethoxypent-2-enoic acid	2-Methyl-2-fluoromalonic acid	2,5-Dihydrothiazepine-4-carboxylic acid
5-Oxopentanoate	3-Formamidobutanoic acid	3-Methyl-4-oxopentanoate	(2-Methylfuran-3-yl) hydrogen carbonate
(1S,2S)-2-Fluorocyclopropanecarboxylic acid	2-[Fluoro(methyl)amino]-2-methylpropanoic acid	7-Oxa-3-azabicyclo[4.1.0]heptane-4-carboxylic acid	Oxolan-3-ylmethyl hydrogen carbonate
2-[(2S)-Oxiran-2-yl]acetic acid	(4E)-5-Bromopent-4-enoic acid	2-Ethoxyethyl hydrogen carbonate	3-(3-Methyloxetan-3-yl)propanoic acid
1-(Mercaptomethyl)cyclopropanecarboxylic acid	3-Nitrobut-2-enoic acid	4-Cyclopropylbutanoic acid	(1R,5S)-3-Oxabicyclo[3.1.0]hexane-2-carboxylic acid
3-Nitrooxybut-3-enoic acid	2-[(5S)-3,4-Dimethyl-4,5-dihydro-1,2-oxazol-5-yl]acetic acid	3-Isocyanatopropanoic acid	(3R,5S)-5-Hydroxyoxane-3-carboxylic acid
(S)-Chlorosuccinic acid	2-Cyclopropylethyl hydrogen carbonate	4-Isocyanatobutanoic acid	cis-5-Hydroxytetrahydropyran-3-carboxylic acid
3-Chloro-5-isoxazoleacetic acid	2-Acetyloxy-2-chloroacetic acid	3-Methyl-2-oxopyrimidine-4-carboxylic acid	5-Oxooxane-3-carboxylic acid
4-(Bromoamino)-4-oxobutanoic acid	4-Iodobut-2-enoic acid	(Z)-2-Fluoropent-2-enoic acid	(5-Chloro-2H-triazol-4-yl) dihydrogen phosphate
Peroxydicarbonic acid	5-Sulfanylidene-pent-2-enoic acid	4,4-Difluoro-2-methylidenebutanoic acid	1-Oxo-1λ~4~-thiane-4-carboxylic acid
Ethenyl hydrogen carbonate	1,4-Dioxaspiro[2.2]pentane-2-carboxylic acid	1-Chloroethyl hydrogen carbonate	1-Prop-2-enoylcyclopropane-1-carboxylic acid
4-Dimethylsulfoniobutanoate	(1R,2R)-2-Acetylcyclopropane-1-carboxylic acid	2-Nitroprop-2-enoic acid	(1-Methylcyclopropyl) hydrogen carbonate
4-(Dimethylsulfonio)butyric acid anion	3-Prop-2-enoxyprop-2-enoic acid	3-Bromo-2H-pyridine-3-carboxylic acid	2-(1-Methylcyclohexa-2,4-dien-1-yl)acetic acid
2-Dimethylsulfonio-2-methylpropanoate	Phosphorosulfanylformic acid	Sodium; 4-hydroxy-but-2-enoate	2-(2-Bicyclo[2.1.1]hexanyl)acetic acid
2-Methoxy-2-methylpropanoic acid	3-Fluoro-2-methylpropanoic acid	3,3-Difluoro-2,2-dimethylbutanoic acid	1,3-Dioxepine-5-carboxylic acid
Propanoic acid, 3-(nitrosothio)-	(2S)-2-(But-2-enoylamino)propanoic acid	3-Chloro-2-methylbutanoic acid	2,5-Dihydrooxazepine-4-carboxylic acid
3-Formyloxy-3-methylbutanoic acid	2-(Cyanomethylidene)butanoic acid	3-Chloro-2,2-dimethylbutanoic acid	4,5-Dihydrooxazepine-4-carboxylic acid

(3,3-Difluoro-2-hydroxypropyl) dihydrogen phosphate	4-Nitrosobutanoic acid	2-Ethenoxyacetic acid	(4-Methyl-1,3-thiazol-5-yl) hydrogen carbonate
2-Methylidene-4-oxobutanoic acid	But-2-enyl hydrogen carbonate	Thiophen-2-yl hydrogen carbonate	2,5-Dimethyl-2H-pyrrole-3-carboxylic acid
2-(Oxiran-2-yl)acetic Acid	(Methoxycarbonylamino)methanesulfonic acid	(3-Methylthiophen-2-yl) hydrogen carbonate	Oxathiinecarboxylic
4-Cyano-3-hydroxybutanoic acid	3-Methoxybutyl hydrogen carbonate	2-Phosphanyloxypropanoic acid	1-(Difluoromethyl)cyclopropanecarboxylic acid
3-Methyloxirane-2-sulfonic acid	2-Oxo-1,3-dioxolane-4-carboxylic acid	2-Phosphanyloxyacetic acid	(2S)-5-Methoxy-3,4-dihydro-2H-pyrrole-2-carboxylic acid
5-Oxo-3,4-dihydropyrrole-2-carboxylic acid	2-[Fluoro(methyl)amino]acetic acid	3-Phosphanyloxybutanoic acid	trans-2-Cyanocyclopropane-1-carboxylic acid
3-Mercaptobutanoic acid	2-Fluoro-4,4-dimethylpent-2-enoic acid	3-Phosphanyloxypropanoic acid	2-(3,4-Dihydropyridin-5-yl)acetic acid
(3-Carboxy-3-oxopropyl)-methyl-oxophosphonium	Carboxy propyl carbonate	4,4,4-Trifluoro-2-methylidenebutanoic acid	[(2R)-Oxolan-2-yl] hydrogen carbonate
3-Fluoro-2-oxobutanoic acid	2,2,3-Trichlorobut-3-enoic acid	2-Chloro-2-sulfanyloxypropanoic acid	2-(5-Oxo-1,3-dioxolan-4-ylidene)acetic acid
5-Amino-4-oxo(113C)pentanoic acid	2-Methylsulfanylethyl hydrogen carbonate	(E)-4-Chloro-2-methylpent-2-enoic acid	6-Bicyclo[3.1.0]hexanyl hydrogen carbonate
(1R,2R)-2-Fluorocyclopropanecarboxylic acid	2-Cyclopropyl-2-methylpropanoic acid	5,6,6-Trifluorohexanoic acid	3,4-Dihydro-2H-pyran-6-yl hydrogen carbonate
(S)-2-(Methoxycarbonylamino)butanoic acid	Propan-2-ylsulfanylformic acid	2-(2,2-Dichloroethyl)cyclopropane-1-carboxylic acid	2-Oxidooxadiazol-2-ium-4-carboxylic acid
2-(Dithiolan-4-yl)acetic acid	6-Hydroxyhex-2-enoic acid	2-Isocyanopropanoic acid	2-(3-Methylpyrazol-3-yl)acetic acid
beta-Methoxyacrylic acid	5-Chloropent-3-enoic acid	(3-Methyloxiran-2-yl)methyl dihydrogen phosphate	1-Oxo-3,6-dihydro-2H-1,4-thiazine-5-carboxylic acid
(3R)-3-Hydroxy-4-[(2S)-oxiran-2-yl]butanoic acid	5-Cyanopenta-2,4-dienoic acid	3-Fluorobut-3-enoic acid	1,2-Difluorocyclobutane-1-carboxylic acid
(R)-Tetrahydro-2H-thiopyran-3-carboxylic acid	2,5-Dimethyl-1,3-dioxane-5-carboxylic acid	1,2-Dioxine-3-carboxylic acid	2-(Oxetan-3-ylmethyl)prop-2-enoic acid
2-(Carbamoylamino)-3-sulfanylpropanoic acid	3-(Chloromethyl)pentanoic acid	3-(Dimethylphosphinyl)-2-methylpropionic acid	2-Methyl-3-(oxetan-3-yl)prop-2-enoic acid
4,4,4-Trifluoro-2,2-dimethylbutanoic acid	(2,2-Dichloro-1-methylcyclopropyl) hydrogen carbonate	5-Methyl-1,3,4-oxadiazole-2-carboxylic acid	6-Methyloxazinane-3-carboxylic acid
5-Hydroxy-4-oxopentanoic acid	4-Aminooxybut-2-enoic acid	Malonamate	2-(Oxetan-2-yl)prop-2-enoic acid
4-[Hydroxy(methyl)phosphoryl]butanoic acid	Cyclobutyl hydrogen carbonate	2-(4,5-Dihydrotriazol-1-yl)acetic acid	3-(Oxetan-2-yl)prop-2-enoic acid
trans-2-Fluorocyclopropanecarboxylic acid	2-[Chloro(difluoro)methyl]prop-2-enoic acid	4-Isocyano-2-methylidenebutanoate	(1S)-1,2,2-Trimethylcyclopropane-1-carboxylic acid
4-(Hydroxyamino)butanoic Acid	2-Fluoro-3-methylbut-2-enedioic acid	4-Isocyano-2-methylidenebutanoic acid	(2E)-2-(2-Oxocyclopentylidene)acetic acid
2,2-Difluoro-2-methoxyacetic acid	Cyclopropylmethyl hydrogen carbonate	3-Hydroperoxy-3-oxopropanoic acid	(E)-2-(2-Oxocyclopentylidene)acetic acid
2-Hydroxy-4-oxopentanoic acid	2,5-Dihydropyridine-3-carboxylic acid	2-(Propan-2-ylamino)oxyacetic acid	1-[(1R)-1-Hydroxypropyl]cyclopropanecarboxylic acid
N-Hydroxy-5-aminopentanoic acid	Hexa-2,5-dienoic acid	3-Carbamoylbut-3-enoic acid	(2S)-2-Fluoro-3-oxopiperidine-1-carboxylic acid
5-Cyano-4-oxopentanoic acid	N-(2,3-Dioxopropyl)acetamide	Penta-2,3,4-trienoic acid	2-Azabicyclo[3.1.0]hexa-1,3,5-triene-4-carboxylic acid

2-Fluorocyclopropanecarboxylic acid	4-Cyano-2-methylidenepentanoic acid	4-Chloro-3-methoxybutanoic acid	(3-Chlorothiophen-2-yl) hydrogen carbonate
3-(Hydroxyamino)propanoic Acid	2-Butenoic acid, 4-amino-2,3-dichloro-4-oxo-, (Z)-	3-(Chloromethyl)cyclopentane-1-carboxylic acid	2-Oxooxane-4-carboxylic acid
4,5-Dihydro-4-thiazolecarboxylic acid	3-(3-Oxopropylsulfanyl)propanoic acid	Carboxy formate	1,3-Oxazepine-2-carboxylic acid
Difluoromalonic acid	Carboxy 2-hydroxypropanoate	1,1,2-Trichloroethyl hydrogen carbonate	2-Oxo-3H-furan-5-carboxylic acid
4-Carboxyperoxybutyric acid	Ethyl 2-carboxyoxoacetate	3,3,4,4-Tetrachlorobutanoic acid	(4S)-4-Hydroxycyclopentene-1-carboxylic acid
2-Propenoic acid, 3,3-difluoro-2-(trifluoromethyl)-	1,3-Dimethylcyclobutane-1-carboxylic acid	2-Sulfamoylpropanoic acid	4-Hydroxycyclopentene-1-carboxylic acid
(2S)-2-(2,3-Dioxaziridin-1-yl)propanoic acid	2-Hydroxy-1,3-oxazole-5-carboxylic acid	2-Ethyl-2-methyl-3-oxobutanoic acid	(5-Chloro-1-methylpyrazol-4-yl) hydrogen carbonate
(2Z)-3-Cyclopropyl-2-propenoic acid	3,3-Difluoro-2-oxopropanoic acid	Carboxy ethaneperoxoate	Phosphinane-4-carboxylic acid
(S)-2-Amino-4-cyanobutyric acid	3-Methylidenecyclohexa-1,5-diene-1-carboxylic acid	2-(Dioxolan-3-yl)acetic acid	4,5-Difluoronicotinic acid
(1s,2r)-2-Chloro-2-fluorocyclopropanecarboxylic acid	4-Hydroperoxy-4-oxobut-2-enoic acid	3-Butenoic acid, 3-(trifluoromethyl)-	2-(4-Methyl-1,2-oxazol-3-yl)acetic acid
4-(Chloroamino)-4-oxobutanoic acid	2-Methyl-5-oxohex-2-enoic acid	Methyl 2,2-difluorosuccinate	(1R)-1-Chloro-2,2-dimethylcyclopropane-1-carboxylic acid
(3S)-3-Chloro-4-methoxy-4-oxobutanoic acid	3H-Azepine-6-carboxylic acid	2-Acetamido-3-chloropropanoic acid	2-Cyanoethenyl hydrogen carbonate
(RS)-(Methylenecyclopropyl)acetic acid	5-Hydroxypent-3-enoic acid	4-Methyl-3-oxopent-4-ene-1-sulfonic acid	(5R)-3-Oxabicyclo[3.1.0]hexane-6-carboxylic acid
5-Amino-4-hydroxy-valeric acid	Carboxyethylphosphoramidate	3-Methyl-5-oxopentanoic acid	2-(2,3-Dihydropyridin-2-yl)acetic acid
3-Carbamoyl-2-methylpropanoic acid	Carboxyoxo ethyl carbonate	4-Chloro-2,2-dimethyl-3-oxobutanoic acid	5-Hydroxyfuran-3-carboxylic acid
2-Oxobicyclo[3.1.0]hexane-6-carboxylic acid	3-Methyliminobutanoic acid	2-Methylpyran-2-carboxylic acid	4-Methoxyfuran-3-carboxylic acid
4-(Dichloroamino)butanoic acid	2-(2,2-Difluoroethenyl)cyclopropane-1-carboxylic acid	3,3-Difluoro-2,2-dimethylpropanoic acid	[(2R)-5-Oxooxolan-2-yl] hydrogen carbonate
(R)-4-Cyano-3-hydroxybutyric acid	3-Amino-3-oxopropanoic acid	2-Formyloxybutanoic acid	Carbonic acid 2,4-cyclohexadienyl ester
3-Chloropentanoic Acid	2-Amino-3-methoxy-2-methyl-3-oxopropanoic acid	2-(Trichloromethyl)prop-2-enoic acid	2,5-Dihydrofuran-2-yl hydrogen carbonate
5,6-Dihydro-2H-thiopyran-3-carboxylic Acid	Carboxy(sulfanyl)carbamic acid	4-Methyl-5-oxooxolane-2-carboxylic acid	2-Oxo-1,3-dioxane-5-carboxylic acid
Succinic acid-1,4- ¹³ C ₂	2,2-Dichloro-3-(oxiran-2-yl)propanoic acid	4-Methyl-5-oxo-pyrrolidine-2-carboxylic acid	(1S,2S)-1,2-Difluorocyclobutane-1-carboxylic acid
2-(2,3-Dioxaziridin-1-yl)acetic acid	2-Acetyloxyiminoacetic acid	(E)-5-Methoxypent-2-enoic acid	(4-Chlorothiophen-2-yl) hydrogen carbonate
(E)-3-(Diethylamino)prop-2-enoic acid	3-Bromo-2-methoxyiminopropanoic acid	3-Disulfanylpropanoic Acid	(1R)-1,2-Dimethylcyclopropane-1-carboxylic acid
(1S,6S)-7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid	2-Oxo-3-cyclopropanepropionic acid	1-Carboxyethyl(diethyl)sulfonium	(1S)-1,2-Dimethylcyclopropane-1-carboxylic acid
2-(Glycyloxy)acetic acid	N-Methyl-1-nitropropan-2-imine	Acetaldehydbisulfite	2-(2-Methyl-4,5-dihydro-1,3-thiazol-5-yl)acetic acid
3-Hydroxy-4-oxopentanoic acid	3-Methyl-1,2-dioxobut-3-ene-1-sulfonic acid	2-(2-Hydroxyethoxy)propanoic acid	4H-1,3,2,4-Dioxadiazine-6-carboxylic acid
Benzoic acid-4- ¹³ C	(1-Chloro-2-methylpropan-2-yl) hydrogen carbonate	3-Methyl-4-oxobutanoic acid	7H-1,4-Oxazepine-4-carboxylic acid
3,3-Dimethoxypropanoic Acid	3-(Carboxyamino)-3-fluoropropanoic acid	2-Iodothiazole-5-carboxylic acid	Cyclopent-2-en-1-yl hydrogen carbonate

(1S,6R)-7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid	5-Chloropent-2-enoic acid	2-Fluorothiazole-5-carboxylic acid	(2Z)-2-Propylidenecyclopropane-1-carboxylic acid
3-Hydroxy-4-oxobutanoic acid	2-Thiothienoic acid	2-Fluoro-4-methyl-1,3-thiazole-5-carboxylic acid	2-Chloro-2-(chloromethyl)cyclopropane-1-carboxylic acid
3-Methylbicyclo[1.1.1]pentane-1-carboxylic acid	3-(Methanesulfonyl)prop-2-enoic acid	3-(Aziridin-1-yl)butanoic acid	3-Methyl-4-oxofuran-2-carboxylic acid
(E)-4-Hydroxy-2-hexenoic acid	3-Formyloxy-2,2-dimethylpropanoic acid	2-[Ethyl(methyl)amino]-2-oxoacetic acid	Oxazepine-5-carboxylic acid
4-Methoxy-2-methylidenebutanoic acid	Acetyl(ethyl)carbamodithioic acid	2-(2H-Pyran-5-yl)acetic acid	1,3-Oxazepine-5-carboxylic acid
1,2,2,3,3,4,4,5,5,6,6-Undecadeuteriocyclohexane-1-carboxylic acid	(Carboxydisulfanyl)formic acid	2,2-Dichloro-3-methylcyclopropane-1-carboxylic acid	2,3,4,5-Tetrahydrooxepine-6-carboxylic acid
3-Chlorobicyclo[1.1.1]pentane-1-carboxylic Acid	(1S,3R)-2,2-Dichloro-3-methylcyclopropane-1-carboxylic acid	2-Methylidene-5-oxopentanoic acid	(2,5-Dimethylfuran-3-yl)hydrogen carbonate
2-Ethyl-4,4,4-trifluorobutanoic acid	4-Chlorohex-2-enoic acid	3-Oxocyclohexanecarboxylate	6H-1,3-Oxazine-4-carboxylic acid
3-Hydroxybut-3-enoic Acid	3-Butenoic acid, 4-methoxy-	3,3-Difluoro-2-methylidenebutanoic acid	Cyclopent-3-en-1-yl hydrogen carbonate
5-Amino-4-(18O)oxidanylidene(113C)pentan(18O2)ic acid	2-(1,5-Dihydrotriazol-2-yl)acetic acid	3,4-Difluoro-2-methylidenebutanoic acid	1,3-Dioxolan-2-yl hydrogen carbonate
1-Methylbicyclo[3.1.0]hexane-6-carboxylic Acid	(3S)-3-Methylcyclopentane-1-carboxylic acid	3,3-Dichloro-2-methylidenebutanoic acid	(2-Methyloxolan-2-yl)hydrogen carbonate
2-Ethenoxyprop-2-enoic acid	3-Deuterio-2,3-difluoroprop-2-enoic acid	3,4-Dichloro-2-methylidenebutanoic acid	(5-Methylfuran-3-yl)hydrogen carbonate
3,3-Difluorohexanoic Acid	2,3-Difluoroprop-2-enoic acid	4-Aminooxy-3-chlorobutanoic acid	3-Chloroazete-2-carboxylic acid
2-Methyl-2-butenedioic acid 4-ethylester	2-Nitrosocyclopropane-1-carboxylic acid	1-Ethenoxycarbonylcyclopropane-1-carboxylic acid	(E)-3-(1-Chlorocyclopropyl)prop-2-enoic acid
(1-Nitroazetidin-3-yl) acetate	3-Acetyloxy-2-oxopropanoic acid	2,2,3-Trifluoro-3-hydroxypropanoic acid	(1R,5R,6R)-6-Fluoro-2-oxobicyclo[3.1.0]hexane-6-carboxylic acid
Phosphonic acid 2-hydroxyethyl ester	Monothioglycine	Citraconamic	(1R,5S,6S)-4-Oxobicyclo[3.1.0]hex-2-ene-6-carboxylic acid
5-Amino-4-oxo(413C)pentanoic acid	6-Oxohex-2-enoic acid	2-Phosphanylbutanedioic acid	(1R,3S)-3-Methylcyclopentane-1-carboxylic acid
2,6-Difluoronicotinic acid	(3-Methyldioxetan-3-yl)hydrogen carbonate	2-(2-Methylaziridin-1-yl)propanoic acid	2-(2-Cyanocyclopropyl)acetic acid
5-Amino-4-oxo(2,3-13C2)pentanoic acid	4-Methoxy-2,3-dimethyl-4-oxobut-2-enoic acid	3-Methyl-4-oxohexanoic acid	4,5-Dihydro-1,3-thiazol-4-yl hydrogen carbonate
2-[[Amino(methyl)carbamothioyl]amino]acetic acid	(2R)-1,3-Oxathiolane-2-carboxylic acid	4-Sulfanylbutyl hydrogen carbonate	2-(Oxetan-2-yl)acetic acid
2,2-Dideuteriopent-4-enoic acid	2-Phosphanylidenebutanoic acid	4-Oxobutane-1-sulfonic acid	2-(1-Chlorocyclohexa-2,4-dien-1-yl)acetic acid
(1R,5S)-Bicyclo[3.1.0]hexane-6-carboxylic acid	2-Bromo-4-oxopentanoic acid	Carboxy sulfite	(4-Methyl-1,3-oxazol-5-yl)hydrogen carbonate
(3S)-3-Bromo-3-carboxypropionic acid methyl ester	3-Methoxypent-2-enoic acid	2-(Bromomethyl)cyclopropane-1-carboxylic acid	2-[(1S)-2-Ethylcyclopropyl]acetic acid
2-(3-Methyl-4,5-dihydro-1,2-oxazol-5-yl)acetic Acid	2-Butenoic acid, 3,4,4-trifluoro-	4-Iminopentanoic acid	3-(3,4-Dihydropyrazol-2-yl)propanoic acid
2-(Phosphorosoamino)acetic acid	(2S)-2-(Dichloroamino)propanoic acid	2-Bromoethyl hydrogen carbonate	2H-Triazol-4-yl hydrogen carbonate

2,2-Difluorohexanoic Acid	2H-1,4-Thiazine-6-carboxylic acid	4-Aminooxy-4-oxobutanoic acid	3-(1-Hydroxycyclopropyl)propanoic acid
3-Thiopheneacetic acid, 2-chloro-	4-Chloro-3-methylbut-2-enoic acid	3,4-Dimethylthiophene-2-carboxylic acid	(2S)-5-Methylideneoxolane-2-carboxylic acid
2,2-Difluoro-3-hydroxy-3-methylbutanoic acid	Acetic acid, (methoxyimino)-	3-Thionitrosopropanoic acid	3-Methanehydrazonoylsulfanylprop-2-enoic acid
3-Methylbutyric-2,2-d ₂ acid	5-Methyl-4-oxohexa-2,5-dienoic acid	3-Cyclopropyloxirane-2-carboxylic acid	(6-Methylpyridin-3-yl)hydrogen carbonate
(3R)-3-Hydroxypent-4-enoic acid	2-Chloro-3-cyanoprop-2-enoic acid	2-Carboxyoxo-2,2-difluoroacetic acid	5-Methylidene-2H-furan-3-carboxylic acid
3-Nitroacrylic acid methyl ester	Mercaptoproline	2-(Triazin-4-yl)acetic acid	2-Methylidene-3H-furan-4-carboxylic acid
(1R,4R)-Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid	4-Fluoro-2,2-dimethylbut-3-enoic acid	[Carboxy(fluoro)methyl]-trimethylazanium	6-Thiabicyclo[3.2.1]octa-1(8),2,4-triene-7-carboxylic acid
(1S,4R)-4-Methoxycarbonylcyclobut-2-ene-1-carboxylic acid	2-Ethenylbut-2-enedioic acid	2-Methyl-2-nitrosopropanoic acid	4,5-Dimethyl-2-prothiophene-3-carboxylic acid
2-(1,2-Dithiolan-3-yl)acetic acid	2,2,3-Trifluorobutanoic acid	4-Hydroxy-3-methylpentanoic acid	(1S)-2-Ethenylcyclopropane-1-carboxylic acid
3-Formylpentanoic acid	4-Aminooxy-3-methyl-4-oxobut-2-enoic acid	1,3-Dithietane-2-carboxylic acid	3-Methyl-2,3-dihydrofuran-2-carboxylic acid
(1S)-4-Methyl-cyclohex-3-enecarboxylic acid	4-Chlorobutyl hydrogen carbonate	2-(Isothiazol-3-yl)acetic acid	(1S)-2-Ethylcyclopropane-1-carboxylic acid
1-Nitro-3,3-dimethoxy-1-propene	4-Methylperoxy-4-oxobut-2-enoic acid	2-Bromo-succinamic acid	(2S)-2-Ethenylcyclopropane-1-carboxylic acid
Mercaptomethyl-succinic acid	2-(Disulfanyl)pyridine-4-carboxylic acid	2-Sulfinylacetic acid	2-(2,3-Dihydrothiophen-3-yl)acetic acid
3,4,5-Trimethylthiophene-2-carboxylic acid	3-Methoxyprop-2-ynoic acid	2-Sulfonylacetic acid	(3S)-2-Chloro-3-methyl-2,3-dihydrothiophene-5-carboxylic acid
(18O ₂)Benzoic acid	5-Bromopent-3-enoic acid	2-(Dioxiran-3-yl)propan-2-yl hydrogen carbonate	2-(2,2,3-Trimethylcyclopropyl)acetic acid
Butanedioic acid, 2-methyl-, 1-methyl ester, (2R)-	6-Hydroxy-4-oxohexanoic acid	3-(2-Sulfanylethoxy)propanoic acid	6-Methylidenecyclohexa-2,4-diene-1-carboxylic acid
5-Sulfanylpentanoic Acid	2-Hydrazinyloxy-2-oxoacetic acid	5-Methoxy-1,2-oxazole-3-carboxylic acid	Acetyloxymethylphosphonic acid
3,5-Dimethyl-4-oxo-4H-pyran-2-carboxylic acid	4-Methoxy-2-methylbut-2-enoic acid	Ethylchloropropionate	5-Fluoro-2-methylpentanoic acid
4-Bromo-3-chloro-3,4,4-trifluorobutanoic acid	6-Bromohex-2-enoic acid	(2E)-Bromohexenoic acid	4-Cyclopropylidenebutanoic acid
2-(Oxiran-2-yl)ethyl nitrate	2-(Disulfanyl)-4-nitropyridine	Cyclopropanecarboxylic acid, 1-(acetylmethylamino)-	Cyclohepten-1-yl hydrogen carbonate
2-(2-Chloroethoxy)acetic Acid	4-Hydroperoxybut-2-enoic acid	Monomethyl (1RS,2RS)-1,2-cyclopropanedicarboxylate	(1S,3R)-2,2,3-Trimethylcyclopropane-1-carboxylic acid
(2S,3R)-3-(Hydroxymethyl)oxirane-2-carboxylic acid	4-Oxocyclohexene-1-carboxylic acid	2,3-Dihydropyridine-3-carboxylic acid	1-[(Z)-1,2-Difluoroethenyl]cyclopropane-1-carboxylic acid
(S)-2-(Acetylthio)propanoic acid	(2S)-4-Ethoxy-2-methyl-4-oxobutanoic acid	4-Hydroxy-2-sulfanylbutanoic acid	3-Propan-2-ylthiirene-2-carboxylic acid
3-(2-Methyl-1,3-dioxolan-2-yl)propanoic Acid	3-Acetyloxy-2-methylprop-2-enoic acid	[Hydroperoxy(hydroxy)phosphoryl]formic acid	2-Cyano-3-cyclopropylacrylic acid
3-(2-Sulfanylethylsulfanyl)propanoic acid	2-Nitrosopropanoic acid	1,2,2-Trimethylcyclopropane-1-carboxylic acid	2-(3-Fluorothiophen-2-yl)acetic acid
3-Cyano-2-methylpropanoic acid	Butanoic acid, 4-amino-3,3-dimethyl-4-oxo-	3-(Trifluoromethyl)oxirane-2-carboxylic acid	[(2S)-2-Methyloxolan-2-yl]hydrogen carbonate
(E)-1-Ethoxy-2-nitroethene	3-[Deuteriomethyl-methyl-(trideuteriomethyl)silyl]propanoic acid	2-Methylsulfonylprop-2-enoic acid	[(2R)-2-Methyloxolan-2-yl]hydrogen carbonate

CID 10942411	Deuterio 3-trimethylsilylpropanoate	2-(Acetyloxyamino)-2-oxoacetic acid	(2,5-Dichlorothiophen-3-yl) hydrogen carbonate
(S)-2-Methyl-4-oxovaleric acid	2-[(2R)-Oxiran-2-yl]propanoic acid	[Hydroxy(hydroxyphosphanyl)phosphanyl]formic acid	1-Chlorocyclopent-3-ene-1-carboxylic acid
2-Cyclohexa-2,4-dien-1-ylacetic acid	Isothiocyanato(methylsulfinyl)methane	3-Methoxybutanoate	(1S,3R)-3-Methoxycyclopentane-1-carboxylic acid
2-Propenoic acid, 2-(trimethylsilyl)-	N-Methyl-1-methylsulfonylpropan-2-imine	2H-Pyran-4-carboxylic acid	N-Cyanomethylglycinate
Carbonic acid allyl ester	3-Methyl-4-oxobut-2-enoic acid	[Tert-butyl(dimethyl)silyl]formic acid	2-Bromo-3-fluoroisonicotinic acid
4-Methyl-5-oxopentanoic acid	4-Cyanobut-2-enoic acid	2-Methyl-5-sulfanylpentanoic acid	5-Bromo-2,2,5,5-tetradeuteriopentanoic acid
2-[Acetyl(ethyl)amino]acetic acid	Amino carboxy carbonate	2-(2,2-Dimethylpropanoyloxy)acetic acid	3,4,5-Trideuteriobenzoic acid
2-(3-Chloropropyl)propenoic acid	(2S)-2-Amino-3-formyloxypropanoic acid	2-(Dioxan-4-yl)acetic acid	3-Hydroxy(1,2,3,4-13C4)butanoic acid
(E)-3-Fluoroprop-2-enoic acid	3-Carbamoyl-3-methylpropanoic acid	1,3-Thiazol-5-yl hydrogen carbonate	2-Acetamido-3,3,3-trideuteriopropenoic acid
5-Oxocyclohex-2-ene-1-carboxylic Acid	3-Fluoro-4-methoxy-4-oxobut-2-enoic acid	2,2-Dichloro-3-oxobutanoic acid	Valeric acid-3,4,5-13C3
2-[(1R,2S)-2-Hydroxycyclopentyl]acetic acid	2-Cyclopropyliminopropanoic acid	2-(1-Methylcyclopentyl)acetic acid	2-Acetamido-2-deuteriopropenoic acid
Cyclohex-2-ene-1-carboxylic Acid	Carboxy cyclopropene-1-carboxylate	4-Isocyanatopent-4-enoic acid	(1,2,3,4,5,6-12C6)Cyclohexatrienecarboxylic acid
N-Acetyl-N-methylglycine	3-(2-Chloroacetyl)oxypropanoic acid	1,2-Dimethylpyridin-1-ium-3-carboxylate	O-Toluic-D7 acid
Cyclohepta-1,3,5-triene-1-carboxylic Acid	3-Methoxybutane-1-sulfonic acid	2-Formamidoethanesulfonic acid	Pentanedioic acid, 3-amino-, monomethyl ester
(1S,2R)-2-(Methoxycarbonyl)cyclopropanecarboxylic acid	5-Oxopent-4-enoic acid	1-Methoxypyrrole-3-carboxylic acid	4-Pentenoic acid, 5-chloro-, (E)-
(R)-2,2-Dimethylcyclopropanecarboxylic acid	5-Oxopent-3-enoic acid	Propan-2-yloxy hydrogen carbonate	S-[2-(Carboxyoxo)ethyl]ethanethioate
(Z)-4-Hydroperoxy-4-oxobut-2-enoic acid	(3S)-4-Chloro-3-(chloroamino)-4-oxobutanoic acid	2-[[[(2R)-2-Azanylpropanoyl]amino]propanoic acid	2-Propenoic acid, 2-phosphono-, 1-methyl ester
3-Bromo-3-fluoropropanoic acid	2-Chloro-4-oxobutanoic acid	(E)-5-Hydroxy-2-methylpent-2-enoic acid	Butanal, 4-ethoxy-2-oxo-
6-Chloro-2-hexenoic acid	2-(2-Hydroxycyclopropyl)prop-2-enoic acid	2-[(2-Methoxyethyl)sulfanyl]acetic acid	Butanedioic acid, bromo-, 4-methyl ester
2-Propenoic acid, 2-methoxy-	2-Methyl-2-(114C)methylpropanedioic acid	(1-Fluoro-2-oxopropyl)phosphonic acid	Butanedioic acid, bromo-, 1-methyl ester
2-(1-Methylcyclopent-2-en-1-yl)acetic acid	(2S)-2-(Methylsulfonylamino)propanoic acid	5,6-Dihydro-1,4-dithiin-2-carboxylic acid	2-Pentenoic acid, 2-fluoro-4-methyl-, (E)-
3-Butenoic acid, 2,3-dimethyl-	2-Propenoic acid, 3-(trimethylsilyl)-, (Z)-	4-Bromo-4-oxobutanoic acid	2-Butenoic acid, 3-hydroxy-4-oxo-, (Z)-
(R)-2-Fluorocaproic acid	3,4-Dihydro-2H-pyrrole-3-carboxylic acid	4H-Pyran-3-carboxylic acid	Thiiranemethanesulfonic acid
2,3-Dichloro-2-fluoropropanoic acid	Lactoyllactic acid	Cyclohex-3-en-1-yl hydrogen carbonate	2,4-Pentadienoic acid, 5-hydroxy-, (2E,4E)-
(S)-2-Amino-4-oxopentanoic acid	3-Nitropropionamide	3H-Dithiole-3-carboxylic acid	Ethenediazonium, 2-carboxy-
(Z)-2-Fluorohex-2-enoic acid	1-(Dihydroxyamino)propan-2-one	2,3,4,5-Tetrahydropyridine-3-carboxylic acid	2,4-Pentadienoic acid, 5-iodo-, (Z,E)-
(S)-2-Fluoropropanoic acid	4,5,6,7-Tetrahydro-3H-diazepine-3-carboxylic acid	2-(1-Sulfanylcyclopentyl)acetic acid	2-Chloro-3-iodopropanoic acid
(R)-4-Methylcyclohex-3-enecarboxylic acid	3-Isocyanatoprop-2-enoic acid	2,2,2-Trifluoroethylphosphonic acid	[(Nitroperoxy)sulfonyl]methane

2,2-Difluoro-4-iodobutanoic acid	4-Hydroperoxy-2-methyl-4-oxobut-2-enoic acid	2-Methylidene-5,6-dioxohexanoic acid	3-(Ethanedisulfinyl)but-2-enoic acid
Cyclopropylmethanesulfonic acid	4-Methoxy-2-methylpentanoic acid	2-Isocyanatoprop-2-enoic acid	3-Sulfinylprop-2-enoic acid
2-Hydroxybutyl hydrogen carbonate	4-Methylidene-5-oxoxolane-2-carboxylic acid	2-Nitroso-3-oxobutanoic acid	(3-Methoxybutyl)phosphonic acid
(2-Hydroxy-2-methylpropyl) hydrogen carbonate	4-Methoxy-3-methylbut-2-enoic acid	(Z)-2-Fluorobut-2-enedioate	5-Nitrilo-D-norvaline
4-Oxobutylphosphonic acid	3-Formyloxyprop-2-enoic acid	2-Aminooxy-2-methylpentanoic acid	3-(Nitrosooxy)butanoic acid
1-Hydroxy-2-[methyl(sulfinato)amino]-1-oxoethane	3-Nitrosobutanoic acid	Oxalurate	3,4-Dimethylpenta-2,4-dienoic acid
2-Amino-3-formyloxypropanoic acid	Carboxymethoxy(trihydroxy)phosphonium	2-(Ethylsulfinyl)-2-fluoroacetic acid	3-Hydroperoxy-3-methylbutanoic acid
Acetyl(methyl)carbamic acid	2-(Oxolan-3-yl)propanoic acid	(E)-2,3,4,4-Tetrachlorobut-2-enoic acid	3,3-Dichloroprop-1-ene-1-sulfonic acid
alpha,beta,beta-Trichloroisobutyric acid	4-Fluoro-2,2-dimethylbutanoic acid	1-Bromo-2,2-dichlorocyclopropane-1-carboxylic acid	3-(Hydroxyimino)propanoic acid
2-(2-Iodoethyl)cyclopropane-1-carboxylic acid	2-Bromo-5-chloropentanoic acid	2,3-Dichlorocyclopropane-1-carboxylic acid	4-(Hydroxysulfinyl)butanoic acid
2-(2-Chloroethyl)cyclopropane-1-carboxylic acid	2-[1-(Trifluoromethyl)cyclopropyl]acetic acid	3-Isothiocyantopropanoic acid	(2-Hydroxyoxiran-2-yl)acetic acid
(E)-2,3,4,4,4-Pentachlorobut-2-enoic acid	4-Oxazolecarboxylic acid, 2-formyl-	3-(2,2-Dimethylhydrazinyl)propanoic acid	(2S)-2-[Ethyl(nitroso)amino]propanoic acid
4-Oxazoleacetic acid	2-(1-Cyclopropylcyclopropyl)acetic acid	2,5-Dimethylxolane-3-carboxylic acid	2,4-Dihydroxypent-2-enoic acid
2,2-Difluorobut-3-enoic acid	2-(Thietan-3-yl)acetic acid	2-Isothiocyantooxyacetic acid	[(1R)-Cyclohex-3-en-1-yl]acetic acid
4-Chloro-3-methyl-4-oxobutanoic acid	6-Methylbicyclo[3.1.0]hexane-3-carboxylic acid	4-Methoxy-4-oxo-3-sulfinylbutanoate	3-(Methoxycarbonyl)bicyclo[1.1.0]butane-1-carboxylate
2-(Cyclopropylmethyl)prop-2-enoic acid	4-Isocyanobutanoic acid	4-Methoxy-4-oxo-3-sulfinylbutanoic acid	4-Fluoro-3-methylpent-2-enoic acid
2-(4-Oxothiolan-3-yl)acetic acid	2-(5-Chloro-1,3-thiazol-4-yl)acetic acid	3-Sulfonylpropanoic acid	4-Methoxy-3-methyl-4-oxobut-2-enoate
5-Isothiazoleacetic acid	3-Isocyano-3-methylbutanoic acid	3-Isocyanopropanoic acid	3,4-Dimethylcyclopent-1-ene-1-carboxylic acid
2-(Cyanomethoxy)acetic acid	3-(1,2-Dimethylcyclopropyl)propanoic acid	3-(Acetyloxy)-2-methylpropanoic acid	(2-Methoxyethoxy)(oxo)acetate
4-Cyano-2-methylidenebutanoic acid	1-(Fluoromethyl)cyclopropanecarboxylic acid	2-Pyrazol-1-yloxyacetic acid	Thiirane-2,3-dicarboxylic acid
2-Chlorobut-3-enoate	2-Cyclopropyl-2-fluoroacetic acid	2-(3-Methylcyclopent-2-en-1-yl)acetic acid	Hex-4-EN-2-ynoic acid
Nitro 2-oxopropanoate	3-Cyclopropyl-2,2-difluoropropanoic acid	2,2-Dichloro-2-methoxyacetic acid	5-Methyl-1-oxo-2,3-dihydrothiophene-4-carboxylic acid
2-Chloro-3-methylidenebutanedioic acid	2-Cyclopropyl-2,2-difluoroacetic acid	4-Oxobut-2-ynoic acid	1-Oxo-3,4-dihydro-2H-thiopyran-5-carboxylic acid
6-Oxabicyclo[3.1.1]heptane-2-carboxylic acid	4-Fluorovaleric acid	1-Nitrosoazetidine-3-carboxylic acid	6-Oxo-1,4,5,6-tetrahydropyrimidine-4-carboxylic acid
2-Iodocyclopropanecarboxylic acid	2-(1-Methoxycyclopropyl)acetic acid	2,2-Dimethyl-3-(methylamino)-3-oxopropanoic acid	3-Sulfinylcyclopentane-1-carboxylic acid
1-Acetamidocyclopropanecarboxylic acid	2-(2,3-Dihydrofuran-5-yl)acetic acid	Penta-3,4-dienoic acid	2-Bromo-2-hydroxyiminoacetic acid
5-Chloro-hex-4-enoic acid	2-Cyclopropyloxypropanoic acid	1-Ethoxyethyl hydrogen carbonate	4,5-Dioxohex-2-enoic acid

2-Acetyloxy-2-aminoacetic acid	4-Oxopentanoic acid	2-Bromo 5-hydroxyvaleric acid	1,2-Oxazinane-6-carboxylic acid
2-Methylsulfonyl ethyl hydrogen carbonate	Butanoic acid;4-oxopentanoic acid	2-(Oxiran-2-yl)ethylphosphonic acid	2-Hydrazinylidenepropanoic acid
1-Chloro-2,3-dioxocyclopropane-1-carboxylic acid	Calcium;4-oxopentanoic acid;hydrate	4-Methylphosphanyl-2-oxobutanoic acid	(1R)-2-(Trifluoromethyl)cyclopropane-1-carboxylic acid
2,4-Dioxohex-5-enoic acid	Copper;4-oxopentanoic acid	3-Oxo-4-sulfanylbutanoic acid	1-(Methyl-D3)-4-nitro-1H-pyrazole
2,2-Difluoroglutaric acid 1-methyl ester	(2S,3S)-2,4-Dichloro-3-hydroxybutanoic acid	Oxirane-2-butanoic acid	4-Oxo(3,4,5-13C3)pentanoic acid
3-(2-Oxoethylsulfanyl)propanoic acid	Acetic acid;4-oxopentanoic acid	4-Hydroxy-5-chloropentanoic acid	5-Hydroxyisoxazole-3-carboxylic acid
3-Ethenoxybutanoic acid	Acetic acid;4-oxopentanoic acid	2,2,4,4,4-Pentafluoro-3-oxobutanoic acid	5-Chloro-4-fluoronicotinic acid
Furan-2-yl hydrogen carbonate	4-Oxopentanoic acid;propan-2-one	N-(Chlorocarbonyl)-N-methylglycine	2-Methylsulfanylcyclopropane-1-carboxylic acid
2,5-Dichloro-3,3-dimethylpentanoic acid	4-Oxopentanoic acid;hydrate	2-Methylpropoxy hydrogen carbonate	2,3-Dichloro-3-methoxyprop-2-enoic acid
4,4,4-Trichloro-2-oxobutanoic acid	Methoxymethane;4-oxopentanoic acid	2-Hydroxypropyl hydrogen sulfite	2-Fluoro-5-hydroxypent-2-enoic acid
4-Ethylsulfinylbutanoic acid	(1S,2S)-2-(Ethoxymethyl)cyclopropane-1-carboxylic acid	1-(2-Methylpropyl)cyclopropane-1-carboxylic acid	2-Bromo-3-methyl-4-oxopent-2-enoic acid
Carboxymethoxy-hydroxy-oxophosphonium	(1S,2R)-2-[(E)-Prop-1-enyl]cyclopropane-1-carboxylic acid	Nitrooxyacetamide	3-Hydroxy-3-tritiocyclopentene-1-carboxylic acid
2-Formyl-3-methylcyclopropane-1-carboxylic acid	3-Methanethioylsulfanylpropanoic acid	4-Oxobutane-2-sulfonic acid	3-(Oxiran-2-yl)prop-2-enoic acid
3-Formylcyclopentane-1-carboxylic acid	4-Methoxy-4-oxobutane-2-sulfonic acid	2-Methoxypropyl dihydrogen phosphate	5-Methyl-4-oxohex-2-enoic acid
2-Chlorosulfinyloxypropanoic acid	4,4-Difluorobutyl hydrogen carbonate	1-(2,2-Difluoroethenyl)cyclopropane-1-carboxylic acid	4-Sulfanylpent-2-enoic acid
2-Dimethylphosphoryl ethyl phosphonic acid	6-Oxo-2,3-dihydropyran-2-carboxylic acid	2-Propa-1,2-dienylcyclopropane-1-carboxylic acid	3-(1,1,1,2-Tetramethylhydrazin-1-yl)propanoate
Phosphorosomethylphosphonic acid	2,2-Dichloro-4,4-difluoro-3-oxobutanoic acid	3-Chlorocaproic acid	3-Chloro-4,4,4-trifluorobut-2-enoic acid
Propanedioic acid, 2,2-difluoro-, 1-ethyl ester	Nitro 2-bromoethaneperoxoate	2-Methyl-4-sulfanylidene-pentanoic acid	(E)-2-Cyano-3-cyclopropylprop-2-enoic acid
2-(2-Methylimidazol-2-yl)acetic acid	5-Methyltetrazole-5-carboxylic acid	5-Methylidenecyclohexa-1,3-diene-1-carboxylic acid	3,4-Dichlorobut-3-enoic acid
2-Mercapto-2,3-dimethylbutanoic acid	5-Methyl-2,5-dihydropyridine-3-carboxylic acid	2,3-Dihydrofuran-2-carboxylic acid	Isoprenylacetate
2-Methyl-2-sulfanylbutanoic acid	3-Fluoro-2-tritiobutanoic acid	4-Chlorocaproic acid	4-Nitropent-3-enoic acid
3-Carbamoyloxirane-2-carboxylic acid	2-Methyl-4-sulfanylpent-2-enoic acid	2-Fluoro-3,3-dimethylbutanoic acid	4-Chloropent-3-enoic acid
(Z)-3-Chloropent-2-enoic acid	2-Sulfanylidene-pyran-4-carboxylic acid	3-Chloro-3-methylbutanoic acid	3-Methyl-4-oxo-2-hexenoic acid
3-Amino-3-sulfanylidene-propanoic acid	3-(3-Methylcyclopropen-1-yl)propanoic acid	1-Ethoxyaziridine-2-carboxylic acid	2-(Methoxyimino)acetate
cis-3-Carboxycyclobutyl azide	1-[(2S)-Oxiran-2-yl]ethylcarbamic acid	1-Methoxyaziridine-2-carboxylic acid	2-Oxo-3-diazopropionate
1-Aziridinecarboxylic acid, 2-(aminocarbonyl)-	Sulfamoyl hydrogen carbonate	2-(2-Chloroethenyl)cyclopropane-1-carboxylic acid	2-(4-Methylthiophen-3-yl)acetic acid
3-Ethoxybutanoic acid	1,4-Oxathiine-3-carboxylic acid	[1-(Acetyloxy)ethenyl]phosphonic acid	3,4,4,4-Tetrafluorobut-2-enoic acid
2-Amino-2-ethoxyacetic acid	4-Imino-2-oxopentanoic acid	5-Methyl-4-oxofuran-2-carboxylic acid	3-(Hydroxymethoxy)prop-2-enoic acid
4-Oxocyclohexa-1,5-diene-1-carboxylic acid	Carboxyphosphanyl(trimethyl)azanium	5-Hydroxy-2-oxohexanoic acid	6-Methyl-2,3,4,5-tetrahydropyridine-3-carboxylic acid

2,3,3-Trifluoro-2-methylpropanoic acid	2-[(Z)-Ethylideneamino]oxyacetic acid	2,2-Difluoro-3-fluoroxy-3-oxopropanoic acid	2-Methoxycarbonyl-3-methylcyclopropane-1-carboxylic acid
3-Methoxy-2-oxopropanoic acid	3-Cyano-3-hydroxypropanoic acid	2,2,3,3-Tetrafluoropropyl hydrogen carbonate	4,4-Difluorobut-2-enoic acid
5-Oxo-2-sulfanylhexasanoic acid	Hexane-2,5-di(18O)one	4-Chlorooxolane-2-carboxylic acid	5-Methyloxolane-3-carboxylic acid
2-Hydroxy-4-oxopentanoate	2-[Ethenoxy(methyl)amino]propanoic acid	3-Methyloxolane-2-carboxylic acid	(E)-4,4-Difluoropent-2-enoic acid
Tert-butylperoxy hydrogen carbonate	2-Oxo-2-(2-sulfanylethoxy)acetic acid	Cyclohepta-3,5-diene-1-carboxylic acid	Rac-(1R,2S)-2-Propylcyclopropanecarboxylic acid
2-Chloro-4-oxopentanoic acid	5-Iminopent-2-enoic acid	2-Hydroxy-2-sulfonylacetic acid	4,4-Dichloro-3-methylbutanoic acid
2-Chloro-2,4-dimethylpentanoic acid	2-(Ethylideneamino)cyclopropane-1-carboxylic acid	Bicyclo[3.1.0]hexa-1(6),2,4-triene-3-carboxylic acid	1-Hydroxyethylideneacetate
Carbonochlorido(methyl)carbamate	1-Acetyloxyethanesulfonate	6-Mercapto-4-oxohexanoic acid	2-Oxidoiminopropanoic acid
2-Ethoxy-2,2-difluoroacetic acid	2-Chloropent-4-ynoic acid	4-Isothiazoleacetic acid	3-Hydroxyiminobutanoic acid
2-(3,4-Dihydro-2H-pyrrol-5-yl)acetic acid	3-Hydroxy-3-methylcyclopentene-1-carboxylic acid	5-Phosphanylpentanoic acid	3-Nitroprop-2-enamide
3-Chloro-2,2,3-trifluoropropanoic acid	2-Methyl-4-methyliminobut-2-enoic acid	(E)-4-Ethoxybut-2-enoic acid	4-Chloropenta-2,4-dienoic acid
2-Hydrazinyloxyacetic acid	(E)-4-(Hydroxyamino)-3-methyl-4-oxobut-2-enoic acid	2,2,3-Trifluoropropanoic acid	4-Methyl-3,4-dihydro-2H-pyrrole-2-carboxylic acid
2-(2-Oxopropoxy)propanoic acid	4H-1,3-Thiazine-6-carboxylic acid	2-(2-Oxopropoxy)acetic acid	(Difluoromethylideneamino) hydrogen sulfate
2-Chloropent-4-enoic acid	(2S)-2-Methyl-4-oxo-4-phosphanyloxybutanoic acid	2-(Phosphanylideneamino)propanoic acid	2-Methyl-5-oxopent-2-enoic acid
5,5,5-Trifluoro-4-oxopentanoic acid	2-Methyl-2,3-dihydropyridine-5-carboxylic acid	1-Acetyl-2-methylaziridine-2-carboxylic acid	(1R,2R)-2-(Fluoromethyl)cyclopropane-1-carboxylic acid
2-(2-Oxohydrazinyl)acetic acid	(2S)-2-Carbonochloridoxypropanoic acid	2-[Acetyl(methyl)amino]ethanesulfonate	4-Methoxy-2-methylpent-2-enoic acid
2-Bromo-4,4,4-trichlorobutanoic acid	5-Chloro-4,5-dioxopentanoic acid	5,5-Dimethoxy-3-sulfanylpentan-2-one	Trifluoromethylsulfanylformic acid
3,5-Dimethyl-3,4-dihydropyrazole-5-carboxylic acid	2-[Ethenyl(methyl)amino]acetic acid	3,6-Dihydro-2H-1,4-oxazine-5-carboxylic acid	(1R,4S)-4-Methylcyclopent-2-ene-1-carboxylic acid
4-Sulfanylcyclohexane-1-carboxylic acid	3-[Dihydroxy(methyl)silyl]propanoic acid	Dihydroxyphosphanyloxy dihydrogen phosphite	2-Aminoxyacetic acid
1,4-Dithiane-2-carboxylic acid	3-Hydroperoxy-4-oxobutanoic acid	1-Methoxypropyl hydrogen carbonate	4-Oxidopent-4-enoate
3-Hydroperoxypropanoic acid	trans-2-(Difluoromethyl)cyclopropanecarboxylic acid	4-Chloro-2-methylpentanoic acid	2-(Phosphanylmethyl)butanoic acid
5-Methyl-2,4-dioxohexanoic acid	3-Diazenyl-4,4,4-trifluorobutanoic acid	Methylsulfonyloxymethanesulfonic acid	Nitrosomethyl hydrogen carbonate
3-Cyclopropylbutanoic acid	2,3-Dideuterio(113C)butanedioic acid	3-Methyloxirene-2-carboxylic acid	5-Phosphanyloxypent-2-enoic acid
3-Cyano-2-sulfanylpropanoic acid	2-(Ethylidenehydrazinylidene)acetic acid	1-Sulfanylethyl hydrogen carbonate	2-Ethanido(cyclo)propane-1-carboxylic acid
Isocyano hydrogen carbonate	1-Aminoxy(cyclo)propane-1-carboxylic acid	6-Chloropyridazine-4-carboxylic acid	(2S)-2-Carbonofluoridoxypropanoic acid
2,3,3-Trichloro-butyric acid	2,4,4,4-Tetrafluorobut-2-enoic acid	4,4-Difluorobutanoate	1,1,1-Trideuteriohexane-2,5-dione
2-Methyl-2h-1,2,3-triazole-4-carboxylic acid	2,2,3,3-Tetradeuterio-3-[deuteriomethyl-methyl-(trideuteriomethyl)silyl]propanoic acid	4,4-Difluorobutanoic acid	2,5-Dihydro-1,2-oxazol-3-yl hydrogen carbonate

4-Methylthietane-2-carboxylic acid	Carboxymethyl-methoxycarbonyl-dimethylazanium	3-Azido-2,2-dimethylpropanoic acid	2-Methyl-2-(methyl-methylidene-oxo-lambda6-sulfanyl)propanoic acid
3-Pyridazineacetic acid	5-Hydroperoxypent-2-enoic acid	2-Chloro-4-methylsulfanylbutanoic acid	4-(Deuterioamino)-4-oxobut-2-enoic acid
3-Methyl-1-sulfanylpiperidine-2-carboxylic acid	3-Aminooxy-2-methylprop-2-enoic acid	2-Amino-5-chloro-4-oxopentanoate	Nitro 2-diazoacetate
5-Amino-5-sulfanylidene-pentanoic acid	2-[(2S)-4-Oxooxetan-2-yl]acetic acid	2-[Ethyl(hydroxy)amino]-2-oxoacetic acid	3,6-Dioxohexanoic acid
2-Isocyano-2-methylpropanoic acid	2-[Methoxy(methyl)amino]acetic acid	(2-Hydroxycyclopentyl) hydrogen carbonate	cis-2-Trimethylsilyl-cyclopropane-1-carboxylic acid
3-Cyano-2-hydroxypropanoic acid	4-Oxo-4-phosphanylbutanoic acid	2-Amino-2-sulfinoacetic acid	3-(Oxomethylidene)pentanoic acid
Thiadiazol-5-yl hydrogen carbonate	[Amino(hydroxymethyl)phosphanyl]formic acid	2-(1-Hydroperoxyethenylsulfanyl)acetic acid	3-Chloro-3-sulfanylbutanoic acid
Carboxyperoxy formate	3-(Triaziridinyl)propanoic acid	3-Hydroxy-4-methylcyclopentene-1-carboxylic acid	2,2,3,3-Tetrafluoropentanoic acid
4-Ethoxy-2-sulfanylbutanoic acid	2-[Ethynyl(methyl)amino]acetic acid	Methoxy-oxo-phosphonooxyphosphonium	3,6-Dihydronicotinate
2,2-Difluoro-3-methylbutanoic acid	2,2,3,3,4-Pentafluoropentanoic acid	O-Methyl-D-threonine	2-(Carboxyethoxy)propanal
2-Methyl-4-oxopentanoate	2-(2-Diazenylethylimino)acetic acid	2-Hydroxymethyl-4-oxobutanoate	Methane;4-oxopentanoic acid
1,2,3-Trimethylcyclopropane-1-carboxylic acid	2-(2-Cyanopropan-2-ylsulfanyl)acetic acid	2-Carbamoyloxypropanoic acid	2-Ethylphosphanylacetic acid
2-Carboxyethyl(methyl)phosphinate	5-Fluoro-2-methylidene-4-oxopentanoic acid	(2R)-2-(Methylsulfanylamino)-3-sulfanylpropanoic acid	2H-Thiazine-3-carboxylic acid
(2E)-4-Chloro-2-methylpenta-2,4-dienoic acid	2,2,3,3,4-Pentadeuterio-4-oxobutanoic acid	2-Methylidene-3-oxobutanoic acid	4-Ethoxybutanoic acid
2-(Phosphanylideneamino)acetic acid	4-Hydroxy-4-methoxybut-2-enoic acid	(2S,4R)-2,4-Dihydroxypentanoic acid	5-Oxazoleacetic acid
2,5-Dimethyltriazole-4-carboxylic acid	3-Hydroxy-3-methylcyclobutene-1-carboxylic acid	(3-Methyl-2-oxobut-3-enyl) dihydrogen phosphate	2-Hydroperoxy-2-methoxyacetic acid
(2S)-2-Isocyanatopropanoic acid	2-(2-Oxoethyl)cyclopropane-1-carboxylic acid	3-[Formyl(methoxy)amino]propanoic acid	2,3-Dichloro-3,3-difluoropropanoic acid
(R)-Tetrahydrofuran-3-carboxylic acid	Carboxy N-methoxymethanimidate	Difluoro(methoxycarbonyl)methanesulfonate	Methanol;4-oxopentanoic acid
2-(Hydroperoxyamino)acetic acid	5-Methyl-2H-1,2-oxazole-5-carboxylic acid	1,2-Dimethylaziridine-2-carboxylic acid	3-Methyl-4-oxo-3-sulfanylpentanoic acid
1,3-Dithiane-5-carboxylic acid	Prop-1-enylphosphanylformic acid	4-Methoxy-2-(methylamino)-4-oxobutanoic acid	2-[Ethenyl(ethyl)amino]acetic acid
3,3-Bis(sulfanyl)propanoic acid	4-Deuterio-2-methyl-3-oxobutanoic acid	(E)-4-Oxidooxybut-2-enoate	Cyclopenta-1,3-dien-1-yl hydrogen carbonate
2-Bromo-5-oxopentanoic acid	3-Formylsulfanyl-2-methylpropanoic acid	2-(1-Propan-2-ylcyclopropyl)acetic acid	4-Methoxy-4-oxo-2,2-bis(sulfanyl)butanoic acid
Phosphinoglycine	Ethane;4-oxopentanoic acid	4-Bromo-2-methylimino-3-oxobutanoic acid	2-(4-Oxodioxolan-3-ylidene)acetic acid
2-Hydroperoxyethanesulfonic acid	2,3-Dideuterio(113C)but-2-enedioic acid	Hydroxyphosphanyloxycarbonylphosphanylformic acid	(6-Deuteriocyclohex-3-en-1-yl) hydrogen carbonate
2-Hydroperoxyprop-2-enoic acid	3,6-Dihydropyridazine-4-carboxylic acid	2-(Methylperoxymethoxy)acetic acid	2-Deuterio-5-hydroxypentanoic acid
3-Hydroperoxybut-3-enoic acid	Dithiolan-4-yl hydrogen carbonate	2-Methoxycarbonyloxypropanoic acid	3-(Hydroxymethyl)-5-oxopentanoic acid
4-Hydroperoxybut-2-ynoic acid	1-Nitrooxyethyl hydrogen carbonate	Carboxymethyl-methyl-oxophosphonium	2,5-Dihydro-1,3-oxazole-4-carboxylic acid
2-Methyl-4-(methylamino)-4-oxobutanoate	2-Formylsulfanylbutanoic acid	2-Acetyl-cyclopropanecarboxylic acid	Oxalonitrat

2-(2,3-Dihydrothiophen-5-yl)acetic acid	2-(Dioxiran-3-yl)-2-oxoacetic acid	3-(Methylaminomethoxy)propanoic acid	3-Hydroxy-2-tritiobutanoic acid
2-(3-Oxo-1,2-thiazolidin-2-yl)acetic acid	1,2-Dioxo-1,3-thiazolidine-4-carboxylic acid	4-Fluorobut-2-ynoic acid	5-Chloro-2-methylhexa-2,5-dienoic acid
4-Aminooxy-2-methylidene-4-oxobutanoic acid	2H-1,3-Thiazol-3-yl hydrogen carbonate	1-Methylsulfonylaziridine-2-carboxylic acid	3-Ethoxy-3-sulfanylpropanoic acid
2-Carboxyoxo-2-oxoacetic acid	Deuterio 4-fluorobenzoate	2-Oxobutyl hydrogen sulfate	1-Methyl-2,3-dihydropyridin-1-ium-4-carboxylic acid
2-Methanidyloxyacetic acid	3-Deuteriohex-2-enoic acid	2-(1-Hydroperoxyethoxy)-2-oxoacetate	4-Oxobut-1-enylphosphonic acid
3-(2-Methyl-3H-pyrrol-3-yl)propanoic acid	3-Chloro-2-methylbut-3-enoic acid	2-[Ethyl(methyl)amino]acetate	2-(Acetylamino)-propionic acid anion
3-Amino-4-methoxy-2-methyl-4-oxobutanoic acid	(2S)-5-Methyl-3,4-dihydro-2H-pyrrole-2-carboxylic acid	2-Oxo-3-phosphanylpropanoic acid	4-Chloro-4-nitrosobutanoic acid
2-Formyliminopropanoic acid	(113C)But-2-enedioic acid	2-(Phosphanylamino)propanoic acid	2-(2-Nitrosohydrazinyl)acetic acid
(Z)-4-Hydroperoxy-2-methylbut-2-enoic acid	(3S)-3-Fluoro-4-hydroxycyclopentane-1-carboxylic acid	3-Mercaptoacrylic acid	3-Iminocyclohexane-1-carboxylic acid
(R)-3,4-Epoxybutyrate	4-Methylcyclohexa-1,3-diene-1-carboxylic acid	Hexanoic acid, 5-mercapto-	3-Carbonochloridoxyloxy-2-methylprop-2-enoic acid
4-Hydroxy-2-methyl-4-oxobutanoate	2-Methylphosphirane-1-carboxylic acid	(Z,2S)-3,4-Dichloro-2-(sulfanylmethyl)but-3-enoic acid	3-Phosphanyliminophosphanylprop-2-enoic acid
2-(Ethoxyamino)propanoic acid	(2S)-2-(Difluoroamino)-2-fluoropropanoic acid	2-Amino-4-hydroxybutyrate	2H-1,4-Diazepine-5-carboxylic acid
2-Methoxyethyl sulfate	4-Ethoxybut-3-enoic acid	2-[Acetyl(ethenyl)amino]acetic acid	(2S)-2-(Aminooxyamino)-3-hydroxypropanoic acid
2-Acetyloxyethanesulfonic acid	3-Chloro-2-sulfanylbutanoic acid	2-(Disulfanyl)propanoic acid	3-(Azet-2-yl)propanoic acid
2-[Dihydroxy(methyl)silyl]acetic acid	(2-Methylpyrrolidin-1-yl) hydrogen carbonate	Butanedioic acid, 2,3-dimercapto-, monomethyl ester	4-Chloro-2-methyl-4-oxobut-2-enoic acid
4-Methoxy-2-oxobutanol (Dimethylphosphino)acetic acid	6-Deuteriohex-2-ynoic acid	[2-(Oxidoamino)-2-oxoethyl] phosphate	3,3-Dichloropent-4-enoic acid
	3-Hydroxycyclobutene-1-carboxylic acid	5,5,5-Trifluoropentanoate	(Carboxymethylamino)-methoxy-oxoazanium
4-Iminobutanoic acid	3-(Methoxyamino)-2-methylprop-2-enoic acid	4-(2-Oxoethoxy)but-2-ynoic acid	2-Methylcyclobuta-1,3-diene-1-carboxylic acid
2-[Methyl(phosphanylmethyl)amino]acetic acid	2-Fluoro-2-methyl-3-oxobutanoic acid	1-Methoxy-1-oxopropane-2-sulfonate	(2R)-2-Methoxycarbonyl-2-methylcyclopropane-1-carboxylic acid
2-[Hydroxy(methyl)amino]-2-oxoacetic acid	2-Azido-2-sulfanylacetic acid	3-Fluoro-2-oxobicyclo[3.1.0]hexane-6-carboxylic acid	Difluoromethylsulfanylphosphonic acid
Carboxyoxo-hydroxy-oxophosphonium	Formamidossulfanylformic acid	2-[Dimethyl(2-oxopropyl)azaniumyl]acetate	(2S)-2-[Acetyl(sulfanyl)amino]propanoic acid
2,4-Dimethylcyclopentane-1-carboxylic acid	2-(Chloromethoxy)propanoic acid	2-Hydroxypropyl sulfite	4-Nitroso-2-oxobutanoic acid
3-Oxidopentanoate	4-Hydroxysulfanyl-4-oxobutanoic acid	2-Methyl-2-[methyl(phosphanyl)amino]propanoic acid	3-Ethyliminobutanoic acid
2H-Pyrrole-4-carboxylic acid			

Table 5. Analogs of acrylic acid

2-Oxobutanoic acid	Acetic acid-1-13C,d4	3-Fluoro-2-oxopropanoate	Oxomethylidene(oxoniocarbonyl) oxidanium
3-Mercaptopyruvic acid	Propionic-2,2-d2 acid-d	Bromochlorofluoroacetic acid	Carboxy(oxomethylidene)oxidanium

Acetate	Dichloroacetic acid-d2	[Methylthio]acetate	2-(Dioxiran-3-yl)acetic acid
Acetic acid	Dichloroacetic acid-2-13C	(2R)-3-Amino-2-methylpropanoate	2-(18F)Fluoranylpropanoic acid
Butyric acid	Acetic acid-18O2	(R)-2-Chlorobutyric Acid	But-2-enoate
Aminooxyacetic acid	(1,2,3,4-13C4)Butanoic acid	2-Thiophosphorosoacetic acid	3,3,3-Trideuterio-2-methylpropanoic acid
Chloroacetic acid	Chloroacetic acid-1-13C	Propynoate	Cycloprop-2-ene carboxylic acid
N,N-Dimethylglycine	Chloroacetic acid-2-13C	(2E)-2-Hydrazinylidenepropanoic Acid	Butanoic acid, 2-fluoro-, (S)-
Glyoxylic acid	2,2,2-Trifluoroacetic acid	2-Aminooxy-2-oxoacetic acid	2-(18F)Fluoranyl-2-methylpropanoic acid
Propionic acid	Butyric acid-1,2-13C2	2-Methylpropanedithioic acid	2-[Bromo(chloro)amino]acetic acid
Pyruvic acid	(1,2-13C2)Propanoic acid	3,3-Dichloro-propanoic acid	2-Oxo(1,2-13C2)propanoic acid
Thioglycolic acid	(2,3-13C2)Propanoic acid	2-Tritioacetic acid	(S)-2-Methyl-3-oxopropanoate
Methacrylic acid	(1,2,3-13C3)Prop-2-enoic acid	(2Z)-2-Hydrazinylidenepropanoic acid	(1R,2S)-2-Fluorocyclopropane-1-carboxylic acid
Fluoroacetate	Butyric acid-d8	Pivalate	(2S)-2-Oxidopropanoate
Fluoroacetic acid	Thioglycolate(2-)	(2S)-2-Methylbutanoate	Nitrosoperoxycarbonic acid
Iodoacetic acid	Iodobutyrate	3-Butenoate	Nitrosoperoxycarbonate
Bromoacetate	Hydroxy(oxo)methanesulfinate	(E)-2-Methylbut-2-enoate	2-Fluoro-but-2-enoic acid
Bromoacetic acid	Sulfinofomic acid	(R)-(+)-2-Bromopropionic acid	Prop-2-enoic acid;ZINC
Pivalic acid	Sulfanyl hydrogen carbonate	3-Chloropropanoate	Prop-2-enoic acid;chloride
2,2-Dichloropropionic acid	2-(Hydroperoxy)propionic acid	Cyclopropanecarboxylate	3-Fluoro-2-methylprop-2-enoic acid
Trifluoroacetic acid	Carbonic acid chloromethyl ester	2-Chloroacrylate	2-Chloro-3-fluoroprop-2-enoic acid
3-Mercaptopropionic acid	Hydroperoxy hydrogen carbonate	3-Bromopropanoate	3,3-Dideuterio-2-(trideuteriomethyl)prop-2-enoic acid
Methyl vinyl ketone	Carbonofluoridic acid	2-Bromo-2-methylpropanoate	Tritio 2-methylprop-2-enoate
Isobutyric acid	Chloro hydrogen carbonate	But-2-ynoate	2-(Deuteriomethyl)prop-2-enoic acid
Dichloroacetic acid	Fluoro hydrogen carbonate	(1S,2S)-2-Methylcyclopropane-1-carboxylic acid	3-Methyldioxirane-3-carboxylic acid
3-Chloropropionic acid	Phosphorosoformic acid	(1S,2R)-2-Methylcyclopropane-1-carboxylic acid	Deuterio (2S)-2-(fluoroamino)propanoate
3-Iodopropionic acid	2-Hydroxypropan-2-yl hydrogen carbonate	cis-2-Methylcyclopropanecarboxylic acid	2,3-Difluorobutanoic acid
Difluoroacetic acid	2-Chlorooxyacetic acid	trans-2-Methylcyclopropanecarboxylic acid	Dioxirane-3-carboxylic acid
2-Fluorobutyric acid	N,N-Dichloroglycine	(S)-2-Chloropropanoate	Fluoromethyl hydrogen carbonate
3-Fluoropropanoic acid	Hydroperoxyacetic acid	2,2-Bis(fluoranyl)propanoate	2-Chlorooxyiminoacetic acid
Propiolic acid	N-Hydroxy-L-alanine	Trifluoromethylacetate	3-Fluoro-2-methylpropanoic acid

Isovaleric acid	Thioxoacetic acid	Dioxido-oxo-propan-2-yl-	2-Chloro-2-deuterio-2-fluoroacetic acid
3,3-Dimethylacrylic acid	3-Chloro-3-oxopropanoate	2-Fluoroacrylate	2-Fluorobut-3-enoic acid
2,3-Dichloropropionic acid	2,2-Dichloro-2-deuterioacetic acid	3-Mercaptopropionate	2-Chloroiminoacetic acid
3-Bromopropionic acid	3-Deuteriopropionic acid	(2R)-2-Sulfanylpropanoic acid	2-Oxo-3-tritiopropanoic acid
1,1-Dichloro-1-nitroethane	2-Phosphanylacetate	3-Chloroacrylate	Monothioglycine
2-Bromopropionic acid	Phosphanylacetic acid	(Z)-3-Chloroprop-2-enoate	Acetic acid, (methoxyimino)-
2-Chloropropionic acid	2-(Fluoromethyl)prop-2-enoic acid	4-Oxobutanoate	2-Hydrazinyloxy-2-oxoacetic acid
2-Chloroacrylic acid	(Sulfanylamino)sulfanylormic acid	Isocrotonate	Tritio acetate
Methoxyacetic acid	Methoxy hydrogen carbonate	1-Fluorocyclopropanecarboxylic acid	2-Chloro-2-nitrosoacetic acid
Dibromoacetic acid	Carboxylatomethylum	(1S,2S)-2-Fluorocyclopropanecarboxylic acid	2-Diazenylpropanoic acid
3,3-Dichloroacrylic acid	2-Fluoro-3-sulfanylpropanoic acid	Carbonocyanidic Acid	Methylsulfanylmethyl hydrogen carbonate
Propane, 1,1-dimethoxy-2-methyl-	Methyl hydrogen phosphate	Butyric acid-1-13C	Difluoroalanine
Cyclopropanecarboxylic acid	2-(Disulfanyl)acetic acid	Ethenyl hydrogen carbonate	Iodoalanine
2-Propene-1-sulfonic acid	Hydroxyphosphanylformic acid	Pyruvic-2-13C acid	(214C)Propanoic acid
N-Hydroxyglycine	2-Hydroxyphosphanylacetic acid	Propionic acid-13C3	Bromomethyl hydrogen carbonate
Cyclobutanecarboxylic acid	2-[Chloro(hydroxy)amino]acetic acid	2-Oxo(313C)propanoic acid	Aminoxalanine
2-Chlorobutyric acid	Iodo hydrogen carbonate	2-Oxo(2,3-13C2)propanoic acid	2-Bromo-3-fluoroprop-2-enoic acid
Acrylate	2-Thionitrosoacetic acid	Pyruvic acid-13C3	3-Bromo-2-fluoroprop-2-enoic acid
Dichloroacetate	Carboxynitrite	3-Fluoro-2-oxobutanoic acid	Acrylic acid, calcium salt
3-Butenoic acid	2-Bromo-2-oxoacetic acid	(1R,2R)-2-Fluorocyclopropanecarboxylic acid	1-Hydroxyprop-1-en-1-olate
3-Methyl-2H-azirine-2-carboxylic acid	2-(Methoxyamino)acetic acid	trans-2-Fluorocyclopropanecarboxylic acid	3-Hydroxy-3-oxoprop-1-en-2-olate
2-Hydroxyacrylic acid	2-Aminoxyprop-2-enoic acid	2,2-Difluoro-2-methoxyacetic acid	(1S,2R)-2-Chlorocyclopropane-1-carboxylic acid
3-Iodoprop-2-enoic acid	2-Chlorosulfanylpropanoic acid	2-Fluorocyclopropanecarboxylic acid	2-Methylthiirane-2-carboxylic acid
2-Mercaptopropionic acid	Iodomethyl hydrogen carbonate	Acetic acid-1-13C	2-(Hydroxyamino)-2-sulfanylideneacetic acid
2-Propenoic acid, polymer with ethene	1-Chloroethyl hydrogen carbonate	Pyruvic acid-1-13C	3-Methylthiirane-2-carboxylic acid
Chlorodifluoroacetic acid	Oxaziridine-3-carboxylic acid	Propanedithioic Acid	N-Methylidene-L-alanine
Dichlorofluoroacetic acid	2-Phosphanyloxyacetic acid	2-Oxo(413C)butanoic acid	2-Bromo-2-iodoacetic acid
Bromonitromethane	Carboxy-hydroxy-oxophosphonium	(2R)-2-Methyloxirane-2-carboxylic acid	Deuterio 2,2,2-trideuterioacetate

2-Methyl-1-nitropropane	2-Isocyanopropanoic acid	(R)-Oxiranecarboxylic acid	2,2-Difluoro-2-sulfanylacetic acid
Deuterotrifluoroacetic acid	Water acrylate	Isobutyric-d7 acid	Chlorosulfinylformic acid
Propanethioic acid	3-Fluorobut-3-enoic acid	Bromoacetic-13C2 acid	2-Fluoroxyacetic acid
2-Bromo-2-methylpropanoic acid	Phosphoformic acid	Propanoic acid-3,3,3-d3	2-Iodo-2-oxoacetic acid
(Methylthio)acetic acid	Carboxy formate	2-(113C)Methylprop-2-enoic acid	Tritio 3-methylbutanoate
Propanoic acid, 2-(aminoxy)-	2-Phosphanylprop-2-enoic acid	Bromoacetic acid-1-13C	Phosphanyl hydrogen carbonate
Monomethyl carbonate	2-(Difluoromethyl)prop-2-enoic acid	Bromoacetic acid-2-13C	Methyl carbonotrithioate
Propane-2-sulphonic acid	Methylsulfanylformic acid	2-Chloro-3,3-difluoropropenoic acid	Prop-2-enethioate
2-Bromoacrylic acid	2-Sulfonylacetic acid	3-Methylbutyric-2,2-d2 acid	Tritio propanoate
Ammonium acrylate	Bicyclo[1.1.0]butane-1-carboxylic acid	3-Bromo-3-fluoropropanoic acid	3,3-Dideuterio-3-sulfanylpropanoic acid
Trifluoroacetate	1-Hydroxyaziridine-2-carboxylic acid	(2R)-2-Fluoropropanoic acid	2,2,3,3-Tetradeuterio-3-sulfanylpropanoic acid
Methacrylate	Aziridine-1-sulfonic acid	2-Propenoic acid, 2-methoxy-	2,2-Dideuterio-3-sulfanylpropanoic acid
(2R)-2-Bromo-2-chloroacetic acid	2,2,3-Trifluoropropanoic acid	(S)-2-Fluoropropanoic acid	(3R)-3,4,4,4-Tetradeuterio-3-methyl(412C, 1,2,3-13C3)butanoic acid
2-Methoxypropanoic acid	2-Iodocyclopropanecarboxylic acid	Formic acid, (thiocarboxy)-	Deuterio 2-bromo-2,2-dideuterioacetate
Oxirane-2-carboxylic acid	2-Phosphanylpropanoic acid	Deuterio 2-chloroacetate	Deuterio 2,2-dideuterioacetate
Chlorofluoroacetic acid	Bromoformic acid	2-Methyloxirane-2-carboxylic Acid	S-Tritio propanethioate
2-Methylcyclopropanecarboxylic acid	2-Fluoro-2-oxoacetic acid	Acetic acid-13C2	(Z)-3-Hydroxyacrylic acid
Propionate	Hydrazinyl hydrogen carbonate	3,3-Difluorobutanoic Acid	2-Chloro-2-deuteriopropanoic acid
Butyrate	1-Cyclopropene-1-carboxylic acid	Propanoic acid, 2-chloro-2-fluoro-	4-Tritiobutanoic acid
Ethyl hydrogen carbonate	2-Hydrazinyloxyacetic acid	Oxalochloride	2-Bromo-2,2-ditritioacetic acid
Pyruvate	Isocyano hydrogen carbonate	Jodameisensaure	2-Methylpropan(18O2)oate
2-Nitropropane nitronate	2-Methylprop-2-enoic acid	Iodomethylphosphonic Acid	Tritio 3-sulfanylpropanoate
(S)-2-Chloropropionic acid	2-(Phosphanylideneamino)acetic acid	1-Propene, 1,1-dimethoxy-	3,3,3-Trideuterio-2,2-dimethylpropanoic acid
2,3-Dimercaptopropionic acid	Phosphinoglycine	Deuterio 2-methylprop-2-enoate	Prop-2-enoic acid;vanadium
Iodonitromethane	2-Hydroperoxyprop-2-enoic acid	(313C)Propanoic acid	2-Oxidoprop-2-enoate
(1-14C)Pyruvate	2-Iodoprop-2-enoic acid	2-Bromo-2-fluoropropanoic acid	3,3,3-Trideuterio-2-methyl-2-(trideuteriomethyl)propanoic acid
Acetic acid-C,C,C-d3	2,2,3,3-Tetradeuteriopropanoic acid	Nitroethyne	Chloroacetic acid-d3
3-Butynoic acid	2-Fluoro-2-phosphanylacetic acid	2-Chloro-2,2-dideuterioacetic acid	2,3,3,3-Tetradeuterio-2-methylpropanoic acid

2-Propenoic acid, 2-mercapto-	2-[Hydroxy(methyl)amino]-2-oxoacetic acid	3-Chloro-3-Oxopropanoic Acid	(2S)-2-(18F)Fluoranylpropanoic acid
2-Iodopropanoic acid	Fluorooxymethanesulfonic acid	Isovaleric acid-1-13C	(2R)-2-(18F)Fluoranylpropanoic acid
N-Chloroglycine	Methylphosphanylformic acid	Butanoic-2,2-d2 acid(9CI)	2-Oxoacetate
Chlorocarbonic acid	Propanoic acid	Butyric acid-2-13C	[Hydroxy(methoxy)methylidene]oxidanium
Acetic acid C-14	4-Deuteriobutanoic acid	(413C)Butanoic acid	Hydroxy(prop-2-enoato-O)ZINC
2-Methylpropanoate	3-Mercaptoacrylic acid	Butyric acid-4,4,4-d3	Prop-2-enoic acid;ZINC
Carbonoperoxoic acid	3-Fluorodioxirane-3-carboxylic acid	Butyric-d7 acid	Tritio butanoate
Isopropylphosphonic acid	2-Diazenylacetic acid	Propanoic acid-1-13C	CID 59032882
2-Fluoropropionic acid	2,3-Butadienoic acid anion	2-Deuteriopropanoic acid	Deuterio 2-(trideuteriomethyl)prop-2-enoate
n-Hydroxy-n-methylglycine	Carbonochloridate	Deuterio propanoate	2-(Trideuteriomethyl)prop-2-enoic acid
2-Bromo-3-fluoropropionic acid	Ethoxyformic acid anion	2-Tritiopropanoic acid	Prop-2-enoic acid;rhenium
2-Bromocyclopropanecarboxylic acid	Bromo hydrogen carbonate	Propanoic acid-2,2-d2	2,2,3,3,3-Pentadeuteriopropanoic acid
3-Methyl-3-butenic acid	Methylphosphinoacetic acid	Acetic acid-2-13C	2-Methyl(113C)prop-2-enoic acid
1-Hydroxyethylideneoxidanium	Methylphosphinopropionic acid	2-Deuterioacetic acid	Tritio methylsulfanylformate
(S)-3-Amino-2-methylpropanoic acid	Methoxymethyl hydrogen carbonate	Acetic acid-2-13C,2,2,2-d3	Propan-2-yloxymethanethioate
CID 450346	2-(Aziridin-1-yl)acetic acid	2,2,2-Trititioacetic acid	3,3,3-Trideuterio-2-oxo(1,2,3-13C3)propanoic acid
CID 450347	2-Fluoroethyl hydrogen carbonate	Bromoacetic acid-d3	Prop-2-enoic acid;titanium
CID 450348	Fluoromethylsulfate	2-Deuterio-2-methylpropanoic acid	Prop-2-enoic acid;tungsten
Acetic acid C-11	1-Bromoethenesulfonic acid	2-Methyl-d3-propionic-3,3,3-d3 acid	Prop-2-enoic acid;rutherfordium
Fluoroacetic acid F-18	2-Chloro-3-fluoropropanoic acid	Isobutyric acid-1-13C	Prop-2-enoic acid;ytrium
Thiophosphonoformic acid	Phosphoroso hydrogen carbonate	Acetic Acid-13C2, D3	2-Deuterio-3-methylbutanoic acid
Methylphosphinoformic acid	Oxirenecarboxylic acid	Thiirane-2-carboxylic acid	2-Deuterio-2-oxoacetate
Sodium isopropyl sulfate	Propan-2-yl carbonate	(2S)-Thiirane-2-carboxylic acid	Methylaminophosphanylformic acid
Chloroacetate	2-Bromo-2-hydroxyacetic acid	Amino(sulfanylidene)acetic acid	2-Deuterio-2,2-difluoroacetic acid
2-Iodoacetate	2-Methoxyacrylate	2-Bromoacetyl cyanide	2-Deuterio-2-fluoro-2-phosphanylacetic acid
Bromochloroacetic acid	Phosphanylformate	3,3,3-Trideuterio-2-(trideuterio(113C)methyl)(313C)propanoic acid	Tritio (E)-2,3-ditritiobut-2-enoate
Monomethyl carbonotrithioate	Chlorosulfanylformic acid	(Bromomethyl)phosphonic acid	Tritio 2-methylpropanoate

(E)-3-Iodoacrylic acid	Iododifluoroacetic acid	2-(Hydroxyamino)propanoic acid	1-Hydroxypropylideneoxidanium
(S)-(-)-2-Bromopropionic acid	Carbonocyanidate	(213C)Propanoic acid	Prop-2-enoic acid;yttrium
(S)-2-Mercaptopropanoic acid	Chlorooxoacetate	Prop-2-enoic acid	Carboxyethanolate
2-Butenoic acid, 3-chloro-	Propanedithioate	(2R)-3-Chloro-2-methylpropanoic acid	Deuterio carbonochloridate
Isocrotonic acid	2-Carboxyethylphosphine	3,3-Difluoroacrylic acid	2-Iodoacetic acid
cis-3-Chloroacrylic acid	Aminophosphanylformic acid	Glycone	Bromoacetic acid-18O2
(Z)-3-Bromoacrylic acid	2-Phosphorosoacetic acid	Ethylsulfanylformic acid	(313C)Butanoic acid
(Z)-3-Iodoacrylic acid	2-Sulfanylbutanoate	Carbonic acid isopropyl ester	2-Bromo-2-chloroacetic acid
2-[Amino(dimethyl)azaniumyl] acetate	2-Bromosulfanylacetic acid	Deuterio 3,3-dideuterio-2-(trideuteriomethyl)prop-2-enoate	2,2-Dichloroacetic acid
Acetic acid-D	2-Chlorosulfanylacetic acid	Acrylic acid-1-13C	2-Iodoacetic acid
(2H3)Acetic (2H)acid	Acetic acid, aminomercapto-	Acrylic acid-d4	CID 71309200
Deuterio 2,2,3,3,3-pentadeuteriopropoanoate	2-Hydroxysulfanylacetic acid	Glycine-2-t	Bromoacetic acid-1-13C,18O2
(R)-(+)-2-Chloropropionic acid	Isocyanoacetate	2-Sulfinoacetic acid	2-Chloro(1,2,3-13C3)propanoic acid
3,3,3-Trifluoropropionic acid	2-Methylbut-3-ynoic acid	2-Chlorocyclopropane-1-carboxylic acid	Iodoacetic acid-1-13C
Bromofluoroacetic acid	(Methyldisulfanyl)formic acid	Bromomethylidene(dioxido)azani um	2-Chloroacetic acid
Fluoroiodoacetic acid	Prop-2-enoic acid;hydrochloride	2,3-Difluoropropanoic acid	Eisenakrylat
2-Fluoroacrylic acid	3-Methyloxaziridine-3-carboxylic acid	(Z)-3-Chloro-2-fluoroprop-2-enoic acid	Prop-2-enoic acid;silver
2,2-Difluoropropionic acid	N-Propan-2-ylcarbamoithioate	Phosphanecarboxylic acid	Chromium;prop-2-enoic acid
2-Fluoroisobutyric acid	2-Methylcyclopropane-1-carboxylate	Fluoroglycine	Ethene;prop-2-enoic acid
2,2-Bis(sulfanyl)acetic acid	2-Chloroethyl hydrogen carbonate	2-Bromopropanoate	Propa-1,2-diene;prop-2-enoic acid
Propanoyloxidanium	2-Nitrosoprop-2-enoic acid	2-Chloranylpropanoate	Carbon monoxide;ethene;prop-2-enoic acid
Aziridine-2-carboxylate	Carboxymethylphosphor ane	2-Propenethioic S-acid	Diazenyl hydrogen carbonate
Trifluoromethoxyformic Acid	2-Deuterioprop-2-enoic acid	Diiodoacetic acid	Methylamino hydrogen carbonate
Dihydroxyphosphanylformic Acid	2,3,3-Trideuterioprop-2-enoic acid	2-Deuterio-2-oxoacetic acid	Deuterio 2-fluoroprop-2-enoate
Isopropylacetate	alpha,beta-Dichloropropionate	Bromoglycine	Deuterio 2-iodoprop-2-enoate
Difluoroacetate	Aminosulfanylformic acid	Prop-2-enedithioic acid	Deuterio 2,2-dimethylpropanoate
Glyoxylate	Thietane-3-carboxylic acid	3,3-Dideuterio-2-fluoroprop-2-enoic acid	Deuterio 2-chloroprop-2-enoate
2-Chloro-2,2-difluoroacetate	Prop-2-enoate;prop-2-enoic acid	3-Bromo-but-3-enoic acid	2-Tritiobutanoic acid

Chloromethanesulfonate	Methylamino dihydrogen phosphate	2-(Methylamino)-2-sulfanylideneacetic acid	Deuterio 2,2-dideuterioacetate
Bromomethanesulfonate	3,3,3-Trideuterio-2,2-bis(trideuteriomethyl)propanoic acid	Isocyanoacetic acid	2-Chloro-2-diazenylacetic acid
Ammonia bicarbonate	Chloroiodoacetic Acid	Deuterio 3,3-dideuterio-2-fluoroprop-2-enoate	Deuterio 2-bromoprop-2-enoate
(2,2,2-Trifluoroacetyl)oxidanium	Hydroxysulfanylfurmic acid	3-Fluorobutyric acid	Carbon dioxide;prop-2-enoic acid
Methoxyformate	Disulfanylfurmic acid	2-Mercaptopropionate	2-Aminooxyacetic acid
Methylsulfate	2-Fluoranylpropanoate	2-Oxidopropanoate	Acryloyloxysilver
3-Methylbut-2-enoate	4-Oxobut-3-enoic acid	Dioxidan-2-idecarboxylate	Prop-2-enoic acid;hydrate
Mercaptoacetate	But-3-ynoate	But-3-enedithioic acid	Copper;prop-2-enoic acid
Sodium;prop-2-enoic acid;hydroxide;hydrate	Manganese;prop-2-enoic acid	2-Bromopropionic-1-13C acid	Prop-2-enoic acid;hydrate;hydrochloride
Cobalt;prop-2-enoic acid			

Table 6. Analogs of 2-bromooctanoic acid.

DL-Ethionine	2-Bromo-2-methyloctanoic acid	2,2-Dichlorohept-6-enoic acid	2-Methylocta-2,6-dienoic acid
2-Methylheptanoic acid	2-Bromo-8-methylnonanoic acid	2-Bromo-6-chlorohexanoic acid	2,2-Dibromooctanoic acid
2-Bromoheptanoic acid	5-Bromotridecanoic acid	2-[(4-Methylphenyl)methyl]prop-2-enoic acid	2-Methylocta-2,4,6-trienoic acid
Undecanoic acid, 11-bromo-	2,3-Dibromoundecanoic acid	(2E)-3-Methylhepta-2,6-dienoic acid	2,3-Dimethyloct-2-enoic acid
2-Isopropyl-5-methylhexanoic acid	2-Methyl-2-sulfanyloctanoic acid	(R)-2-Methyl-2-aminooctanoic acid	2-Methylidene-5-prop-2-enoxypentanoic acid
2-Octynoic acid	2,5-Dimethylhexanoic acid	2-Amino-2-ethyloctanoic acid	3-Hydroxy-2-methylideneoctanoic acid
3-Nitronon-2-ene	(2E)-3-Methylocta-2,7-dienoic acid	2-Iodohept-6-enoic acid	2-Nitrosooctanoic acid
2-Nitrooct-2-ene	2-Bromotridecanoic acid	Methylhexyl sulfone	2-Cyanoheptanoic acid
8-Nonynoic acid	6-Chloro-2-methyl-6-oxohexanoic acid	(2E,6E)-3-Methylocta-2,6-dienoic acid	3-Methyl-4-oxo-4-propoxybut-2-enoic acid
8-Nonenoic acid	3-(4-Ethylcyclohexyl)propanoic acid	2,2-Dimethylhept-6-ynoic acid	3-Pentylidioxirane-3-carboxylic acid
2-Bromotetradecanoic acid	2-Bromo-3-propoxypropanoic acid	3-Butoxy-2-methylpropanoic acid	(2S)-2-Ethyloctanoic acid
2-Bromododecanoic acid	Heptan-2-yl hydrogen carbonate	3-Chlorooctanoic acid	2-Propylpent-3-ynoic acid
2-Heptynoic acid	(E)-2-Methyloct-3-enoic acid	2-Bromo-5-carbomethoxypentanoic acid	Oct-4-ynoic acid
(R)-2-Ethylhexanoic acid	3-Ethylheptanoate	2-Fluorooctanoic acid	2-Hydroxy-5-methylsulfanylpentanoic acid
2-Bromohexadecanoic acid	2,2,8-Trichlorooctanoic acid	3-Fluorononanoic acid	6-Chloro-2-methylhepta-2,4,6-trienoic acid
(Butylthio)acetic acid	Pentoxy hydrogen carbonate	3-Pentylloxirane-2-carboxylic acid	2-(1,1-Ditritioethyl)-2,3,3,4,4,5,5,6,6,6-decatritiohexanoic acid

2-Ethyl-octanoic acid	alpha-Hydroxycaprylate	(2R,3S)-3-Pentylloxirane-2-carboxylic acid	2-(But-2-ynyl-diazenyl)propanoic acid
(2S)-2-Bromooctanoic acid	2-Sulfanylheptanoic acid	2,2-Difluoroheptanoic acid	3-Propylsulfanylpentanoic acid
Cyclopropanecarboxylic acid, 2-pentyl-, (1R,2R)-rel-	2-(Pentylsulfanyl)acetic acid	2-Bromodecanedioic acid	2,2-Bis(sulfanyl)hexanoic acid
IAAPVNQZSBLWKH-UHFFFAOYSA-N	Trimethylsilylheptanoic acid	2-[(4-Fluorophenyl)methyl]prop-2-enoic acid	7-Chloro-2-methylhept-2-enoic acid
2-Bromostearic acid	(E)-2,6-Dimethyloct-5-enoic acid	7-Bromononanoic acid	7-Methyl-2-nitrosooctanoic acid
2-Bromodecanoic acid	2-Methylidene-5-methylsulfanylpentanoic acid	(E)-3-Methyloct-4-enoic acid	2,5-Diiodopentanoic acid
2-Bromononanoic acid	2-Methylhexanoate	2-Bromononanedioic acid	(3R)-3-[(2S,3S)-3-Propyloxiran-2-yl]butanoic acid
2-Bromoundecanoic acid	2-Bromoheptadecanoic acid	7-Bromo-2,2-dichloroheptanoic acid	7-Chloro-2-methylhepta-2,5-dienoic acid
9,10-Dibromohexadecanoic acid	3-Bromooctadecanoic acid	2E,7-Octadienoic acid	2-Hex-2-ynoxyacetic acid
10-Bromodecanoic acid	2,3-Dibromooctadecanoic acid	Hept-1-ynylphosphonic acid	4-Ethylsulfanyl-2-methylbut-2-enoic acid
12-Bromododecanoic acid	3-Bromoicosanoic acid	(E)-4-Methyl-2-octenoic acid	3-(2-Deuteriopropionylsulfanyl)-2-methylpropanoic acid
S-Propylmercaptocysteine	6-Iodo-2-methylhexanoic acid	2-Bromooctanedioic acid	3-(3-Bromophenyl)-2-methylpropanoic acid
2-Bromo-5,5-dimethylhexanoic acid	2-(Hydroxymethyl)heptanoic acid	2-[2-(Methylthio)ethylthio]acetic acid	4-Methyloct-2-enoic acid
Dihomomethionine	15-Bromohexadecanoic acid	(E)-2-Methyloct-6-enoic acid	3-Methylnon-4-en-2-one
5-Methoxy-2-methylpentanoic acid	1-Hexylcyclopropane-1-carboxylic acid	(2E,4E,6E)-2-Methylocta-2,4,6-trienoic acid	2-(Prop-2-enoxamino)but-2-enoic acid
10,11-Dibromoundecanoic acid	3,3-Dimethyl-2-methylideneheptanoic acid	2-Methyl-2-octenoic acid	2,2,3-Trifluorooctanoic acid
2,7-Dibromooctanedioic acid	(E)-5-Ethylsulfanyl-2-methylpent-2-enoic acid	2-Methylnon-8-enoic acid	1-(5,5-Dimethylhexyl)-2-methylcyclopropane-1-carboxylic acid
3-(Ethyl-disulfanyl)alanine	(2E,4E,6E)-3-Methylocta-2,4,6-trienoic acid	2-Methyloct-7-enoic acid	2,7-Dimethyloct-3-enoic acid
2-Amino-2-methyl-4-propylsulfanylbutanoic acid	2-(4-Ethylcyclohexyl)propanoic acid	(E)-2,3,5-Trimethylhex-2-enoic acid	2-Methyl-5-methylsulfanylpentanoic acid
2-Bromo-3-fluoroheptanoic acid	(4E)-3-Methylocta-4,7-dienoic acid	(Z)-2-Propylhept-2-enoic acid	7-Fluoro-2-methylhept-2-enoic acid
2,6-Dibromohexanoic acid	3-Bromoheptanoic acid	(E)-6-Ethyl-2-methyloct-2-enoic acid	2-[(4-Iodophenyl)methyl]prop-2-enoic acid
2-Octanesulfonic acid	2-Aminoheptanoate	3-Carboxybut-3-enyl-ethyl-dimethylazanium	6,6-Difluoro-2-methylhex-2-enoic acid
2,4-Dimethyloct-2-enoic acid	3-Bromodecanoic acid	2,7-Dimethyloctanoic acid	5,5,6,6-Tetrafluoro-2-methylhex-2-enoic acid
3-(Ethyl-disulfanyl)-l-alanine	3-Bromononanoic acid	8-Chloro-2-methylideneoctanoic acid	1-Chloro-4-propylcyclohexane-1-carboxylic acid
3-Methyloct-6-enoic acid	3-Bromoundecanoic acid	4-(2-Chloroethoxy)-2-methylidenebutanoic acid	2-(6-Methoxypyridin-3-yl)but-2-enoic acid

2,11-Dibromododecanedioic acid	3-Bromooctanoic acid	Benzenepropanoic acid, 4-bromo- α -methylene-	2-Pentylcyclopropene-1-carboxylic acid
Undecanoic acid, 10-bromo-	Heptane-2-carboxylate	2-Methoxyheptanoic acid	7-Bromo-2-nitrosoheptanoic acid
13-Bromotetradecanoic acid	(E)-2,3-Dimethyloct-2-enoic acid	1-(2-Methylbutan-2-ylperoxy)prop-2-enyl hydrogen carbonate	(E)-7-Fluoro-2-methylhept-2-enoic acid
14-Bromopentadecanoic acid	(Carbonic acid hexyl)anion	9-Bromooctadecanoic acid	3-Amino-2-methyloctanoic acid
9-Bromononanoic acid	Carboxyheptal	9-Bromododecanoic acid	(Z)-2-Methylnon-4-enoic acid
8-Bromooctanoic acid	Butyl carboxy carbonate	2-(2,2-Dichloroethyl)hexanoic acid	(E)-2-Methyl-5-(trimethylazaniumyl)pent-2-enoate
15-Bromopentadecanoic acid	(R)-2-Amino-3-(2-propynylthio)propanoic Acid	3-(5-Methylhexyl)dioxirane-3-carboxylic acid	9-Bromo-8-oxononanoic acid
4,6-Octadienoic acid	(2E,4E,6Z)-3,7-Dimethyl-8-oxoocta-2,4,6-trienoic acid	6-Bromoheptanoic acid	(2S)-5,5-Difluoro-2-methylheptanoic acid
(2R)-2-Bromo-3-(4-fluorophenyl)propanoic acid	2-Pentylcyclopropane-1-carboxylic acid	(E)-2,2-Dimethyloct-3-enoic acid	FCDKDIKSBBITRR-UHFFFAOYSA-N
(S)-2-Aminooctanoic acid	(2R)-2-(Butylsulfanylamino)-3-sulfanylpropanoic acid	2-(Sulfanylmethyl)hexanoic acid	3,3-Difluoro-2-[(2R)-2-fluoropropyl]pentanoic acid
2,2-Dichlorooctanoic Acid	(2R)-3-Cyclohexyl-2-methylpropanoic acid	(E)-4-Iodo-2-methyloct-2-enoic acid	(4R)-4-Fluoro-2-propylpentanoic acid
Hexane-1-sulfonate	5-Bromoheptanoic acid	2-(Butylsulfanylamino)-3-sulfanylpropanoic acid	(2S)-2-Bromoheptanoic acid
Heptane-1-sulfonate	2-Methyl-3-(2-methylprop-2-enoxy)propanoic acid	6-Bromo-2,3-dimethylhexanoic acid	(2R)-2-Ethylheptanoic acid
9-Bromodecanoic acid	2-Methylidene-4-propoxybutanoic acid	2-Fluoroheptanoic acid	(2S)-2-Methylnon-8-enoic acid
2-Pentyl-3-butenic acid	2-Methyl-3-pentyliminobutanoic acid	(E)-2-Methyldec-8-enoic acid	(E)-2,6-Dimethyloct-6-enoic acid
3-Methylheptanoic acid	6-Chloro-2-ethyl-6-oxohexanoic acid	Hexyl hydrogen carbonate	2,6-Dimethylhept-6-enoate
(Z)-3-Octenoic acid	3,8-Dibromooctanoic acid	14-Bromotetradecanoic acid	2,6-Dimethylhept-6-enoic acid
3-Octenoic acid	(2E)-3,7-Dimethylocta-2,7-dienoic acid	3-(Ethyldisulfanyl)butanoic acid	LJHGUZODPZQEIO-UHFFFAOYSA-N
6E-Octenoic acid	6-Ethylsulfanyl-2-methylidenehexanoic acid	2-Fluoro-2-methyloctanoic acid	2-Azaniumylheptanoate
(R)-2-Hydroxycaprylic acid	5-Methoxy-2-methylideneheptanoic acid	(E)-2-(Butylamino)but-2-enoic acid	5-Iodo-2,2-dimethylpentanoic acid
11-Bromodecanoic acid	3-Bromodocosanoic acid	4-Bromodecanoic acid	2,2-Dimethyl-4-methylsulfanylbutanoic acid
12-Bromo-octadecanoic acid	(E)-3-(4-Bromophenyl)but-2-enoic acid	2-(But-3-ynylthio)acetic acid	(E)-2-Methyl-4-prop-2-enoxybut-2-enoic acid
(R)-2-Aminoheptanoic acid	3-[(E)-But-2-enyl]sulfanylpropanoic acid	2-But-3-ynylsulfanylpropanoic acid	2-[1-(3-Bromopropyl)cyclopropyl]propanoic acid
(Z)-4-Ethyl-2-methyl-2-octenoic acid	(3E)-4-Methyl-3-nonen-2-one	2-Methylhept-6-ynoic acid	3-(3-Iodophenyl)-2-methylpropanoic acid
(Z)-3-Methyl-2-octenoic acid	N-Hydroxydihomomethionine	2,2-Bis(sulfanyl)octanoic acid	3-(4-Bromophenyl)but-2-enoic acid
2,4,6-Octatrienoic acid	D-Homomethionine	6-Bromo-2-ethylhexanoic acid	1-(5-Iodopentyl)cyclopropane-1-carboxylic acid

(E)-3-(2,5-Dichlorothiophen-3-yl)-2-methylprop-2-enoic acid	(2S)-2-Aminooct-7-ynoic acid	2-Phosphanyloxyoctanoic acid	5-Pentyl-1,3,4-oxadiazole-2-carboxylic acid
3-Methyl-2-octenoic acid	2-Azaniumyloctanoate	3-Methyl-2-methylideneheptanoic acid	2-(4-Ethenylphenyl)but-3-enoic acid
(Z)-3-Iodo-2-octenoic acid	2-Azaniumyl-5-methylsulfanylpentanoate	2-(2-Sulfanylethyl)octanoic acid	1-(5-Chloropentyl)cyclopropane-1-carboxylic acid
3-(4-Bromophenyl)butanoic acid	3-(3-Butenylthio)alanine	5-Ethoxy-2-methylhexanoic acid	3-(4-Iodophenyl)butanoic acid
(E)-3-Methyloct-6-enoic acid	(S)-2-Hydroxymethyl-hexanoic acid	6-Bromodecanoic acid	Octanoic acid-7-13C
(E)-2-Nitrooct-2-ene	(R)-3-(4-Fluorophenyl)butanoic acid	Hex-5-enyl hydrogen carbonate	(1,2,3,4,5,6,7,8-13C8)Octanoic acid
6-Heptenoate	(S)-Butyl-D-Cys	2-Sulfanyloctanoic acid	(213C)Octanoic acid
(2S)-2-Hydroxyoctanoic acid	(3S)-3-(4-Bromophenyl)butanoic acid	2-(Sulfanylmethyl)heptanoic acid	(5,6,7,8-13C4)Octanoic acid
Hexyl-dioxido-oxo-lambda5-phosphane	(3R)-3-(4-Bromophenyl)butanoic acid	2-Methyl-4-(2-oxoethylsulfanyl)butanoic acid	2-Ethylhexanoic-d15 acid
(R)-2-Methylheptanoic acid	2-(Dimethylamino)octanoic acid	6-Bromoicosanoic acid	3,7-Octadienoic acid
4-(5-Bromothiophen-2-yl)butanoic Acid	2-Butylsulfanylbutanoic acid	2-Fluoro-4-propoxybutanoic acid	3-Methyloct-4-enoic acid
3-Bromohexadecanoic acid	2-(Aminomethyl)heptanoic acid	(Z)-2-Chloro-3-(4-chlorophenyl)but-2-enoic acid	3-Methyloct-4-ynoic acid
alpha-Pentylacrylic Acid	2-(Butylazaniumylidynemethyl)prop-2-enoate	1-Sulfanylhexane-1-sulfonic acid	Acetic acid, (butylcyclopropylidene)-
2-(Propan-2-yl)hex-5-enoic acid	(2S)-2-Amino-3-(ethyldisulfanyl)propanoic acid	2-Iodo-5-propylbenzoic acid	2,2-Dibromohexadecanoic acid
2-Bromo-1-octanol	3-(Ethylhydroxyphosphinyl)-2-methylpropionic acid	2,8-Dibromooctanoic acid	Tetradecanoic acid, dibromo-
3-Fluorocaprylic acid	2-Ammonio-6-(methylsulfanyl)hexanoate	Octa-2,4,6-trienoic acid	Tetradecanoic acid, tetrabromo-
3-Bromononan-2-one	4-Methyloct-2-ynoic acid	6-Bromo-2-methylhexanoic acid	Nonanoic acid, 2,3-dibromo-
(R)-2-Amino-2-ethyloctanoic acid	2-Methylhept-2-enoic acid	4-Bromoheptanoic acid	6-Heptenoic acid, 2-ethylidene-
6-Methyl-2-heptenoic acid	2,6-Heptadienoic acid, 3-methyl-, (E)-	2-Bromohenicosanoic acid	5,8-Dibromooctanoic acid
1-Octanol, 2-iodo-	2,2-Difluorooctanoate	20-Bromohenicosanoic acid	6-Heptenoic acid, 2-amino-, (2R)-
Dodecanedioic acid, 2-bromo-2-Hydroxy-2-methyloctanoic acid	7-Bromooctanoic acid	7-Iodo-2-methylheptanoic acid	3-Methyloct-2-en-6-ynoic acid
(2E,4E,6S)-6-Methyl-2,4-octadienoic acid	2-Methylnon-3-enoic acid	2-Ethyl-5-iodopentanoic acid	8,9-Dibromononanoic acid
2-Chlorooctanoic Acid	Butyl dicarbonate	7-Bromo-3-methylheptanoic acid	2-Methylnon-4-en-8-ynoic acid
2-Bromoheptanal	3-Methyl-2-heptenoic acid	7-Bromo-2-methylheptanoic acid	2-Methylocta-2,7-dienoic acid
Hexyl(methyl)carbamidithioic acid	3,7-Dimethyloct-2-enoic acid	5-Bromononanedioic acid	3-Methylnon-4-ynal
Propanoic acid, 2-(4-ethylcyclohexylidene)-	Hexyl(hydroxy)carbamic acid	2-Bromoheptanedioic acid	2,6-Dimethyloct-6-enoic acid
(2S)-2-Fluoroheptanoic acid	2-Methylideneocta-4,6-dienoic acid	2-Bromoundecanedioic acid	4-(Methyldithio)pentanoic acid
(E)-7-Bromohept-2-enoic acid	(2S)-2-Fluoro-2-methylheptanoic acid	2-(3-Bromopropylsulfanyl)acetic acid	2-Methyloct-7-ynoic acid
	5-Ethylsulfanylhex-2-enoic acid	6-Methyl-2-sulfanylheptanoic acid	2-Methyloct-4-enoic acid

2-Bromooctanal	Octa-4,7-dienoic acid	(2Z)-2-Ethylideneheptanoic acid	Hex-1-enyl hydrogen carbonate
(R)-2-Bromooctanoic acid	3,6-Dimethylhept-2-enoic acid	2-Propyl-2-sulfanyloctanoic acid	3-Prop-2-enylsulfanylprop-2-enoic acid
(S)-2-Methylhept-6-enoic acid	2-Ethylhex-4-enoic acid	2-Isocyanohexanoic acid	2-Methyl-4-prop-2-enoxybut-2-enoic acid
(Z)-2-Bromo-2-octenoic acid	2-Nitrosoheptanoic acid	(2R)-2-Bromo-3-propoxypropanoic acid	2,3-Dimethylhex-5-ynoic acid
(R)-2-Bromohexadecanoic acid	3-Methylocta-2,7-dienoic acid	3-Allylsulfanyl-2-methylpropanoic acid	6-Bromohexadecanoic acid
2-Bromooctanoyl Chloride	2-(Propan-2-yl)heptanoic acid	(E)-7-Hydroxy-2-methylhept-2-enoic acid	5,6-Dibromodecanoic acid
(R)-2-Methyloctanoic acid	Octa-2,6-dienoic acid	Oct-2-ene-2-carboxylic acid	6-Bromooctanoic acid
(2S)-2-Methyl-7-bromoheptanoic acid	Pentylsulfanylformic acid	5-(Methylthio)Pentanoic acid	(2R)-2-Bromoheptanoic acid
Tridecanoic acid, 13-bromo-	3-Butylsulfanylprop-2-enoic acid	(Z)-2-Prop-2-enylpent-3-enoic acid	4-Bromooctanoic acid
3-Butylsulfanyl-butan-2-one	1-Heptene, 1-nitro-, (1E)-	cis-2-Pentylcyclopropanecarboxylic acid	2,13-Dibromotetradecanedioic acid
(2S)-2-Amino-2-methyloctanoic acid	2,3-Dibromooctanoic acid	[(E)-Hex-1-enyl] hydrogen carbonate	(6S)-6-Bromoheptanoic acid
(S)-2-Bromohexadecanoic acid	7-Bromohepta-2,4-dienoic acid	2-Amino-3-prop-2-ynylsulfanylpropionic acid	2-Bromooctanoic acid;ethane
alpha-Bromooctanonitrile	2-Butoxybut-3-enoic acid	3-Prop-2-enylsulfanyl-2-(sulfanylamino)propanoic acid	4-Bromononadecanoic acid
Bromlignocerinsaeure	3,5-Dimethylocta-2,6-dienoic acid	5-Hydroxy-4-methyl-5-oxopentane-1-sulfinate	6-Bromoundecanoic acid
2,2-Difluoro-5-hexenoic acid	2-Chloro-3-(4-chlorophenyl)but-2-enoic acid	2-Oxo-octanoate	2,10-Dibromoundecanedioic acid
(2S)-Methyloctanoic acid	4-(2,2-Dimethylhydrazinyl)-2-methylbutanoic acid	2-Methoxyoctanoic acid	(2S)-2-Bromo-7-methoxy-7-oxoheptanoic acid
2-Amino-4-(methylsulfanylmethylsulfanyl)butanoic acid	2-Carboxy-N-propylprop-2-enenitrilium	2-Ethoxyoctanoic acid	(2S)-2-Bromotetracosanoic acid
2-Amino-4-prop-2-enylsulfanylbutanoic acid	(R)-2-Bromodecanoic acid	6-Methyl-2-propylheptanoic acid	Chloro 2-bromooctanoate
(2R)-2,6-Dimethylheptanoic acid	(S)-2-Bromodecanoic acid	2-Bromo-7-methoxy-7-oxoheptanoic acid	2-Bromooctanoic acid;hydrochloride
(E)-2-Methyl-4-octenoic acid	(2R)-2-Fluoro-2-methyloctanoic acid	(E)-3,4,4-Trimethyloct-2-enoic acid	2-Bromooctadecanoic acid;hydrobromide
2-Methyl-2-heptene-6-ynoic acid	2-Methylidenenon-8-enoic acid	(E)-3,6-Dimethylhept-2-enoic acid	7-Bromooctadecanoic acid;methane
2-Ethynylheptanoic acid	(S)-2-Methylnonanoic acid	13-Bromodocosanoic acid	7-Bromooctadecanoic acid
Octanoic acid, 3-hydroxy-2-methyl-	(2R)-2-Chlorooctanoic acid	12-Bromodocosanoic acid	10-Bromohexadecanoic acid
3,6-Dibromo-hexanoic acid	2-Octenoic acid, 2-bromo-	8-Bromooctadecanoic acid	2-Bromooctadecanoic acid;calcium
(Z)-4-Nonenoic acid	7-Bromomyristic acid	1-Hexylcyclobutane-1-carboxylic acid	7-Bromo-2-methylhept-2-enoic acid
3-Nitrononane	3-Cyclohexyl-2-methylprop-2-enoic acid	(2E)-2,6-Dimethylhepta-2,6-dienoic acid	3-Methoxycarbonyloxy-2-methylpropanoic acid
2-(Methylamino)octanoic acid	(S)-3-Fluorononanoic acid	8-Bromodecanoic acid	2,3-Dimethylocta-2,4,6-trienoic acid

2-(Prop-2-en-1-ylsulfanyl)propanoic acid	7-Bromohept-2-enoic acid	2-(3-Chloropropylsulfanylmethylsulfanyl)acetic acid	2-(Deuterioamino)octanoic acid
2-[(E)-But-2-enyl]sulfanylpropanoic acid	2-Ethenylsulfonyl-2-methylbutane	2-Pentylsulfanylpropanoic acid	(R)-2-Methylhept-6-enoic acid
2-Prop-2-ynylsulfanylpropanoic acid	2-(Prop-1-EN-2-YL)hexanoic acid	2-Ethyl-6-heptenoic acid	2-(Butoxymethylidene)butanoic acid
(3E)-3,7-Octadienoic acid	Hept-1-ene-1-sulfonic acid	6-Bromo-2-chlorohexanoic acid	3-Bromo-2-(propoxymethylidene)prop-2-enoic acid
2,7-Dichloroheptanoic acid	5-Bromo-6-oxoheptanoic acid	5-Bromooctanoic acid	2-Fluoro-4-methyloctanoic acid
2-Chloroheptanoic acid	(2R)-2-Bromotetracosanoic acid	1-Butylcyclopropane-1-carboxylic acid	2-Methyl-5-(2-methyloxiran-2-yl)pent-2-enoic acid
3-Octynoic acid	7-Iodo-2-methylideneheptanoic acid	8-Bromo-2-diazo-3-oxooctanoic acid	5-Ethyl-2-methylidenehepta-3,5-dienoic acid
(4E)-Octa-4,7-dienoic acid	2,3,4-Trifluorohepta-2,4-dienoic acid	Deuterio 2,3,3,4,4,5,5,6,6-decadeuterio-2-(1,1,2,2-tetradeuterioethyl)hexanoate	(2S)-2-Chloro-3-(2-methylsulfanylethylsulfanyl)propanoic acid
(2E,6E)-2,6-Octadienoic acid	2-Cyanooct-2-enoic acid	2,2-Difluoro-3-propylsulfanylpropanoic acid	2,5,5-Trimethylhept-2-enoic acid
(E)-2-Ethylhex-4-enoic acid	2,2-Dimethyl-3-octenoic acid	3-[[[(Z)-But-2-enylidene]amino]-2-methylpropanoic acid	2,2,3,3,4,4,5,5-Octadeuteriooctanoic acid
2-(p-Chlorobenzyl)acrylic acid	3-Hexyldioxirane-3-carboxylic acid	10-Bromooctadecanoic acid	(6S)-2,6-Dimethylocta-2,7-dienoic acid
2-Chloro-2-ethylhexanoic acid	2-Ethylhept-2-enoic acid	SDCUZZNMYRHPKB-UHFFFAOYSA-N	3-Bromo-2-(ethoxymethylidene)prop-2-enoic acid
6-Heptenoic acid, 2-methyl-	3-Methylocta-2,4,6-trienoic acid	ZNMJIMWVHNXQJZ-UHFFFAOYSA-N	3-Methyloct-2-en-2-yl formate
Octanoic acid, 2-ethynyl-	(3R)-3-Hydroxy-7-octenoic acid	AFIBKBGBUJQOHM-UHFFFAOYSA-N	2-Methyl-3-[[[(Z)-pent-2-enylidene]amino]propanoic acid
11,12-Dibromododecanoic acid	7-Fluoro-2-methylideneheptanoic acid	QTBGWVMNSNFAKI-UHFFFAOYSA-M	(2S)-2-Bromo-3-(2-methylsulfanylethylsulfanyl)propanoic acid
2-Bromoicosanoic acid	2,5,6-Trimethylhepta-2,6-dienoic acid	FCWILHQRLMWXPK-UHFFFAOYSA-N	2,2-Dimethylnon-3-enoic acid
Butylsulfanylformic acid	(2R)-2-Fluorooctanoic acid	KGRHZIASHRXWFD-UHFFFAOYSA-N	
Nonadecanoic acid, 2-bromo-	(S)-2-Fluorooctanoic acid	2-Bromopentadecanoic acid	(2R)-2-Fluoroheptanoic acid
Monobrombehensaure	3,4-Dimethyloct-2-enoic acid	2-(4-Vinylphenyl)propionic acid	3-Butanoyloxy-2-methylpropanoic acid

In certain instances, the LPS synthesis inhibitor (e.g., core oligosaccharide synthesis inhibitor, e.g., L-Heptoses synthesis inhibitor) is a sugar. For example, the sugar may be ADP-2-fluoroheptose (AFH). Alternatively, the sugar may be 2-aryl-5-methyl-4-(5-aryl-furan-2-yl-methylene)-2,4-dihydro-pyrazol-3-ones (DHPO). In some instances, the sugar is AFH and DHPO. In some instances, the sugar is a structural analog of ADP-beta-L-glycero-D-manno-heptopyranose. For example, the sugar may be one or more compounds in Table 7. In some instances, the sugar is ADP-2-deoxy-2-fluoro-heptose. In some instances, the LPS inhibitor is a fullerene hexa-adducts bearing 12 copies of peripheral sugars displaying the mannopyranose core structure of bacterial l,d-heptoside.

Table 7. Analogs of ADP-beta-L-glycero-D-manno-heptopyranose

Compound Number	IUPAC Name
20	(4aR,6R,7R)-6-(6-aminopurin-9-yl)-2-hydroxy-2-oxo-4a,6,7,7a-tetrahydro-4H-furo[3,2-d][1,3,2]dioxaphosphinin-7-ol
21	(2R,4aR,6R,7R,7aS)-6-(6-aminopurin-9-yl)-2-methoxy-2-oxo-4a,6,7,7a-tetrahydro-4H-furo[3,2-d][1,3,2]dioxaphosphinin-7-ol
22	(2S,4aR,6R,7R,7aS)-6-(6-aminopurin-9-yl)-2-methoxy-2-oxo-4a,6,7,7a-tetrahydro-4H-furo[3,2-d][1,3,2]dioxaphosphinin-7-ol
23	(2R,4aR,6R,7R,7aS)-6-(6-aminopurin-9-yl)-2-ethoxy-2-oxo-4a,6,7,7a-tetrahydro-4H-furo[3,2-d][1,3,2]dioxaphosphinin-7-ol
24	(2S,4aR,6R,7R,7aS)-6-(6-aminopurin-9-yl)-2-ethoxy-2-oxo-4a,6,7,7a-tetrahydro-4H-furo[3,2-d][1,3,2]dioxaphosphinin-7-ol
25	(4aR,6R,7R,7aS)-6-(6-amino-2-butylpurin-9-yl)-2-hydroxy-2-oxo-4a,6,7,7a-tetrahydro-4H-furo[3,2-d][1,3,2]dioxaphosphinin-7-ol
26	(4aR,7R,7aS)-6-(6-aminopurin-9-yl)-2-oxido-2-oxo-4a,6,7,7a-tetrahydro-4H-furo[3,2-d][1,3,2]dioxaphosphinin-7-ol
27	(4aR,6R)-6-(6-aminopurin-9-yl)-2-hydroxy-2-oxo-4a,6,7,7a-tetrahydro-4H-furo[3,2-d][1,3,2]dioxaphosphinin-7-ol
28	(4aR,6R,7R,7aS)-6-(6-aminopurin-9-yl)-2-methoxy-2-oxo-4a,6,7,7a-tetrahydro-4H-furo[3,2-d][1,3,2]dioxaphosphinin-7-ol
29	(4aR,6R,7R,7aS)-6-(6-aminopurin-9-yl)-2-oxido-2-oxo-4a,6,7,7a-tetrahydro-4H-furo[3,2-d][1,3,2]dioxaphosphinin-7-ol
30	(4aR,6R,7aR)-6-(6-aminopurin-9-yl)-2-hydroxy-2-oxo-4a,6,7,7a-tetrahydro-4H-furo[3,2-d][1,3,2]dioxaphosphinin-7-ol
31	(4aS,6S,7R,7aR)-6-(6-aminopurin-9-yl)-2-hydroxy-2-oxo-4a,6,7,7a-tetrahydro-4H-furo[3,2-d][1,3,2]dioxaphosphinin-7-ol
32	(4aS,6R,7S,7aR)-6-(6-aminopurin-9-yl)-2-hydroxy-2-oxo-4a,6,7,7a-tetrahydro-4H-furo[3,2-d][1,3,2]dioxaphosphinin-7-ol
33	(4aR,6R,7S,7aS)-6-(6-aminopurin-9-yl)-2-hydroxy-2-oxo-4a,6,7,7a-tetrahydro-4H-furo[3,2-d][1,3,2]dioxaphosphinin-7-ol
34	6-(6-aminopurin-9-yl)-2-ethoxy-2-oxo-4a,6,7,7a-tetrahydro-4H-furo[3,2-d][1,3,2]dioxaphosphinin-7-ol
35	(4aS,6S,7R,7aS)-6-(6-aminopurin-9-yl)-2-hydroxy-2-oxo-4a,6,7,7a-tetrahydro-4H-furo[3,2-d][1,3,2]dioxaphosphinin-7-ol
36	6-(6-aminopurin-9-yl)-2-methoxy-2-oxo-4a,6,7,7a-tetrahydro-4H-furo[3,2-d][1,3,2]dioxaphosphinin-7-ol

37	(4aR,6R,7R,7aS)-6-(6-aminopurin-9-yl)-2-hydroxy-2-oxo-4a,6,7,7a-tetrahydro-4H-furo[3,2-d][1,3,2]dioxaphosphinin-7-ol
38	6-(6-aminopurin-9-yl)-2-hydroxy-2-oxo-4a,6,7,7a-tetrahydro-4H-furo[3,2-d][1,3,2]dioxaphosphinin-7-ol

In another example, undecaprenyl-pyrophosphate (UPP) is a 55-carbon polyisoprenoid lipid carrier that is required to transport peptidoglycan precursors across the cell membrane during bacterial peptidoglycan synthesis. Undecaprenyl pyrophosphate phosphatases (Upp-Pases, e.g., UppP or bcrC) are required for the synthesis and recycling of UPP. Accordingly, in some instances, the bacterial colonization-disrupting agent is an inhibitor of a Upp-Pase, e.g., a UppP inhibitor. In some instances, the UppP inhibitor is bacitracin, tripropeptin C (TPPC), a lipophilic hydroxyalkyl phosphonic acid, or a series of benzoic acids and phenylphosphonic acids.

In some instances, the bacterial colonization-disrupting agent alters the motility of the bacterial cell by, for example, targeting the function (e.g., rotation) of flagella. Accordingly, in some instances, the bacterial colonization-disrupting agent is a flagellar function inhibitor. In some instances, the flagellar function inhibitor is cellulose.

The bacterial colonization-disrupting agent may be used in a composition containing a single agent or may be used in a composition containing a mixture of different bacterial colonization-disrupting agents. The composition including the bacterial colonization-disrupting agent may include any number or type of bacterial colonization-disrupting agents, such as at least about any one of 1 bacterial colonization-disrupting agent, 2, 3, 4, 5, 10, 15, 20, or more bacterial colonization-disrupting agents.

The bacterial colonization-disrupting agent may be formulated in a composition for any of the uses described herein. A suitable concentration of each bacterial colonization-disrupting agent in the composition depends on factors such as efficacy, stability of the bacterial colonization-disrupting agent, number of distinct bacterial colonization-disrupting agents, the formulation, and methods of application of the composition. Exemplary formulations and compositions including bacterial colonization-disrupting agents are described in the section entitled "Formulations and Compositions."

ii. Screening Methods to Identify Bacterial Colonization-Disrupting Agents

Included herein is a screening assay for identifying bacterial colonization-disrupting agents that are effective to inhibit colonization of bacteria in an insect and thereby decrease the insect's fitness. The screening assay involves identifying a bacterial colonization-disrupting agent by (a) exposing a target insect to one or more agents; and (b) identifying an agent that (i) decreases the fitness of the target insect, and (ii) inhibits colonization of a bacterium in the gut of the target insect.

Host fitness may be measured by any parameters described herein, including, but not limited to, measurements of reproductive rate, lifespan, mobility, fecundity, body weight, metabolic rate or activity, or survival in comparison to an insect to which the candidate agent has not been administered. The decrease in fitness may be compared to a predetermined threshold or a reference level. For example, the decrease in fitness (e.g., overall survival) may be a decrease of about 2%, 5%, 10%, 20%, 30%, 40%,

50%, 60%, 70%, 80%, 90%, 100%, or more than 100% relative to a reference level (e.g., untreated insect).

Inhibition of bacterial colonization can be measured by a number of methods known in the art, including *in vitro* or *in vivo* assays. Changes to colonization of bacteria in the insect as a consequence of the agent may be determined by methods including, but not limited to, polymerase chain reaction (PCR), quantitative PCR, real-time PCR, flow cytometry, microarray, fluorescence microscopy, transmission electron microscopy, fluorescence in situ hybridization (e.g., FISH), and DNA sequencing. The decrease in colonization may be compared to a predetermined threshold or a reference level. For example, the decrease in colonization may be a decrease of about 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or more than 100% relative to a reference level (e.g., untreated bacteria).

III. Target Bacteria

The bacteria targeted by the bacterial colonization-disrupting agent described herein may include any bacteria resident in the gut of the host, or a cell or organ therein, including, but not limited to, any bacteria described herein. Bacteria resident in the host may include, for example, symbiotic (e.g., endosymbiotic microorganisms that provide beneficial nutrients or enzymes to the host) pathogenic bacteria, or commensal microorganisms. An endosymbiotic microorganism may be a primary endosymbiont or a secondary endosymbiont. A symbiotic bacteria may be an obligate symbiont of the host or a facultative symbiont of the host.

Microorganisms resident in the host may be acquired by any mode of transmission, including vertical, horizontal, or multiple origins of transmission. Transmission modes of insect symbionts includes environmental determination, coprophagy, smearing of brood cell or egg surface, social acquisition, capsule transmission or infection via jelly-like secretions. Some symbionts, like gut symbionts, are horizontally acquired from the environment in each generation. For example, the bean bug, *Riptortus pedestris* (Hemiptera: Alydidae), harbors a specific gut symbiont of the genus *Burkholderia*, which is acquired orally from the environment by second-instar nymphs. Bean bugs have a specialized symbiotic organ (crypts) in a posterior midgut fourth region (M4) to host the symbionts.

Exemplary bacteria that may be targeted in accordance with the methods and compositions provided herein, include, but are not limited to, *Xenorhabdus* spp, *Photorhabdus* spp, *Candidatus* spp, *Pantoea* spp, *Buchnera* spp, *Blattabacterium* spp, *Baumania* spp, *Wigglesworthia* spp, *Wolbachia* spp, *Rickettsia* spp, *Orientia* spp, *Sodalis* spp, *Burkholderia* spp, *Cupriavidus* spp, *Frankia* spp, *Snirrhizobium* spp, *Streptococcus* spp, *Wolinella* spp, *Xylella* spp (e.g., *Xylella fastidiosa*), *Erwinia* spp, *Agrobacterium* spp, *Bacillus* spp, *Commensalibacter* spp. (e.g., *Commensalibacter intestine*), *Paenibacillus* spp, *Streptomyces* spp, *Micrococcus* spp, *Corynebacterium* spp, *Acetobacter* spp (e.g., *Acetobacter pomorum*), *Cyanobacteria* spp, *Salmonella* spp, *Rhodococcus* spp, *Pseudomonas* spp, *Lactobacillus* spp (e.g., *Lactobacillus plantarum*), *Lysobacter* spp., *Herbaspirillum* spp., *Enterococcus* spp, *Gluconobacter* spp. (e.g., *Gluconobacter morbifer*), *Alcaligenes* spp, *Hamiltonella* spp., *Klebsiella* spp, *Paenibacillus* spp, *Serratia* spp., *Arthrobacter* spp, *Azotobacter* spp., *Corynebacterium* spp, *Brevibacterium* spp, *Regiella* spp. (e.g., *Regiella insecticola*), *Thermus* spp, *Pseudomonas* spp, *Clostridium* spp, *Mortierella* spp. (e.g., *Mortierella elongata*), or *Escherichia* spp.

Non-limiting examples of bacteria that may be targeted by the methods and compositions provided herein are shown in Table 8. In some instances, the 16S rRNA sequence of the bacteria targeted by the bacterial colonization-disrupting agent has at least 50%, 60%, 70%, 80%, 85%, 90%, 95%, 97%, 99%, 99.9%, or 100% identity with a sequence listed in Table 8.

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Table 8: Examples of Target Bacteria and Host Insects

Primary endosymbiont	Host	Location	16S rRNA
Gamma proteobacteria			
<i>Carsonella ruddii</i>	Psyllids (Psylloidea)	bacteriocytes	TATCCAGCCACAGGTTCCCCTA CAGCTACCTTGTTACGACTTCA CCCCAGTTACAAATCATACCGTT GTAATAGTAAAATTACTTATGAT ACAATTTACTTCCATGGTGTGAC GGGCGGTGTGTACAAGGCTCG AGAACGTATTCACCGTAACATTC TGATTTACGATTACTAGCGATTTC CAACTTCATGAAATCGAGTTACA GATTTCAATCCGAACTAAGAATA TTTTTTAAGATTAGCATTATGTT GCCATATAGCATATAACTTTTTG TAATACTCATTGTAGCACGTGTG TAGCCCTACTTATAAGGGCCAT GATGACTTGACGTCGTCTCTCAC CTTCTCCAATTTATCATTGGCA GTTTCTTATTAGTTCTAATATATT TTTAGTAAAATAAGATAAGGGTT GCGCTCGTTATAGGACTTAACC CAACATTTACAACACGAGCTG ACGACAGCCATGCAGCACCTGT CTCAAAGCTAAAAAGCTTTATT ATTTCTAATAAATTCTTTGGATG TCAAAAGTAGGTAAGATTTTTTCG TGTTGTATCGAATTAAACCACAT GCTCCACCGCTTGTGCGAGCCC CCGTCAATTCATTTGAGTTTTAA CCTTGCGGTCGTAATCCCCAGG CGGTCAACTTAACGCGTTAGCT TTTTCACTAAAAATATATACTTT TTTTCATAAAACAAAATTACAATT

		ATAATATTTAATAAATAGTTGAC ATCGTTTACTGCATGGACTACC AGGGTATCTAATCCTGTTTGCTC CCCATGCTTTCGTGTATTAGTGT CAGTATTAATAAGAAATACGCC TTCGCCACTAGTATTCTTTCAGA TATCTAAGCATTTCAGTGCTACT CCTGAAATTCTAATTTCTTCTTTT ATACTCAAGTTTATAAGTATTAA TTTCAATATTAAATTACTTTAATA AATTTAAAAATTAATTTTAAAAA CAACCTGCACACCCTTTACGCC CAATAATTCCGATTAACGCTTGC ACCCCTCGTATTACCGCGGCTG CTGGCACGAAGTTAGCCGGTGC TTCTTTTACAAATAACGTCAAAG ATAATATTTTTTTATTATAAAATC TCTTCTTACTTTGTTGAAAGTGT TTTACAACCCTAAGGCCTTCTTC ACACACGCGATATAGCTGGATC AAGCTTTGCTCATTGTCCAATA TCCCCCACTGCTGCCTTCCGTA AAAGTTTGGGCCGTGTCTCAGT CCCAATGTGGTTGTTTCATCCTCT AAGATCAACTACGAATCATAGTC TTGTAAAGCTTTTACTTTAACAA CTAACTAATTCGATATAAGCTCT TCTATTAGCGAACGACATTCTC GTTCTTTATCCATTAGGATACAT ATTGAATTACTATACATTTCTATA TACTTTTCTAATACTAATAGGTA GATTCTTATATATTACTCACCCG TTCGCTGCTAATTATTTTAAAT AATTCGCACAACCTTGCATGTGTT AAGCTTATCGCTAGCGTTCAAT CTGAGCTATGATCAAACCTCA (SEQ ID NO: 9)
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<i>Candidatus Portiera aleyrodidarum BT-B</i>	whiteflies (Aleyrodoidea)	bacteriocytes	AAGAGTTTGATCATGGCTCAGA TTGAACGCTAGCGGCAGACATA ACACATGCAAGTCGAGCGGCAT CATACAGGTTGGCAAGCGGCG CACGGGTGAGTAATACATGTAA ATATACCTAAAAGTGGGGAATA ACGTACGGAAACGTACGCTAAT ACCGCATAATTATTACGAGATAA AGCAGGGGCTTGATAAAAAAAA TCAACCTTGCGCTTTTAGAAAAT TACATGCCGGATTAGCTAGTTG GTAGAGTAAAAGCCTACCAAGG TAACGATCCGTAGCTGGTCTGA GAGGATGATCAGCCACACTGGG ACTGAGAAAAGGCCCAGACTCC TACGGGAGGCAGCAGTGGGGA ATATTGGACAATGGGGGAACC CTGATCCAGTCATGCCGCGTGT GTGAAGAAGGCCTTTGGGTTGT AAAGCACTTTCAGCGAAGAAGA AAAGTTAGAAAATAAAAAGTTAT AACTATGACGGTACTCGCAGAA GAAGCACCGGCTAACTCCGTGC CAGCAGCCGCGGTAAGACGGA GGGTGCAAGCGTTAATCAGAAT TACTGGGCGTAAAGGGCATGTA GGTGGTTTGTTAAGCTTTATGTG AAAGCCCTATGCTTAACATAGG AACGGAATAAAGAACTGACAAA CTAGAGTGCAGAAGAGGAAGGT AGAATTCCCGGTGTAGCGGTGA AATGCGTAGATATCTGGAGGAA TACCAGTTGCGAAGGCGACCTT CTGGGCTGACACTGACACTGAG ATGCGAAAGCGTGGGGAGCAA ACAGGATTAGATACCCTGGTAG TCCACGCTGTAAACGATATCAA CTAGCCGTTGGATTCTTAAAGA ATTTTGTGGCGTAGCTAACGCG
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			ATAAGTTGATCGCCTGGGGAGT ACGGTCGCAAGGCTAAACTCA AATGAATTGACGGGGGCCCCGCA CAAGCGGTGGAGCATGTGGTTT AATTCGATGCAACGCGCAAAAC CTTACCTACTCTTGACATCCAAA GTACTTTCCAGAGATGGAAGGG TGCCTTAGGGAACTTTGAGACA GGTGCTGCATGGCTGTCGTCAG CTCGTGTTGTGAAATGTTGGGT TAAGTCCCGTAACGAGCGCAAC CCTTGTCTTAGTTGCCAACGC ATAAGGCGGGAACTTTAAGGAG ACTGCTGGTGATAAACCGGAGG AAGGTGGGGACGACGTCAAGT CATCATGGCCCTTAAGAGTAGG GCAACACACGTGCTACAATGGC AAAAACAAGGGTCGCAAAATG GTAACATGAAGCTAATCCCAA AAAATTGTCTTAGTTCCGATTGG AGTCTGAACTCGACTCCATAA AGTCGGAATCGCTAGTAATCGT GAATCAGAATGTCACGGTGAAT ACGTTCTCGGGCCTTGACACA CCGCCCGTCACACCATGGAAGT GAAATGCACCAGAAGTGGCAAG TTTAACCAAAAAACAGGAGAAC AGTCACTACGGTGTGGTTCATG ACTGGGGTGAAGTCGTAACAAG GTAGCTGTAGGGGAACCTGTGG CTGGATCACCTCCTTAA (SEQ ID NO: 10)
<i>Buchnera aphidicola str. APS (Acyrtosiphon pisum)</i>	Aphids (Aphidoidea)	bacteriocytes	AGAGTTTGATCATGGCTCAGAT TGAACGCTGGCGGCAAGCCTAA CACATGCAAGTCGAGCGGCAG CGAGAAGAGAGCTTGCTCTCTT TGTCGGCAAGCGGCAAACGGG TGAGTAATATCTGGGGATCTAC

		CCAAAAGAGGGGGATAACTACT AGAAATGGTAGCTAATACCGCA TAATGTTGAAAAACCAAAGTGG GGGACCTTTTGGCCTCATGCTT TTGGATGAACCCAGACGAGATT AGCTTGTTGGTAGAGTAATAGC CTACCAAGGCAACGATCTCTAG CTGGTCTGAGAGGATAACCAGC CACACTGGAAGTGAAGACACGGT CCAGACTCCTACGGGAGGCAG CAGTGGGGAATATTGCACAATG GGCGAAAGCCTGATGCAGCTAT GCCGCGTGTATGAAGAAGGCCT TAGGGTTGTAAAGTACTTTCAG CGGGGAGGAAAAAATAAACT AATAATTTTATTTTCGTGACGTTA CCCGCAGAAGAAGCACCGGCT AACTCCGTGCCAGCAGCCGCG GTAATACGGAGGGTGCAAGCGT TAATCAGAATTACTGGGCGTAA AGAGCGCGTAGGTGGTTTTTTA AGTCAGGTGTGAAATCCCTAGG CTCAACCTAGGAACTGCATTTG AACTGGAAAACTAGAGTTTCG TAGAGGGAGGTAGAATTCTAGG TGTAGCGGTGAAATGCGTAGAT ATCTGGAGGAATACCCGTGGCG AAAGCGGCCTCCTAAACGAAAA CTGACACTGAGGCGCGAAAGC GTGGGGAGCAAACAGGATTAGA TACCCTGGTAGTCCATGCCGTA AACGATGTCGACTTGGAGGTTG TTTCCAAGAGAAGTGACTTCCG AAGCTAACGCATTAAGTCGACC GCCTGGGGAGTACGGCCGCAA GGCTAAAACTCAAATGAATTGA CGGGGGCCCCGCACAAGCGGTG GAGCATGTGGTTTAATTTCGATG CAACGCGAAAAACCTTACCTGG
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			TCTTGACATCCACAGAATTCTTT AGAAATAAAGAAGTGCCTTCGG GAGCTGTGAGACAGGTGCTGCA TGGCTGTCGTCAGCTCGTGTTG TGAAATGTTGGGTAAAGTCCCG CAACGAGCGCAACCCTTATCCC CTGTTGCCAGCGGTTCCGGCCG GGAAGTCAGAGGAGACTGCCG GTTATAAACCGGAGGAAGGTGG GGACGACGTCAAGTCATCATGG CCCTTACGACCAGGGCTACACA CGTGCTACAATGGTTTATACAAA GAGAAGCAAATCTGCAAAGACA AGCAAACCTCATAAAGTAAATC GTAGTCCGGACTGGAGTCTGCA ACTCGACTCCACGAAGTCGGAA TCGCTAGTAATCGTGGATCAGA ATGCCACGGTGAATACGTTCCC GGGCCTTGTACACACCGCCCGT CACACCATGGGAGTGGGTTGCA AAAGAAGCAGGTATCCTAACCC TTTAAAAGGAAGGCGCTTACCA CTTTGTGATTCATGACTGGGGT GAAGTCGTAACAAGGTAACCGT AGGGGAACCTGCGGTTGGATCA CCTCCTT (SEQ ID NO: 11)
<i>Buchnera aphidicola str. Sg (Schizaphis graminum)</i>	Aphids (Aphidoidea)	bacteriocytes	AAACTGAAGAGTTTGATCATGG CTCAGATTGAACGCTGGCGGCA AGCCTAACACATGCAAGTCGAG CGGCAGCGAAAAGAAAGCTTGC TTTCTTGTGGCGAGCGGCAAA CGGGTGAGTAATATCTGGGGAT CTGCCCCAAAAGAGGGGGATAAC TACTAGAAATGGTAGCTAATACC GCATAAAGTTGAAAAACCAAAG TGGGGGACCTTTTTTAAAGGCC TCATGCTTTTGGATGAACCCAG ACGAGATTAGCTTGTTGGTAAG

		GTAAAAGCTTACCAAGGCAACG ATCTCTAGCTGGTCTGAGAGGA TAACCAGCCACACTGGAAGTGA GACACGGTCCAGACTCCTACGG GAGGCAGCAGTGGGGAATATTG CACAATGGGCGAAAGCCTGATG CAGCTATGCCGCGTGTATGAAG AAGGCCTTAGGGTTGTAAAGTA CTTTCAGCGGGGAGGAAAAAAT TAAACTAATAATTTTATTTTGTG ACGTTACCCGCAGAAGAAGCAC CGGCTAACTCCGTGCCAGCAGC CGCGGTAATACGGAGGGTGCG AGCGTTAATCAGAATTACTGGG CGTAAAGAGCACGTAGGTGGTT TTTAAAGTCAGATGTGAAATCCC TAGGCTTAACCTAGGAAGTCA TTTGAAACTGAAATGCTAGAGTA TCGTAGAGGGAGGTAGAATTCT AGGTGTAGCGGTGAAATGCGTA GATATCTGGAGGAATACCCGTG GCGAAAGCGGCCTCCTAAACGA ATACTGACACTGAGGTGCGAAA GCGTGGGGAGCAAACAGGATTA GATACCCTGGTAGTCCATGCCG TAAACGATGTGCACTTGGAGGT TGTTTCCAAGAGAAGTGACTTC CGAAGCTAACGCGTTAAGTCGA CCGCCTGGGGAGTACGGCCGC AAGGCTAAAACCTCAAATGAATTG ACGGGGGGCCCGCACAAAGCGGT GGAGCATGTGGTTTAATTCGAT GCAACGCGAAAAACCTTACCTG GTCTTGACATCCACAGAATTTTT TAGAAATAAAAAAGTGCCTTCG GGAAGTGTGAGACAGGTGCTGC ATGGCTGTGCTCAGCTCGTGTT GTGAAATGTTGGGTAAAGTCCC GCAACGAGCGCAACCCTTATCC
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			CCTGTTGCCAGCGGTTTCGGCC GGGAACTCAGAGGAGACTGCC GGTTATAAACCGGAGGAAGGTG GGGACGACGTCAAGTCATCATG GCCCTTACGACCAGGGCTACAC ACGTGCTACAATGGTTTATACAA AGAGAAGCAAATCTGTAAAGAC AAGCAAACCTCATAAAGTAAATC GTAGTCCGGACTGGAGTCTGCA ACTCGACTCCACGAAGTCGGAA TCGCTAGTAATCGTGGATCAGA ATGCCACGGTGAATACGTTCCC GGGCCTTGTACACACCGCCCGT CACACCATGGGAGTGGGTTGCA AAAGAAGCAGATTTCTAACCA CGAAAGTGGAAGGCGTCTACCA CTTTGTGATTCATGACTGGGGT GAAGTCGTAACAAGGTAACCGT AGGGGAACCTGCGGTTGGATCA CCTCCTTA (SEQ ID NO: 12)
<i>Buchnera aphidicola str. Bp (Baizongia pistaciae)</i>	Aphids (Aphidoidea)	bacteriocytes	ACTTAAAATTGAAGAGTTTGATC ATGGCTCAGATTGAACGCTGGC GGCAAGCTTAACACATGCAAGT CGAGCGGCATCGAAGAAAAGTT TACTTTTCTGGCGGCGAGCGGC AAACGGGTGAGTAACATCTGGG GATCTACCTAAAAGAGGGGGAC AACCATTGGAAACGATGGCTAA TACCGCATAATGTTTTTAAATAA ACCAAAGTAGGGGACTAAAATT TTTAGCCTTATGCTTTTAGATGA ACCCAGACGAGATTAGCTTGAT GGTAAGGTAATGGCTTACCAAG GCGACGATCTCTAGCTGGTCTG AGAGGATAACCAGCCCACTGG AACTGAGATACGGTCCAGACTC CTACGGGAGGCAGCAGTGGGG

		AATATTGCACAATGGGCTAAAG CCTGATGCAGCTATGCCGCGTG TATGAAGAAGGCCTTAGGGTTG TAAAGTACTTTCAGCGGGGAGG AAAGAATTATGTCTAATATACAT ATTTTGTGACGTTACCCGAAGA AGAAGCACCGGCTAACTCCGTG CCAGCAGCCGCGGTAATACGG AGGGTGCGAGCGTTAATCAGAA TACTGGGCGTAAAGAGCACGT AGGCGGTTTATTAAGTCAGATG TGAAATCCCTAGGCTTAACTTAG GAACTGCATTTGAACTAATAGA CTAGAGTCTCATAGAGGGAGGT AGAATTCTAGGTGTAGCGGTGA AATGCGTAGATATCTAGAGGAA TACCCGTGGCGAAAGCGACCTC CTAAATGAAAAGTACGCTGAG GTGCGAAAGCGTGGGGAGCAA ACAGGATTAGATACCCTGGTAG TCCATGCTGTAAACGATGTCGA CTTGGAGGTTGTTTCCTAGAGA AGTGGCTTCCGAAGCTAACGCA TTAAGTCGACCGCCTGGGGAGT ACGGTCGCAAGGCTAAAAGTCA AATGAATTGACGGGGGCCCCGCA CAAGCGGTGGAGCATGTGGTTT AATTCGATGCAACGCGAAGAAC CTTACCTGGTCTTGACATCCATA GAATTTTTTAGAGATAAAAGAGT GCCTTAGGGAAGTATGAGACAG GTGCTGCATGGCTGTCGTCAGC TCGTGTTGTGAAATGTTGGGTT AAGTCCCGCAACGAGCGCAACC CCTATCCTTTGTTGCCATCAGGT TATGCTGGGAAGTCAAGGAGA CTGCCGGTTATAAACCGGAGGA AGGTGGGGATGACGTCAAGTCA TCATGGCCCTTACGACCAGGGC
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			TACACACGTGCTACAATGGCAT ATACAAAGAGATGCAACTCTGC GAAGATAAGCAAACCTCATAAA GTATGTCGTAGTCCGGACTGGA GTCTGCAACTCGACTCCACGAA GTAGGAATCGCTAGTAATCGTG GATCAGAATGCCACGGTGAATA CGTTCCCGGGCCTTGTACACAC CGCCCGTCACACCATGGGAGT GGGTTGCAAAGAAGCAGGTAG CTTAACCAGATTATTTTATTGGA GGGCGCTTACCACTTTGTGATT CATGACTGGGGTGAAGTCGTAA CAAGGTAACCGTAGGGGAACCT GCGGTTGGATCACCTCCTTA (SEQ ID NO: 37)
<i>Buchnera aphidicola</i> BCc	Aphids (Aphidoidea)	bacteriocytes	ATGAGATCATTAATATATAAAAA TCATGTTCCAATTAATAAATTAG GACAAAATTTTTTACAGAATAAA GAAATTATTAATCAGATAATTAA TTTAATAAATATTAATAAAAATGA TAATATTATTGAAATAGGATCAG GATTAGGAGCGTTAACTTTTCCT ATTTGTAGAATCATTAAAAAAT GATAGTATTAGAAATTGATGAAG ATCTTGTGTTTTTTTAACTCAAA GTTTATTTATTAATAAATTACAAA TTATAATTGCTGATATTATAAAAT TTGATTTTTGTTGTTTTTTTCTT TACAGAAATATAAAAAATATAGG TTTATTGGTAATTTACCATATAAT ATTGCTACTATATTTTTTTTAAAA ACAATTAAATTTCTTTATAATATA ATTGATATGCATTTTATGTTTCA AAAAGAAGTAGCAAAGAGATTA TTAGCTACTCCTGGTACTAAAGA ATATGGTAGATTAAGTATTATTG CACAATATTTTTTATAAGATAGAA

			ACTGTTATTAATGTTAATAAATTT AATTTTTTTCCTACTCCTAAAGT AGATTCTACTTTTTTACGATTTA CTCCTAAATATTTTAATAGTAAA TATAAAATAGATAAACATTTTTCT GTTTTAGAATTAATTACTAGATT TTCTTTTCAACATAGAAGAAAAT TTTTAAATAATAATTTAATATCTT TATTTTCTACAAAAGAATTAATTT CTTTAGATATTGATCCATATTCA AGAGCAGAAAATGTTTCTTTAAT TCAATATTGTAAATTAATGAAAT ATTATTTGAAAAGAAAAATTTTAT GTTTAGATTAA (SEQ ID NO: 13)
<i>Buchnera aphidicola</i> (<i>Cinara tujaefilina</i>)	Aphids (Aphidoidea)	bacteriocytes	TTATCTTATTTACATATACGTA ATATTGCGCTGCGTGCACGAGG ATTTTTTTGAATTTAGATATATT TGGTTTAATACGTTTAATAAAC GTATTTTTTTTTTATTTTTCTTA TTTGCAATTCAGTAATAGGAAGT TTTTTAGGTATATTTGGATAATT ACTGTAATTCCTAATAAAGTTTTT TACAATCCTATCTTCAATAGAAT GAAAACCTAATAATAGCAATTTTT GATCCGGAATGTAATATGTTAAT AATAATTTTTAATATTTTATGTAA TTCATTTATTTCTTGGTTAATATA TATTCGAAAAGCTTGAAATGTTT TCGTAGCTGGATGTTTAAATTTG TCATATTTTGGGATTGATTTTTTT ATGATTTGAACTAACTCTAACGT GCTTGTTATGGTTTTTTTTTTTAT TTGTAATATGATGGCTCGGGAT ATTTTTTTTTCGTATTTTCTTCG CCAAAATTTTTTATTACCTGTTT TATTGTTTTTTGGTTTGTTTTTT TAACCATTGACTAACTGATATTC CAGATTTAGGGTTCATACGCAT

			ATCTAAAGGTCCATCATTCTATAA ATGAAAATCCTCGGATACTAGA ATTAACTGTATTGAAGAAATAC CTAAATCTAATAATATTCCATCT ATTTTATCTCTATTTTTTTCTTTT TTTAATATTTTTTCAATATTAGAA AATTTACCTAAAAATATTTTAAAT CGCGAATCTTTTATTTTTTTTCC GATTTTTATAGATTGTGGGTCTT GATCAATACTATATACTTTCCA TTAACCCCTAATTCTTGAAGAAT TGCTTTTGAATGACCACCACCT CCAAATGTACAATCAACATATGT ACCGTCTTTTTTTATTTTAAAGTA TTGTATGATTTCTTTTGTTAAAA CAGGTTTATGAATCAT (SEQ ID NO: 14)
<i>Buchnera aphidicola str. G002 (Myzus persicae)</i>	Aphids (Aphidoidea)	bacteriocytes	ATGAAAAGTATAAAAACTTTTAA AAAACACTTTCCTGTGAAAAAAT ATGGACAAAATTTTCTTATTAAT AAAGAGATCATAAAAAATATTGT TAAAAAATTAATCCAAATATAG AACAAACATTAGTAGAAATCGG ACCAGGATTAGCTGCATTAAC GAGCCCATATCTCAGTTATTA AGAGTTAATAGTTATTGAAATAG ACTGTAATCTATTATTTTTTTAA AAAAACAACCATTTTATTCAAAA TTAATAGTTTTTTGTCAAGATGC TTTAACTTTAATTATACAAATTT ATTTTATAAAAAAATAAATTAAT TCGTATTTTTGGTAATTTACCAT ATAATATCTCTACATCTTTAATTA TTTTTTTATTTCAACACATTAGA GTAATTCAAGATATGAATTTTAT GCTTCAAAAAGAAGTTGCTGCA AGATTAATTGCATTACCTGGAAA TAAATATTACGGTCGTTTGAGCA

			TTATATCTCAATATTATTGTGATA TCAAATTTTATTAAATGTTGCT CCTGAAGATTTTGGCCTATTCC GAGAGTTCATTCTATATTTGTAA ATTTAACACCTCATCATAATTCT CCTTATTTTGTATGATATTAAT ATTTTAAGCCTTATTACAAATAA GGCTTTCCAAAATAGAAGAAAA ATATTACGTCATAGTTTAAAAAA TTTATTTTCTGAAACAACTTTATT AAATTTAGATATTAATCCCAGAT TAAGAGCTGAAAATATTTCTGTT TTTCAGTATTGTCAATTAGCTAA TTATTTGTATAAAAAAAATTATAC TAAAAAAATTAA (SEQ ID NO: 15)
<i>Buchnera aphidicola str.</i> <i>Ak (Acyrtosiphon</i> <i>kondoi)</i>	Aphids (Aphidoidea)	bacteriocytes	ATTATAAAAAATTTTAAAAAACAT TTTCCTTTAAAAAGGTATGGACA AAATTTTCTTGTCAATACAAAAA CTATTCAAAGATAATTAATATA ATTAATCCAAACACCAAACAAAC ATTAGTGGAAATTGGACCTGGA TTAGCTGCATTAACAAAACCAAT TTGTCAATTATTAGAAGAATTAA TTGTTATTGAAATAGATCCTAAT TTATTGTTTTTATTAAAAAACGT TCATTTTATTCAAATTAACAGTT TTTTATCAAGACGCTTTAAATTT CAATTATACAGATTTGTTTTATA AGAAAAATCAATTAATTCGTGTT TTTGAAACTTGCCATATAATAT TTCTACATCTTTAATTATTTCTTT ATTCAATCATATTAAAGTTATTC AAGATATGAATTTTATGTTACAG AAAGAGGTTGCTGAAAGATTAA TTTCTATTCTGGAAATAAATCT TATGGCCGTTTAAGCATTATTTCT TCAGTATTATTGTAAAATTAAAA

			TATTATTAAATGTTGTACCTGAA GATTTTCGACCTATACCGAAAGT GCATTCTGTTTTTATCAATTTAA CTCCTCATACCAATTCTCCATAT TTTGTTTATGATACAAATATCCT CAGTTCTATCACAAGAAATGCTT TTCAAATAGAAGGAAAATTTTG CGTCATAGTTTAAAAAATTTATT TTCTGAAAAAGAACTAATTCAAT TAGAAATTAATCCAAATTTACGA GCTGAAAATATTTCTATCTTTCA GTATTGTCAATTAGCTGATTATT TATATAAAAAATTAATAATCTTG TAAAAATCAATTAA (SEQ ID NO: 16)
<i>Buchnera aphidicola str.</i> <i>Ua (Uroleucon</i> <i>ambrosiae)</i>	Aphids (Aphidoidea)	bacteriocytes	ATGATACTAAATAAATATAAAAA ATTTATTCCTTTAAAAAGATACG GACAAAATTTCTTGTAATAGA GAAATAATCAAAAATATTATCAA AATAATTAATCCTAAAAAACGC AAACATTATTAGAAATTGGACCG GGTTTAGGTGCGTTAACAAAAC CTATTTGTGAATTTTTAAATGAA CTTATCGTCATTGAAATAGATCC TAATATATTATCTTTTTTAAAGAA ATGTATATTTTTTGATAAATTA AATATATTGTCATAATGCTTTAG ATTTTAATTATAAAAAATATATTCT ATAAAAAAAGTCAATTAATTCGT ATTTTTGGAAATTTACCATATAA TATTTCTACATCTTAATAATATA TTTATTTCGGAATATTGATATTAT TCAAGATATGAATTTTATGTTAC ACAAGAAGTGGCTAAAAGATT AGTTGCTATTCCTGGTGAAAAA CTTTATGGTCGTTTAAGTATTAT ATCTCAATATTATTGTAATATTAA AATATTATTACATATTCGACCTG

			AAAATTTTCAACCTATTCTCTAAA GTTAATTCAATGTTTGTAATTT AACTCCGCATATTCATTCTCCTT ATTTTGTTTATGATATTAATTTAT TAACTAGTATTACAAAACATGCT TTTCAACATAGAAGAAAAATATT GCGTCATAGTTTAAGAAATTTTT TTTCTGAGCAAGATTTAATTCAT TTAGAAATTAATCCAAATTTAAG AGCTGAAAATGTTTCTATTATTC AATATTGTCAATTGGCTAATAAT TTATATAAAAAACATAAACAGTT TATTAATAATTAA (SEQ ID NO: 17)
<i>Buchnera aphidicola</i> (<i>Aphis glycines</i>)	Aphids (Aphidoidea)	bacteriocytes	ATGAAAAAGCATATTCCTATAAA AAAATTTAGTCAAAATTTTCTTG TAGATTTGAGTGTGATTAAAAAA ATAATTAAATTTATTAATCCGCA GTTAAATGAAATATTGGTTGAAA TTGGACCGGGATTAGCTGCTAT CACTCGACCTATTTGTGATTTGA TAGATCATTTAATTGTGATTGAA ATTGATAAAATTTTATTAGATAG ATTAAACAGTTCTCATTTTATT CAAAATTAACAGTATATCATCAA GATGCTTTAGCATTTGATTACAT AAAGTTATTTAATAAAAAAATA AATTAGTTTGAATTTTGGTAAT TTACCATATCATGTTTCTACGTC TTTAATATTGCATTTATTTAAAG AATTAATATTATTAAGATATGA ATTTTATGCTACAAAAGAAGTT GCTGAACGTTTAATTGCAACTC CAGGTAGTAAATTATATGGTCGT TTAAGTATTATTTCTCAATATTAT TGTAATATAAAAGTTTTATTGCA TGTGTCTTCAAATGTTTTAAAC

			CAGTTCCTAAAGTAGAATCAATT TTTCTTAATTTGACACCTTATAC TGATTATTTCCCTTATTTTACTTA TAATGTAAACGTTCTTAGTTATA TTACAAATTTAGCTTTTCAAAAA AGAAGAAAAATATTACGTCATAG TTTAGGTAAAAATATTTTCTGAAA AAGTTTTTATAAAATTAAATATTA ATCCCAAATTAAGACCTGAGAAT ATTTCTATATTACAATATTGTCA GTTATCTAATTATATGATAGAAA ATAATATTCATCAGGAACATGTT TGTATTTAA (SEQ ID NO: 18)
<i>Candidatus Annandia pinicola</i>	(Phylloxeroidea)	bacteriocytes	AGATTGAACGCTGGCGGCATGC CTTACACATGCAAGTCGAACGG TAACAGGTCTTCGGACGCTGAC GAGTGGCGAACGGGTGAGTAAT ACATCGGAACGTGCCCAGTCGT GGGGGATAACTACTCGAAAGAG TAGCTAATACCGCATACGATCT GAGGATGAAAGCGGGGGACCT TCGGGCCTCGCGCGATTGGAG CGGCCGATGGCAGATTAGGTAG TTGGTGGGATAAAAGCTTACCA AGCCGACGATCTGTAGCTGGTC TGAGAGGACGACCAGCCACACT GGAAGTGAAGATACGGTCCAGAC TCTTACGGGAGGCAGCAGTGG GGAATATTGCACAATGGGCGCA AGCCTGATGCAGCTATGTCGCG TGTATGAAGAAGACCTTAGGGT TGTAAGTACTTTTCGATAGCATA AGAAGATAATGAGACTAATAATT TTATTGTCTGACGTTAGCTATAG AAGAAGCACCGGCTAACTCCGT GCCAGCAGCCGCGGTAATACG GGGGGTGCTAGCGTTAATCGGA

		ATTACTGGGCGTAAAGAGCATG TAGGTGGTTTATTAAGTCAGATG TGAAATCCCTGGACTTAATCTAG GAACTGCATTTGAACTAATAG GCTAGAGTTTCGTAGAGGGAGG TAGAATTCTAGGTGTAGCGGTG AAATGCATAGATATCTAGAGGA ATATCAGTGGCGAAGGCGACCT TCTGGACGATAACTGACGCTAA AATGCGAAAGCATGGGTAGCAA ACAGGATTAGATACCCTGGTAG TCCATGCTGTAAACGATGTCGA CTAAGAGGTTGGAGGTATAACT TTAATCTCTGTAGCTAACGCGT TAAGTCGACCGCCTGGGGAGTA CGGTGCGCAAGGCTAAAAC TCA ATGAATTGACGGGGGCCTGCAC AAGCGGTGGAGCATGTGGTTTA ATTCGATGCAACGCGTAAAACC TTACCTGGTCTTGACATCCACA GAATTTTACAGAAATGTAGAAGT GCAATTTGAACTGTGAGACAGG TGCTGCATGGCTGTCGTCAGCT CGTGTTGTGAAATGTTGGGTTA AGTCCCGCAACGAGCGCAACC CTTGTCCTTTGTTACCATAAGAT TTAAGGAACTCAAAGGAGACTG CCGGTGATAAACTGGAGGAAGG CGGGGACGACGTCAAGTCATCA TGGCCCTTATGACCAGGGCTAC ACACGTGCTACAATGGCATATA CAAAGAGATGCAATATTGCGAA ATAAAGCCAATCTTATAAAATAT GTCCTAGTTCGGACTGGAGTCT GCAACTCGACTCCACGAAGTCG GAATCGCTAGTAATCGTGGATC AGCATGCCACGGTGAATATGTT TCCAGGCCTTGTACACACCGCC CGTCACACCATGGAAGTGGATT
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			GCAAAAGAAGTAAGAAAATTAA CCTTCTTAACAAGGAAATAACTT ACCACTTTGTGACTCATAACTG GGGTGA (SEQ ID NO: 19)
<i>Moranella endobia</i>	(Coccoidea)	bacteriocytes	TCTTTTTGGTAAGGAGGTGATC CAACCGCAGGTTCCCCTACGGT TACCTTGTTACGACTTCACCCCA GTCATGAATCACAAAGTGGTAA GCGCCCTCCTAAAAGGTTAGGC TACCTACTTCTTTTGCAACCCAC TTCCATGGTGTGACGGGCGGTG TGTACAAGGCCCGGGAACGTAT TCACCGTGGCATTCTGATCCAC GATTACTAGCGATTCTACTTCA TGGAGTCGAGTTGCAGACTCCA ATCCGGACTACGACGCACTTTA TGAGGTCCGCTAACTCTCGCGA GCTTGCTTCTCTTTGTATGCGC CATTGTAGCACGTGTGTAGCCC TACTCGTAAGGGCCATGATGAC TTGACGTCATCCCCACCTTCCT CCGGTTTATCACCGGCAGTCTC CTTTGAGTTCCCGACCGAATCG CTGGCAAAAAGGATAAGGGTT GCGCTCGTTGCGGGACTTAACC CAACATTTACAACACGAGCTG ACGACAGCCATGCAGCACCTGT CTCAGAGTTCCCGAAGGTACCA AAACATCTCTGCTAAGTTCTCTG GATGTCAAGAGTAGGTAAGGTT CTTCGCGTTGCATCGAATTA CCACATGCTCCACCGCTTGTGC GGGCCCCCGTCAATTCATTTGA GTTTTAACCTTGCGGCCGTACT CCCCAGGCGGTGATTTAACGC GTAACTACGAAAGCCACAGTT CAAGACCACAGCTTTCAAATCG

			ACATAGTTTACGGCGTGGACTA CCAGGGTATCTAATCCTGTTTG CTCCCCACGCTTTCGTACCTGA GCGTCAGTATTCGTCCAGGGGG CCGCCTTCGCCACTGGTATTCC TCCAGATATCTACACATTTACC GCTACACCTGGAATTCTACCCC CCTCTACGAGACTCTAGCCTAT CAGTTTCAAATGCAGTTCCTAG GTTAAGCCCAGGGATTTACAT CTGACTTAATAAACCGCCTACG TACTCTTTACGCCCAGTAATTCC GATTAACGCTTGCACCCTCCGT ATTACCGCGGCTGCTGGCACG GAGTTAGCCGGTGCTTCTTCTG TAGGTAACGTCAATCAATAACC GTATTAAGGATATTGCCTTCCTC CCTACTGAAAGTGCTTTACAAC CCGAAGGCCTTCTTCACACACG CGGCATGGCTGCATCAGGGTTT CCCCATTGTGCAATATTCCCC ACTGCTGCCTCCCGTAGGAGTC TGGACCGTGTCTCAGTTCCAGT GTGGCTGGTCATCCTCTCAGAC CAGCTAGGGATCGTCGCCTAGG TAAGCTATTACCTCACCTACTAG CTAATCCCATCTGGGTTTCATCT GAAGGTGTGAGGCCAAAAGGTC CCCCACTTTGGTCTTACGACATT ATGCGGTATTAGCTACCGTTTC CAGCAGTTATCCCCCTCCATCA GGCAGATCCCCAGACTTTACTC ACCGTTTCGCTGCTCGCCGGCA AAAAAGTAACTTTTTTCCGTTG CCGCTCAACTTGCATGTGTTAG GCCTGCCGCCAGCGTTCAATCT GAGCCATGATCAAACCTTTCAAT TAAA (SEQ ID NO: 20)
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<i>Ishikawaella capsulata</i> <i>Mpkobe</i>	(Heteroptera)	bacteriocytes	AAATTGAAGAGTTTGATCATGG CTCAGATTGAACGCTAGCGGCA AGCTTAACACATGCAAGTCGAA CGGTAACAGAAAAAAGCTTGCT TTTTTGCTGACGAGTGGCGGAC GGGTGAGTAATGTCTGGGGATC TACCTAATGGCGGGGGATAACT ACTGGAAACGGTAGCTAATACC GCATAATGTTGTAAAACCAAAGT GGGGGACCTTATGGCCTCACAC CATTAGATGAACCTAGATGGGA TTAGCTTGTAGGTGGGGTAAAG GCTCACCTAGGCAACGATCCCT AGCTGGTCTGAGAGGATGACCA GCCACACTGGAACTGAGATACG GTCCAGACTCCTACGGGAGGCA GCAGTGGGGAATCTTGACAAT GGGCGCAAGCCTGATGCAGCT ATGTCGCGTGTATGAAGAAGGC CTTAGGGTTGTAAAGTACTTTCA TCGGGGAAGAAGGATATGAGCC TAATATTCTCATATATTGACGTT ACCTGCAGAAGAAGCACCGGCT AACTCCGTGCCAGCAGCCGCG GTAACACGGAGGGTGCGAGCG TTAATCGGAATTACTGGGCGTA AAGAGCACGTAGGTGGTTTATT AAGTCATATGTGAAATCCCTGG GCTTAACCTAGGAACTGCATGT GAAACTGATAAACTAGAGTTTC GTAGAGGGAGGTGGAATTCCAG GTGTAGCGGTGAAATGCGTAGA TATCTGGAGGAATATCAGAGGC GAAGGCGACCTTCTGGACGAAA ACTGACACTCAGGTGCGAAAGC GTGGGGAGCAAACAGGATTAGA TACCCTGGTAGTCCACGCTGTA AACAAATGTCGACTAAAAAAGTGT GAGCTTGACTTGTGGTTTTTGTA
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			GCTAACGCATTAAGTCGACCGC CTGGGGAGTACGGCCGCAAGG TTAAACTCAAATGAATTGACGG GGGTCCGCACAAGCGGTGGAG CATGTGGTTTAATTCGATGCAAC GCGAAAAACCTTACCTGGTCTT GACATCCAGCGAATTATATAGA AATATATAAGTGCCTTTCGGGG AACTCTGAGACGCTGCATGGCT GTCGTCAGCTCGTGTTGTGAAA TGTTGGGTAAAGTCCCGCAACG AGCGCCCTTATCCTCTGTTGCC AGCGGCATGGCCGGGAACCTCA GAGGAGACTGCCAGTATTAAAC TGGAGGAAGGTGGGGATGACG TCAAGTCATCATGGCCCTTATG ACCAGGGCTACACACGTGCTAC AATGGTGTATACAAAGAGAAGC AATCTCGCAAGAGTAAGCAAAA CTCAAAAAGTACATCGTAGTTC GGATTAGAGTCTGCAACTCGAC TCTATGAAGTAGGAATCGCTAG TAATCGTGGATCAGAATGCCAC GGTGAATACGTTCTCTGGCCTT GTACACACCGCCCGTCACACCA TGGGAGTAAGTTGCAAAGAAG TAGGTAGCTTAACCTTTATAGGA GGGCGCTTACCACTTTGTGATT TATGACTGGGGTGAAGTCGTAA CAAGGTAAGTGTAGGGGAACCT GTGGTTGGATTACCTCCTTA (SEQ ID NO: 38)
<i>Baumannia cicadellincola</i>	sharpshooter leafhoppers (Cicadellinae)	bacteriocytes	TTCAATTGAAGAGTTTGATCATG GCTCAGATTGAACGCTGGCGGT AAGCTTAACACATGCAAGTCGA GCGGCATCGGAAAGTAAATTAA TTACTTTGCCGGCAAGCGGCGA ACGGGTGAGTAATATCTGGGGA

		TCTACCTTATGGAGAGGGATAA CTATTGGAAACGATAGCTAACA CCGCATAATGTCGTCAGACCAA AATGGGGGACCTAATTTAGGCC TCATGCCATAAGATGAACCCAG ATGAGATTAGCTAGTAGGTGAG ATAATAGCTCACCTAGGCAACG ATCTCTAGTTGGTCTGAGAGGA TGACCAGCCACACTGGAACCTGA GACACGGTCCAGACTCCTACGG GAGGCAGCAGTGGGGAATCTT GCACAATGGGGGAAACCCTGAT GCAGCTATACCGCGTGTGTGAA GAAGGCCTTCGGGTTGTAAAGC ACTTTCAGCGGGGAAGAAAATG AAGTTACTAATAATAATTGTCAA TTGACGTTACCCGCAAAGAAG CACCGGCTAACTCCGTGCCAGC AGCCGCGGTAAGACGGAGGGT GCAAGCGTTAATCGGAATTACT GGGCGTAAAGCGTATGTAGGC GGTTTATTTAGTCAGGTGTGAAA GCCCTAGGCTTAACCTAGGAAT TGCATTTGAAACTGGTAAGCTA GAGTCTCGTAGAGGGGGGGAG AATTCCAGGTGTAGCGGTGAAA TGCGTAGAGATCTGGAAGAATA CCAGTGGCGAAGGCGCCCCC TGGACGAAAACCTGACGCTCAAG TACGAAAGCGTGGGGAGCAAAC AGGATTAGATACCCTGGTAGTC CACGCTGTAAACGATGTGATT TGAAGGTTGTAGCCTTGAGCTA TAGCTTTCGAAGCTAACGCATTA AATCGACCGCCTGGGGAGTAC GACCGCAAGGTTAAACTCAAA TGAATTGACGGGGGCCCGCAC AAGCGGTGGAGCATGTGGTTTA ATTCGATACAACGCGAAAAACC
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			TTACCTACTCTTGACATCCAGAG TATAAAGCAGAAAAGCTTTAGTG CCTTCGGGAAGCTCTGAGACAGG TGCTGCATGGCTGTCGTCAGCT CGTGTTGTGAAATGTTGGGTTA AGTCCCGCAACGAGCGCAACC CTTATCCTTTGTTGCCAACGATT AAGTCGGGAAGCTCAAAGGAGAC TGCCGGTGATAAACCGGAGGAA GGTGAGGATAACGTCAAGTCAT CATGGCCCTTACGAGTAGGGCT ACACACGTGCTACAATGGTGCA TACAAAGAGAAGCAATCTCGTA AGAGTTAGCAAACCTCATAAAG TGCATCGTAGTCCGGATTAGAG TCTGCAACTCGACTCTATGAAG TCGGAATCGCTAGTAATCGTGG ATCAGAATGCCACGGTGAATAC GTTCCCGGGCCTTGACACACC GCCCGTCACACCATGGGAGTGT ATTGCAAAAGAAGTTAGTAGCTT AACTCATAATACGAGAGGGCGC TTACCACTTTGTGATTCATAACT GGGGTGAAGTCGTAACAAGGTA ACCGTAGGGGAACCTGCGGTT GGATCACCTCCTTACACTAAA (SEQ ID NO: 21)
<i>Sodalis</i> -like bacterium	Rhopalus sapporensis	wider tissue tropism	ATTGAACGCTGGCGGCAGGCCT AACACATGCAAGTCGAGCGGCA GCGGGAAGAAGCTTGCTTCTTT GCCGGCGAGCGGCGGACGGGT GAGTAATGTCTGGGGATCTGCC CGATGGAGGGGGATAACTACTG GAAACGGTAGCTAATACCGCAT AACGTCGCAAGACCAAAGTGGG GGACCTTCGGGCCTCACACCAT CGGATGAACCCAGGTGGGATTA GCTAGTAGGTGGGGTAATGGCT

		CACCTAGGCGACGATCCCTAGC TGGTCTGAGAGGATGACCAGTC ACACTGGAAGTGAAGACACGGTC CAGACTCCTACGGGAGGCAGC AGTGGGGAATATTGCACAATGG GGGAAACCCTGATGCAGCCATG CCGCGTGTGTGAAGAAGGCCTT CGGGTTGTAAAGCACTTTTCAGC GGGGAGGAAGGCGATGGCGTT AATAGCGCTATCGATTGACGTT ACCCGCAGAAGAAGCACCGGC TAACTCCGTGCCAGCAGCCGCG GTAATACGGAGGGTGCGAGCG TTAATCGGAATTACTGGGCGTA AAGCGTACGCAGGCGGTCTGTT AAGTCAGATGTGAAATCCCCGG GCTCAACCTGGGAAGTGCATTT GAAACTGGCAGGCTAGAGTCTC GTAGAGGGGGGTAGAATTCCAG GTGTAGCGGTGAAATGCGTAGA GATCTGGAGGAATACCGGTGGC GAAGGCGGCCCCCTGGACGAA GACTGACGCTCAGGTACGAAAG CGTGGGGAGCAAACAGGATTAG ATACCCTGGTAGTCCACGCTGT AAACGATGTCGATTTGAAGGTT GTGGCCTTGAGCCGTGGCTTTC GGAGCTAACGTGTAAATCGAC CGCCTGGGGAGTACGGCCGCA AGGTTAAACTCAAATGAATTGA CGGGGGCCCGCACAAGCGGTG GAGCATGTGGTTTAATTGATG CAACGCGAAGAACCCTTACCTAC TCTTGACATCCAGAGAACTTGG CAGAGATGCTTTGGTGCCTTCG GGAAGTCTGAGACAGGTGCTGC ATGGCTGTGCTCAGCTCGTGTT GTGAAATGTTGGGTTAAGTCCC GCAACGAGCGCAACCCTTATCC
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			TTTATTGCCAGCGATTCCGGTCG GGA ACTCAAAGGAGACTGCCG GTGATAAACCGGAGGAAGGTG GGGATGACGTCAAGTCATCATG GCCCTTACGAGTAGGGCTACAC ACGTGCTACAATGGCGCATACA AAGAGAAGCGATCTCGCGAGAG TCAGCGGACCTCATAAAGTGCG TCGTAGTCCGGATTGGAGTCTG CAACTCGACTCCATGAAGTCGG AATCGCTAGTAATCGTGGATCA GAATGCCACGGTGAATACGTTC CCGGGCCTTGTACACACCGCCC GTCACACCATGGGAGTGGGTTG CAAAAGAAGTAGGTAGCTTAAC CTTCGGGAGGGCGCTTACCACT TTGTGATTCATGACTGGGGTG (SEQ ID NO: 22)
<i>Candidatus Hartigia pinicola</i>	The pine bark adelgid	bacteriocytes	AGATTTAACGCTGGCGGCAGGC CTAACACATGCAAGTCGAGCGG TACCAGAAGAAGCTTGCTTCTT GCTGACGAGCGGCGGACGGGT GAGTAATGTATGGGGATCTGCC CGACAGAGGGGGATAACTATTG GAAACGGTAGCTAATACCGCAT AATCTCTGAGGAGCAAAGCAGG GGA ACTTCGGTCCTTGCGCTAT CGGATGAACCCATATGGGATTA GCTAGTAGGTGAGGTAATGGCT CCCCTAGGCAACGATCCCTAGC TGGTCTGAGAGGATGATCAGCC AACTGGGACTGAGACACGGC CCAGACTCCTACGGGAGGCAG CAGTGGGGAATATTGCACAATG GGCGAAAGCCTGATGCAGCCAT GCCGCGTGTATGAAGAAGGCTT TAGGGTTGTAAAGTACTTTCAGT CGAGAGGAAAACATTGATGCTA

		ATATCATCAATTATTGACGTTTC CGACAGAAGAAGCACCGGCTAA CTCCGTGCCAGCAGCCGCGGT AATACGGAGGGTGCAAGCGTTA ATCGGAATTACTGGGCGTAAAG CGCACGCAGGCGGTAAATTAAG TTAGATGTGAAAGCCCCGGGCT TAACCCAGGAATAGCATATAAAA CTGGTCAACTAGAGTATTGTAG AGGGGGGTAGAATTCCATGTGT AGCGGTGAAATGCGTAGAGATG TGGAGGAATACCAGTGGCGAAG GCGGCCCCCTGGACAAAACTG ACGCTCAAATGCGAAAGCGTGG GGAGCAAACAGGATTAGATACC CTGGTAGTCCATGCTGTAAACG ATGTCGATTTGGAGGTTGTTCC CTTGAGGAGTAGCTTCCGTAGC TAACGCGTTAAATCGACCGCCT GGGGGAGTACGACTGCAAGGT TAAAACTCAAATGAATTGACGG GGGCCCGCACAAAGCGGTGGAG CATGTGGTTTAATTGATGCAAC GCGAAAAACCTTACCTACTCTT GACATCCAGATAATTTAGCAGA AATGCTTTAGTACCTTCGGGAA ATCTGAGACAGGTGCTGCATGG CTGTCGTCAGCTCGTGTTGTGA AATGTTGGGTTAAGTCCCGCAA CGAGCGCAACCCTTATCCTTTG TTGCCAGCGATTAGGTGCGGAA CTCAAAGGAGACTGCCGGTGAT AAACCGGAGGAAGGTGGGGAT GACGTCAAGTCATCATGGCCCT TACGAGTAGGGCTACACACGTG CTACAATGGCATATACAAAGGG AAGCAACCTCGCGAGAGCAAGC GAAACTCATAAATTATGTCGTAG TTCAGATTGGAGTCTGCAACTC
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			GACTCCATGAAGTCGGAATCGC TAGTAATCGTAGATCAGAATGCT ACGGTGAATACGTTCCCGGGCC TTGTACACACCGCCCGTCACAC CATGGGAGTGGGTTGCAAAGA AGTAGGTAACCTTAACCTTATGGA AAGCGCTTACCACTTTGTGATTC ATAACTGGGGTG (SEQ ID NO: 23)
<i>Wigglesworthia glossinidia</i>	tsetse fly (Diptera: Glossinidae)	bacteriocytes	
Beta proteobacteria			
<i>Tremblaya phenacola</i>	Phenacoccus avenae (TPPAVE).	bacteriomes	AGGTAATCCAGCCACACCTTCC AGTACGGCTACCTTGTTACGAC TTCACCCCAGTCACAACCCCTTA CCTTCGGAAGTGCCTCCTCAC AACTCAAACCACCAAACACTTTT AAATCAGGTTGAGAGAGGTTAG GCCTGTTACTTCTGGCAAGAAT TATTTCCATGGTGTGACGGGCG GTGTGTACAAGACCCGAGAACA TATTCACCGTGGCATGCTGATC CACGATTACTAGCAATTCCAAC TCATGCACTCGAGTTTCAGAGT ACAATCCGAAGTGGCCGGCT TTGTGAGATTAGCTCCCTTTTGC AAGTTGGCAACTCTTTGGTCCG GCCATTGTATGATGTGTGAAGC CCCACCCATAAAGGCCATGAGG ACTTGACGTCATCCCCACCTTC CTCCAACCTTATCGCTGGCAGTC TCTTTAAGGTAAGTACTAATCC AGTAGCAATTAAAGACAGGGGT TGCGCTCGTTACAGGACTTAAC CCAACATCTCACGACACGAGCT

		GACGACAGCCATGCAGCACCTG TGCACTAATTCTCTTTCAAGCAC TCCCGCTTCTCAACAGGATCTT AGCCATATCAAAGGTAGGTAAG GTTTTTCGCGTTGCATCGAATTA ATCCACATCATCCACTGCTTGT GCGGGTCCCCGTCAATTCCTTT GAGTTTTAACCTTGCGGCCGTA CTCCCCAGGCGGTGACTTGTG CGTTAGCTGCACCACTGAAAAG GAAAACTGCCCAATGGTTAGTC AACATCGTTTAGGGCATGGACT ACCAGGGTATCTAATCCTGTTT GCTCCCCATGCTTTAGTGTCTG AGCGTCAGTAACGAACCAGGAG GCTGCCTACGCTTTCGGTATTC CTCCACATCTCTACACATTTAC TGCTACATGCGGAATTCTACCT CCCCCTCTCGTACTCCAGCCTG CCAGTAACTGCCGCATTCTGAG GTTAAGCCTCAGCCTTTCACAG CAATCTTAACAGGCAGCCTGCA CACCCCTTACGCCCAATAAATCT GATTAACGCTCGCACCCCTACGT ATTACCGCGGCTGCTGGCACGT AGTTTGCCGGTGCTTATTCTTTC GGTACAGTCACACCACCAAATT GTTAGTTGGGTGGCTTTCCTTC CGAACAAAAGTGCTTTACAACC CAAAGGCCTTCTTCACACACGC GGCATTGCTGGATCAGGCTTCC GCCCATTGTCCAAGATTCTCA CTGCTGCCTTCCTCAGAAGTCT GGGCCGTGTCTCAGTCCCAGTG TGGCTGGCCGTCCTCTCAGACC AGCTACCGATCATTGCCTTGGG AAGCCATTACCTTTCCAACAAG CTAATCAGACATCAGCCAATCT CAGAGCGCAAGGCAATTGGTCC
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			CCTGCTTTCATTCTGCTTGGTAG AGAACTTTATGCGGTATTAATTA GGCTTTCACCTAGCTGTCCCCC ACTCTGAGGCATGTTCTGATGC ATTACTCACCCGTTTGCCACTTG CCACCAAGCCTAAGCCCGTGTT GCCGTTGCGACTTGATGTGTAA GGCATGCCGCTAGCGTTCAATC TGAGCCAGGATCAAACCTCT (SEQ ID NO: 24)
<i>Candidatus Tremblaya princeps</i>	citrus mealybug Planococcus citri	bacteriomes	AGAGTTTGATCCTGGCTCAGAT TGAACGCTAGCGGCATGCATTA CACATGCAAGTCGTACGGCAGC ACGGGCTTAGGCCTGGTGGCG AGTGCGGAACGGGTGAGTAAC GCCTCGGAACGTGCCTTGTAGT GGGGGATAGCCTGGCGAAAGC CAGATTAATACCGCATGAAGCC GCACAGCATGCGCGGTGAAAGT GGGGGATTCTAGCCTCACGCTA CTGGATCGGCCGGGGTCTGATT AGCTAGTTGGCGGGGTAATGGC CCACCAAGGCTTAGATCAGTAG CTGGTCTGAGAGGACGATCAGC CACACTGGGACTGAGACACGG CCCAGACTCCTACGGGAGGCA GCAGTGGGGAATCTTGACAAT GGGCGCAAGCCTGATCCAGCA ATGCCGCGTGTGTGAAGAAGGC CTTCGGGTCGTAAAGCACTTTT GTTCCGGATGAAGGGGGGCGT GCAAACACCATGCCCTCTTGAC GATACCGAAAGAATAAGCACCG GCTAACTACGTGCCAGCAGCCG CGGTAATACGTAGGGTGCGAGC GTTAATCGGAATCACTGGGCGT AAAGGGTGCGCGGGTGGTTTG CCAAGACCCCTGTAAAATCCTA

		CGGCCCAACCGTAGTGCTGCG GAGGTTACTGGTAAGCTTGAGT ATGGCAGAGGGGGGTAGAATTC CAGGTGTAGCGGTGAAATGCGT AGATATCTGGAGGAATACCGAA GGCGAAGGCAACCCCTGGGC CATCACTGACACTGAGGCACGA AAGCGTGGGGAGCAAACAGGA TTAGATACCCTGGTAGTCCACG CCCTAAACCATGTCGACTAGTT GTCGGGGGGAGCCCTTTTTCCT CGGTGACGAAGCTAACGCATGA AGTCGACCGCCTGGGGAGTAC GACCGCAAGGTAAAACTCAAA GGAATTGACGGGGACCCGCAC AAGCGGTGGATGATGTGGATTA ATTCGATGCAACGCGAAAAACC TTACCTACCCTTGACATGGCGG AGATTCTGCCGAGAGGCGGAA GTGCTCGAAAGAGAATCCGTGC ACAGGTGCTGCATGGCTGTCGT CAGCTCGTGTCTGTGAGATGTTG GGTTAAGTCCCATAACGAGCGC AACCCCGTCTTTAGTTGCTAC CACTGGGGCACTCTATAGAGAC TGCCGGTGATAAACCGGAGGAA GGTGGGGACGACGTCAAGTCAT CATGGCCTTTATGGGTAGGGCT TCACACGTCATACAATGGCTGG AGCAAAGGGTCGCCAACTCGAG AGAGGGAGCTAATCCCACAAAC CCAGCCCCAGTTCGGATTGCAC TCTGCAACTCGAGTGCATGAAG TCGGAATCGCTAGTAATCGTGG ATCAGCATGCCACGGTGAATAC GTTCTCGGGTCTTGTACACACC GCCCGTCACACCATGGGAGTAA GCCGCATCAGAAGCAGCCTCCC TAACCCTATGCTGGGAAGGAGG
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			CTGCGAAGGTGGGGTCTATGAC TGGGGTGAAGTCGTAACAAGGT AGCCGTACCGGAAGGTGCGGC TGGATTACCT (SEQ ID NO: 25)
Vidania		bacteriomes	
<i>Nasuia deltocephalinicola</i>	pestiferous insect host, Macrosteles quadripunctulatu s (Hemiptera: Cicadellidae)	bacteriomes	AGTTTAATCCTGGCTCAGATTTA ACGCTTGCGACATGCCTAACAC ATGCAAGTTGAACGTTGAAAATA TTTCAAAGTAGCGTATAGGTGA GTATAACATTTAAACATACCTTA AAGTTCGGAATACCCCGATGAA AATCGGTATAATACCGTATAAAA GTATTTAAGAATTAAAGCGGGG AAAACCTCGTGCTATAAGATTGT TAAATGCCTGATTAGTTTGTGG TTTTTAAGGTAAAAGCTTACCAA GACTTTGATCAGTAGCTATTCTG TGAGGATGTATAGCCACATTGG GATTGAAATAATGCCCAAACCT CTACGGAGGGCAGCAGTGGGG AATATTGGACAATGAGCGAAAG CTTGATCCAGCAATGTCGCGTG TGCGATTAAGGGAAACTGTAAA GCACTTTTTTTTAAGAATAAGAA ATTTTAATTAATAATTAAATTTT TGAATGTATTAAGAATAAGTA CCGACTAATCACGTGCCAGCAG TCGCGGTAATACGTGGGGTGC GAGCGTTAATCGGATTTATTGG GCGTAAAGTGTATTGAGGCTGC TTAAAAAGATTTATATTAATATT TAAATTAAATTTAAAAATGTATA AATTACTATTAAGCTAGAGTTTA GTATAAGAAAAAAGAATTTTATG TGTAGCAGTGAAATGCGTTGAT ATATAAAGGAACGCCGAAAGCG

			AAAGCATTCTTCTGTAATAGAAC TGACGCTTATATACGAAAGCGT GGGTAGCAAACAGGATTAGATA CCCTGGTAGTCCACGCCCTAAA CTATGTCAATTAAGTATTAGAAT TTTTTTTAGTGGTGTAGCTAACG CGTTAAATTGACCGCCTGGGTA TTACGATCGCAAGATTAAGACTC AAAGGAATTGACGGGGACCAGC ACAAGCGGTGGATGATGTGGAT TAATTCGATGATACGCGAAAAA CCTTACCTGCCCTTGACATGGT TAGAATTTTATTGAAAAATAAAA GTGCTTGGAAAAGAGCTAACAC ACAGGTGCTGCATGGCTGTCGT CAGCTCGTGTCTGAGATGTTG GGTTAAGTCCCGCAACGAGCGC AACCCTACTCTTAGTTGCTAAT TAAAGAACTTTAAGAGAACAGCT AACATAAGTTTAGAGGAAGGA GGGGATGACTTCAAGTCCTCAT GGCCCTTATGGGCAGGGCTTCA CACGTCATACAATGGTTAATACA AAAAGTTGCAATATCGTAAGATT GAGCTAATCTTTAAATTAATCT TAGTTCGGATTGTACTCTGCAA CTCGAGTACATGAAGTTGGAAT CGCTAGTAATCGCGGATCAGCA TGCCGCGGTGAATAGTTTAACT GGTCTTGTACACACCGCCCGTC ACACCATGGAAATAAATCTTGTT TTAAATGAAGTAATATATTTTATC AAAACAGGTTTTGTAACCGGGG TGAAGTCGTAACA (SEQ ID NO: 26)
<i>Candidatus Zinderia insecticola</i> CARI	spittlebug <i>Clastoptera arizonana</i>	bacteriocytes	ATATAAATAAGAGTTTGATCCTG GCTCAGATTGAACGCTAGCGGT ATGCTTTACACATGCAAGTCGA

		ACGACAATATTAAAGCTTGCTTT AATATAAAGTGGCGAACGGGTG AGTAATATATCAAAACGTACCTT AAAGTGGGGGATAACTAATTGA AAAATTAGATAATACCGCATATT AATCTTAGGATGAAAATAGGAAT AATATCTTATGCTTTTAGATCGG TTGATATCTGATTAGCTAGTTGG TAGGGTAAATGCTTACCAAGGC AATGATCAGTAGCTGGTTTTAG CGAATGATCAGCCACACTGGAA CTGAGACACGGTCCAGACTTCT ACGGAAGGCAGCAGTGGGGAA TATTGGACAATGGGAGAAATCC TGATCCAGCAATACCGCGTGAG TGATGAAGGCCTTAGGGTCGTA AAACTCTTTTGTTAGGAAAGAAA TAATTTTAAATAATTTTAAAATT GATGACGGTACCTAAAGAATAA GCACCGGCTAACTACGTGCCAG CAGCCGCGGTAATACGTAGGGT GCAAGCGTTAATCGGAATTATT GGGCGTAAAGAGTGCGTAGGC TGTTATATAAGATAGATGTGAAA TACTTAAGCTTAACTTAAGAACT GCATTTATTACTGTTTAACTAGA GTTTATTAGAGAGAAGTGGGAATT TTATGTGTAGCAGTGAAATGCG TAGATATATAAAGGAATATCGAT GGCGAAGGCAGCTTCTTGGAAT AATACTGACGCTGAGGCACGAA AGCGTGGGGAGCAAACAGGATT AGATACCCTGGTAGTCCACGCC CTAAACTATGTCTACTAGTTATT AAATTAAAAATAAAATTTAGTAA CGTAGCTAACGCATTAAGTAGA CCGCCTGGGGAGTACGATCGC AAGATTAAAACTCAAAGGAATTG ACGGGGACCCGCACAAGCGGT
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			GGATGATGTGGATTAATTCGAT GCAACACGAAAAACCTTACCTA CTCTTGACATGTTTGGAATTTTA AAGAAATTTAAAAGTGCTTGAAA AAGAACC AAAACACAGGTGCTG CATGGCTGTCGTCAGCTCGTGT CGTGAGATGTTGGGTTAAGTCC CGCAACGAGCGCAACCCTTGTT ATTATTTGCTAATAAAAAGAACT TTAATAAGACTGCCAATGACAAA TTGGAGGAAGGTGGGGATGAC GTCAAGTCCTCATGGCCCTTAT GAGTAGGGCTTCACACGTCATA CAATGATATATACAATGGGTAG CAAATTTGTGAAAATGAGCCAAT CCTTAAAGTATATCTTAGTTCGG ATTGTAGTCTGCAACTCGACTA CATGAAGTTGGAATCGCTAGTA ATCGCGGATCAGCATGCCGCG GTGAATACGTTCTCGGGTCTTG TACACACCGCCCGTCACACCAT GGAAGTGATTTTTACCAGAAATT ATTTGTTTAACCTTTATTGGAAA AAAATAATTAAGGTAGAATTCAT GACTGGGGTGAAGTCGTAACAA GGTAGCAGTATCGGAAGGTGC GGCTGGATTACATTTTAAAT (SEQ ID NO: 27)
<i>Proffella armatura</i>	<i>Diaphorina citri</i> , the Asian citrus psyllid	bacteriomes	
Alpha proteobacteria			
Hodgkinia	<i>Cicada</i> <i>Diceroprocta</i> <i>semicincta</i>	bacteriome	AATGCTGGCGGCAGGCCTAACA CATGCAAGTCGAGCGGACAACG TTCAAACGTTGTTAGCGGCGAA CGGGTGAGTAATACGTGAGAAT CTACCCATCCCAACGTGATAAC

		ATAGTCAACACCATGTCAATAAC GTATGATTCCTGCAACAGGTAA AGATTTTATCGGGGATGGATGA GCTCACGCTAGATTAGCTAGTT GGTGAGATAAAAGCCCACCAAG GCCAAGATCTATAGCTGGTCTG GAAGGATGGACAGCCACATTGG GACTGAGACAAGGCCCAACCCT CTAAGGAGGGCAGCAGTGAGG AATATTGGACAATGGGCGTAAG CCTGATCCAGCCATGCCGCATG AGTGATTGAAGGTCCAACGGAC TGTAAACTCTTTTCTCCAGAGA TCATAAATGATAGTATCTGGTGA TATAAGCTCCGGCCAAC TTCGT GCCAGCAGCCGCGGTAATACG AGGGGAGCGAGTATTGTTCCGT TTTATTGGGCGTAAAGGGTGTC CAGGTTGCTAAGTAAGTTAACA ACAAAATCTTGAGATTCAACCTC ATAACGTTCCGGTTAATACTACTA AGCTCGAGCTTGGATAGAGACA AACGGAATTCCGAGTGTAGAGG TGAAATTCGTTGATACTTGGAG GAACACCAGAGGCGAAGGCGG TTTGTACATACCAAGCTGACACT GAAGACACGAAAGCATGGGGA GCAAACAGGATTAGATACCCTG GTAGTCCATGCCCTAAACGTTG AGTGCTAACAGTTCGATCAAGC CACATGCTATGATCCAGGATTG TACAGCTAACGCGTTAAGCACT CCGCCTGGGTATTACGACCGCA AGGTTAAAACTCAAAGGAATTG ACGGAGACCCGCACAAGCGGT GGAGCATGTGGTTTAATTGAA GCTACACGAAGAACCTTACCAG CCCTTGACATACCATGGCCAAC CATCCTGGAAACAGGATGTTGT
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			TCAAGTTAAACCCTTGAAATGCC AGGAACAGGTGCTGCATGGCTG TTGTCAGTTCGTGTCGTGAGAT GTATGGTTAAGTCCCAAACGA ACACAACCCTCACCCATAGTTG CCATAAACACAATTGGGTTCTCT ATGGGTACTGCTAACGTAAGTT AGAGGAAGGTGAGGACCACAA CAAGTCATCATGGCCCTTATGG GCTGGGCCACACACATGCTACA ATGGTGGTTACAAAGAGCCGCA ACGTTGTGAGACCGAGCAAATC TCCAAAGACCATCTCAGTCCGG ATTGTA CTCTGCAACCCGAGTA CATGAAGTAGGAATCGCTAGTA ATCGTGGATCAGCATGCCACGG TGAATACGTTCTCGGGTCTTGT ACACGCCGCCCGTCACACCATG GGAGCTTCGCTCCGATCGAAGT CAAGTTACCCTTGACCACATCTT GGCAAGTGACCGA (SEQ ID NO: 28)
<i>Wolbachia</i> strain wPip	Mosquito <i>Culex</i> <i>quinquefasciatus</i>	bacteriome	AAATTTGAGAGTTTGATCCTGG CTCAGAATGAACGCTGGCGGCA GGCCTAACACATGCAAGTCGAA CGGAGTTATATTGTAGCTTGCTA TGGTATAACTTAGTGGCAGACG GGTGAGTAATGTATAGGAATCT ACCTAGTAGTACGGAATAATTGT TGGAACGACAATAATACCGT ATACGCCCTACGGGGGAAAAT TTATTGCTATTAGATGAGCCTAT ATTAGATTAGCTAGTTGGTGGG GTAATAGCCTACCAAGGTAATG ATCTATAGCTGATCTGAGAGGA TGATCAGCCACACTGGAAGTGA GATACGGTCCAGACTCCTACGG GAGGCAGCAGTGGGGAATATTG

		GACAATGGGCGAAAGCCTGATC CAGCCATGCCGCATGAGTGAAG AAGGCCTTTGGGTTGTAAAGCT CTTTTAGTGAGGAAGATAATGA CGGTACTCACAGAAGAAGTCCT GGCTAACTCCGTGCCAGCAGCC GCGGTAATACGGAGAGGGCTA GCGTTATTCGGAATTATTGGGC GTAAAGGGCGCGTAGGCTGGTT AATAAGTTAAAAGTGAAATCCCG AGGCTTAACCTTGGAATTGCTTT TAAACTATTAATCTAGAGATTG AAAGAGGATAGAGGAATTCCTG ATGTAGAGGTAAAATTCGTAAAT ATTAGGAGGAACACCAGTGGCG AAGGCGTCTATCTGGTTCAAAT CTGACGCTGAAGCGCGAAGGC GTGGGGAGCAAACAGGATTAGA TACCCTGGTAGTCCACGCTGTA AACGATGAATGTTAAATATGGG GAGTTTACTTTCTGTATTACAGC TAACGCGTTAAACATTCCGCCT GGGGACTACGGTCGCAAGATTA AAACTCAAAGGAATTGACGGGG ACCCGCACAAGCGGTGGAGCA TGTGGTTTAATTGATGCAACG CGAAAAACCTTACCACTTCTTGA CATGAAAATCATACCTATTTCGAA GGGATAGGGTCGGTTCGGCCG GATTTTACACAAGTGTTGCATG GCTGTCGTCAGCTCGTGTCTGTG AGATGTTGGGTTAAGTCCCGCA ACGAGCGCAACCCTCATCCTTA GTTGCCATCAGGTAATGCTGAG TACTTTAAGGAACTGCCAGTG ATAAGCTGGAGGAAGGTGGGG ATGATGTCAAGTCATCATGGCC TTTATGGAGTGGGCTACACACG TGCTACAATGGTGTCTACAATG
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			GGCTGCAAGGTGCGCAAGCCT AAGCTAATCCCTAAAAGACATCT CAGTTCGGATTGTACTCTGCAA CTCGAGTACATGAAGTTGGAAT CGCTAGTAATCGTGGATCAGCA TGCCACGGTGAATACGTTCTCG GGTCTTGTACACACTGCCCCGTC ACGCCATGGGAATTGGTTTCAC TCGAAGCTAATGGCCTAACCGC AAGGAAGGAGTTATTTAAAGTG GGATCAGTGACTGGGGTGAAGT CGTAACAAGGTAGCAGTAGGGG AATCTGCAGCTGGATTACCTCC TTA (SEQ ID NO: 29)
Bacteroidetes			
<i>Candidatus Uzinura diaspidicola</i>	armoured scale insects	bacteriocytes	AAAGGAGATATTCCAACCACAC CTTCCGGTACGGTTACCTTGTT ACGACTTAGCCCTAGTCATCAA GTTTACCTTAGGCAGACCACTG AAGGATTACTGACTTCAGGTAC CCCCGACTCCCATGGCTTGACG GGCGGTGTGTACAAGGTTTCGAG AACATATTCACCGCGCCATTGC TGATGCGCGATTACTAGCGATT CCTGCTTCATAGAGTCGAATTG CAGACTCCAATCCGAAGTGAAGA CTGGTTTTAGAGATTAGCTCCT GATCACCAGTGGCTGCCCTTT GTAACCAGCCATTGTAGCACGT GTGTAGCCCAAGGCATAGAGGC CATGATGATTTGACATCATCCCC ACCTTCCTCACAGTTTACACCG GCAGTTTTGTTAGAGTCCCCGG CTTTACCCGATGGCAACTAACA ATAGGGGTTGCGCTCGTTATAG GACTTAACCAAACACTTCACAG

		CACGAACTGAAGACAACCATGC AGCACCTTGTAATACGTCTGTATA GACTAAGCTGTTTCCAGCTTATT CGTAATACATTTAAGCCTTGGTA AGGTTCTCGCGTATCATCGAA TTAAACCACATGCTCCACCGCT TGTGCGAACCCCCGTCAATTCC TTTGAGTTTCAATCTTGCGACTG TACTCCCAGGTGGATCACTTAT CGCTTTTCGCTAAGCCACTGAAT ATCGTTTTTCCAATAGCTAGTGA TCATCGTTTAGGGCGTGGACTA CCAGGGTATCTAATCCTGTTTG CTCCCCACGCTTTCGTGCACTG AGCGTCAGTAAAGATTTAGCAA CCTGCCTTCGCTATCGGTGTTT TGTATGATATCTATGCATTTAC CGCTACACCATACATTCCAGAT GCTCCAATCTTACTCAAGTTTAC CAGTATCAATAGCAATTTTACAG TTAAGCTGTAAGCTTTCCTACT GACTTAATAAACAGCCTACACA CCCTTTAAACCCAATAAATCCGA ATAACGCTTGTGTCATCCGTATT GCCGCGGCTGCTGGCACGGAA TTAGCCGACACTTATTCGTATAG TACCTTCAATCTCCTATCACGTA AGATATTTTATTTCTATACAAA GCAGTTTACAACCTAAAAGACC TTCATCCTGCACGCGACGTAGC TGGTTCAGAGTTTCCTCCATTGA CCAATATTCCTCACTGCTGCCT CCCGTAGGAGTCTGGTCCGTGT CTCAGTACCAGTGTGGAGGTAC ACCCTCTTAGGCCCCCTACTGA TCATAGTCTTGGTAGAGCCATTA CCTCACCAACTAACTAATCAAAC GCAGGCTCATCTTTTGCCACCT AAGTTTTAATAAAGGCTCCATGC
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			AGAAACTTTTATATTATGGGGGAT TAATCAGAATTTCTTCTGGCTAT ACCCAGCAAAAGGTAGATTGC ATACGTGTTACTCACCCATTCTG CCGGTCGCCGACAAATTAATAA TTTTTCGATGCCCTCGACTTG CATGTGTTAAGCTCGCCGCTAG CGTTAATTCTGAGCCAGGATCA AACTCTTCGTTGTAG (SEQ ID NO: 30)
<i>Sulcia muelleri</i>	Blue-Green Sharpshooter and several other leafhopper species	bacteriocytes	CTCAGGATAAACGCTAGCGGAG GGCTTAACACATGCAAGTCGAG GGGCAGCAAAAATAATTATTTTT GGCGACCGGCAAACGGGTGAG TAATACATACGTAACCTTCCTTA TGCTGAGGAATAGCCTGAGGAA ACTTGGATTAATACCTCATAATA CAATTTTTTAGAAAGAAAATTG TTAAAGTTTTATTATGGCATAAG ATAGGCGTATGTCCAATTAGTTA GTTGGTAAGGTAATGGCTTACC AAGACGATGATTGGTAGGGGGC CTGAGAGGGGCGTTCCCCAC ATTGGTACTGAGACACGGACCA AACTTCTACGGAAGGCTGCAGT GAGGAATATTGGTCAATGGAGG AACTCTGAACCAGCCACTCCG CGTGCAGGATGAAAGAAAGCCT TATTGGTTGTAACTGCTTTTGT ATATGAATAAAAAATTCTAATTAT AGAAATAATTGAAGGTAATATAC GAATAAGTATCGACTAACTCTGT GCCAGCAGTCGCGGTAAGACA GAGGATACAAGCGTTATCCGGA TTTATTGGGTTTAAAGGGTGCG TAGGCGGTTTTTAAAGTCAGTA GTGAAATCTTAAAGCTTAACTTT AAAAGTGCTATTGATACTGAAAA

		ACTAGAGTAAGGTTGGAGTAAC TGGAATGTGTGGTGTAGCGGTG AAATGCATAGATATCACACAGAA CACCGATAGCGAAAGCAAGTTA CTAACCCTATACTGACGCTGAG TCACGAAAGCATGGGGAGCAAA CAGGATTAGATACCCTGGTAGT CCATGCCGTAAACGATGATCAC TAACTATTGGGTTTTATACGTTG TAATTCAGTGGTGAAGCGAAAG TGTTAAGTGATCCACCTGAGGA GTACGACCGCAAGGTTGAAACT CAAAGGAATTGACGGGGGCCC GCACAATCGGTGGAGCATGTGG TTTAATTGATGATACACGAGGA ACCTTACCAAGACTTAAATGTAC TACGAATAAATTGGAAACAATTT AGTCAAGCGACGGAGTACAAGG TGCTGCATGGTTGTCGTCAGCT CGTGCCGTGAGGTGTAAGGTTA AGTCCTTTAAACGAGCGCAACC CTTATTATTAGTTGCCATCGAGT AATGTCAGGGGACTCTAATAAG ACTGCCGGCGCAAGCCGAGAG GAAGGTGGGGATGACGTCAAAT CATCACGGCCCTTACGTCTTGG GCCACACACGTGCTACAATGAT CGGTACAAAAGGGAGCGACTG GGTGACCAGGAGCAAATCCAGA AAGCCGATCTAAGTTCGGATTG GAGTCTGAAACTCGACTCCATG AAGCTGGAATCGCTAGTAATCG TGCATCAGCCATGGCACGGTGA ATATGTTCCCGGGCCTTGTACA CACCGCCCGTCAAGCCATGGAA GTTGGAAGTACCTAAAGTTGGT TCGCTACCTAAGGTAAGTCTAAT AACTGGGGCTAAGTCGTAACAA GGTA
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			(SEQ ID NO: 31)
Yeast like			
<i>Symbiotaphrina buchneri</i> voucher JCM9740	Anobiid beetles <i>Stegobium</i> <i>paniceum</i>	mycetome between the foregut and midgut	AGATTAAGCCATGCAAGTCTAA GTATAAGNAATCTATACNGTGAA ACTGCGAATGGCTCATTAATC AGTTATCGTTTATTTGATAGTAC CTTACTACATGGATAACCGTGG TAATTCTAGAGCTAATACATGCT AAAAACCCCGACTTCGGAAGGG GTGTATTTATTAGATAAAAAACC AATGCCCTTCGGGGCTCCTTGG TGATTCATGATAACTTAACGAAT CGCATGGCCTTGCGCCGGCGA TGGTTCATTCAAATTTCTGCCCT ATCAACTTTGATGGTAGGATA GTGGCCTACCATGGTTTTAACG GGTAACGGGGAATTAGGGTTCCG ATTCCGGAGAGGGAGCCTGAG AAACGGCTACCACATCCAAGGA AGGCAGCAGGCGCGCAAATTAC CCAATCCCGACACGGGGAGGT AGTGACAATAAATACTGATACAG GGCTCTTTTGGGTCTTGTAATTG GAATGAGTACAATTTAAATCCCT TAACGAGGAACAATTGGAGGGC AAGTCTGGTGCCAGCAGCCGC GGTAATTCCAGCTCCAATAGCG TATATTAAAGTTGTTGCAGTTAA AAAGCTCGTAGTTGAACCTTGG GCCTGGCTGGCCGGTCCGCCT AACCGCGTGTACTGGTCCGGCC GGGCCTTTCCTTCTGGGGAGCC GCATGCCCTTCACTGGGTGTGT CGGGGAACCAGGACTTTTACTT TGAAAAAATTAGAGTGTTCAAAG CAGGCCTATGCTCGAATACATT AGCATGGAATAATAGAATAGGA

		CGTGCGGTTCTATTTTGTGGTT TCTAGGACCGCCGTAATGATTA ATAGGGATAGTCGGGGGCATCA GTATTCAATTGTCAGAGGTGAA ATTCTTGGATTTATTGAAGACTA ACTACTGCGAAAGCATTGCGCA AGGATGTTTTCTTAATCAGTGA ACGAAAGTTAGGGGATCGAAGA CGATCAGATACCGTCGTAGTCT TAACCATAAACTATGCCGACTA GGGATCGGGCGATGTTATTATT TTGACTCGCTCGGCACCTTACG AGAAATCAAAGTCTTTGGGTTCT GGGGGGAGTATGGTCGCAAGG CTGAAACTTAAAGAAATTGACG GAAGGGCACCACCAGGAGTGG AGCCTGCGGCTTAATTTGACTC AACACGGGGAACTCACCAGGT CCAGACACATTAAGGATTGACA GATTGAGAGCTCTTTCTTGATTA TGTGGGTGGTGGTGCATGGCC GTTCTTAGTTGGTGGAGTGATTT GTCTGCTTAATTGCGATAACGA ACGAGACCTTAACCTGCTAAAT AGCCCGGTCCGCTTTGGCGGG CCGCTGGCTTCTTAGAGGGACT ATCGGCTCAAGCCGATGGAAGT TTGAGGCAATAACAGGTCTGTG ATGCCCTTAGATGTTCTGGGCC GCACGCGCGCTACACTGACAGA GCCAACGAGTAAATCACCTTGG CCGGAAGGTCTGGGTAATCTTG TTAAACTCTGTCGTGCTGGGGA TAGAGCATTGCAATTATTGCTCT TCAACGAGGAATTCCTAGTAAG CGCAAGTCATCAGCTTGCGCTG ATTACGTCCCTGCCCTTTGTACA CACCGCCCGTCGCTACTACCGA TTGAATGGCTCAGTGAGGCCTT
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			CGGACTGGCACAGGGACGTTG GCAACGACGACCCAGTGCCGG AAAGTTGGTCAAACCTGGTCATT TAGAGGAAGTAAAAGTCGTAAC AAGGTTTCCGTAGGTGAACCTG CGGAAGGATCATT (SEQ ID NO: 32)
<i>Symbiotaphrina kochii</i> voucher CBS 589.63	Anobiid beetles <i>Lasioderma</i> <i>serricorne</i>	mycetome	TACCTGGTTGATTCTGCCAGTA GTCATATGCTTGTCTCAAAGATT AAGCCATGCAAGTCTAAGTATA AGCAATCTATACGGTGAACTG CGAATGGCTCATTAAATCAGTTA TCGTTTATTTGATAGTACCTTAC TACATGGATAACCGTGGTAATT CTAGAGCTAATACATGCTAAAAA CCTCGACTTCGGAAGGGGTGTA TTTATTAGATAAAAAACCAATGC CCTTCGGGGCTCCTTGGTGATT CATGATAACTTAACGAATCGCAT GGCCTTGCGCCGGCGATGGTT CATTCAAATTTCTGCCCTATCAA CTTTCGATGGTAGGATAGTGGC CTACCATGGTTTCAACGGGTAA CGGGGAATTAGGGTTCGATTCC GGAGAGGGAGCCTGAGAAACG GCTACCACATCCAAGGAAGGCA GCAGGCGCGCAAATTACCCAAT CCCGACACGGGGAGGTAGTGA CAATAAATACTGATACAGGGCT CTTTTGGGTCTTGTAATTGGAAT GAGTACAATTTAAATCCCTTAAC GAGGAACAATTGGAGGGCAAGT CTGGTGCCAGCAGCCGCGGTA ATTCCAGCTCCAATAGCGTATAT TAAAGTTGTTGCAGTTAAAAAGC TCGTAGTTGAACCTTGGGCCTG GCTGGCCGGTCCGCCTAACCG CGTGTAAGTGGTCCGGCCGGGC

		CTTTCCTTCTGGGGAGCCGCAT GCCCTTCACTGGGTGTGTCTGGG GAACCAGGACTTTTACTTTGAAA AAATTAGAGTGTTCAAAGCAGG CCTATGCTCGAATACATTAGCAT GGAATAATAGAATAGGACGTGT GGTTCTATTTTGTGTTTCTAG GACCGCCGTAATGATTAATAGG GATAGTCGGGGGCATCAGTATT CAATTGTCAGAGGTGAAATTCTT GGATTTATTGAAGACTAACTACT GCGAAAGCATTGCGCAAGGATG TTTTCATTAAATCAGTGAACGAAA GTTAGGGGATCGAAGACGATCA GATACCGTCGTAGTCTTAACCA TAACTATGCCGACTAGGGATC GGGCGATGTTATTATTTTGA CTC GCTCGGCACCTTACGAGAAATC AAAGTCTTTGGGTTCTGGGGGG AGTATGGTCGCAAGGCTGAAAC TTAAAGAAATTGACGGAAGGGC ACCACCAGGAGTGGAGCCTGC GGCTTAATTTGACTCAACACGG GGAAACTCACCAGGTCCAGACA CATTAAAGATTGACAGATTGAG AGCTCTTTCTTGATTATGTGGGT GGTGGTGCATGGCCGTTCTTAG TTGGTGGAGTGATTTGTCTGCT TAATTGCGATAACGAACGAGAC CTTAACCTGCTAAATAGCCCGG TCCGCTTTGGCGGGCCGCTGG CTTCTTAGAGGGACTATCGGCT CAAGCCGATGGAAGTTTGAGGC AATAACAGGTCTGTGATGCCCT TAGATGTTCTGGGCCGCACGCG CGCTACACTGACAGAGCCAACG AGTACATCACCTTGCCGGAAG GTCTGGGTAATCTTGTTAACTC TGTCGTGCTGGGGATAGAGCAT
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			TGCAATTATTGCTCTTCAACGAG GAATTCCTAGTAAGCGCAAGTC ATCAGCTTGCGCTGATTACGTC CCTGCCCTTTGTACACACCGCC CGTCGCTACTACCGATTGAATG GCTCAGTGAGGCCTTCGGACTG GCACAGGGACGTTGGCAACGA CGACCCAGTGCCGAAAAGTTTCG TCAAACCTTGGTCATTTAGAGGAA GNNNAAGTCGTAACAAGGTTTC CGTAGGTGAACCTGCGGAAGG ATCATTA (SEQ ID NO: 33)
Primary extracellular symbiont	Host	Location	16 rRNA
<i>Burkholderia</i> strain SFA1	<i>Riptortus pedestris</i>	Gut	AGTTTGATCCTGGCTCAGATTG AACGCTGGCGGCATGCCTTACA CATGCAAGTCGAACGGCAGCAC GGGGGCAACCCTGGTGGCGAG TGGCGAACGGGTGAGTAATACA TCGGAACGTGTCCTGTAGTGGG GGATAGCCCGGCGAAAGCCGG ATTAATACCGCATACGACCTAA GGGAGAAAGCGGGGGATCTTC GGACCTCGCGCTATAGGGGCG GCCGATGGCAGATTAGCTAGTT GGTGGGGTAAAGGCCTACCAA GGCGACGATCTGTAGCTGGTCT GAGAGGACGACCAGCCACACT GGGACTGAGACACGGCCCAGA CTCCTACGGGAGGCAGCAGTG GGGAATTTTGGACAATGGGGGC AACCTGATCCAGCAATGCCGC GTGTGTGAAGAAGGCTTCGGGT TGTAAGCACTTTTGTCCGGAA AGAAAACCTTCGTCCCTAATATG GATGGAGGATGACGGTACCGG

		AAGAATAAGCACCGGCTAACTA CGTGCCAGCAGCCGCGGTAATA CGTAGGGTGCGAGCGTTAATCG GAATTACTGGGCGTAAAGCGTG CGCAGGCGGTCTGTTAAGACCG ATGTGAAATCCCCGGGCTTAAC CTGGGAACTGCATTGGTGA CTG GCAGGCTTTGAGTGTGGCAGAG GGGGGTAGAATTCCACGTGTAG CAGTGAAATGCGTAGAGATGTG GAGGAATACCGATGGCGAAGG CAGCCCCCTGGGCCAACTACTG ACGCTCATGCACGAAAGCGTGG GGAGCAAACAGGATTAGATACC CTGGTAGTCCACGCCCTAAACG ATGTCAACTAGTTGTTGGGGAT TCATTTCCTTAGTAACGTAGCTA ACGCGTGAAGTTGACCGCCTGG GGAGTACGGTCGCAAGATTAAA ACTCAAAGGAATTGACGGGGAC CCGCACAAGCGGTGGATGATGT GGATTAATTCGATGCAACGCGA AAAACCTTACCTACCCTTGACAT GGTCGGAACCCTGCTGAAAGGT GGGGGTGCTCGAAAGAGAACC GGCGCACAGGTGCTGCATGGC TGTCGTCAGCTCGTGTCTGTGAG ATGTTGGGTTAAGTCCCGCAAC GAGCGCAACCCTTGTCTTAGT TGCTACGCAAGAGCACTCTAAG GAGACTGCCGGTGACAAACCG GAGGAAGGTGGGGATGACGTC AAGTCCTCATGGCCCTTATGGG TAGGGCTTCACACGTCATACAA TGGTCGGAACAGAGGGTTGCCA AGCCGCGAGGTGGAGCCAATC CCAGAAAACCGATCGTAGTCCG GATCGCAGTCTGCAACTCGACT GCGTGAAGCTGGAATCGCTAGT
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			AATCGCGGATCAGCATGCCGCG GTGAATACGTTCCCGGGTCTTG TACACACCGCCCGTCACACCAT GGGAGTGGGTTTCACCAGAAGT AGGTAGCCTAACCGCAAGGAG GGCGCTTACCACGGTGGGATTC ATGACTGGGGTGAAGTCGTAAC AAGGTAGC (SEQ ID NO: 34)
<i>Burkholderia</i> strain KM-A	<i>Riptortus pedestris</i>	Gut	GCAACCCTGGTGGCGAGTGGC GAACGGGTGAGTAATACATCGG AACGTGTCCTGTAGTGGGGGAT AGCCCGGCGAAAGCCGGATTAA TACCGCATACGATCTACGGAAG AAAGCGGGGGATCCTTCGGGA CCTCGCGCTATAGGGGCGGCC GATGGCAGATTAGCTAGTTGGT GGGGTAAAGGCCTACCAAGGC GACGATCTGTAGCTGGTCTGAG AGGACGACCAGCCACACTGGG ACTGAGACACGGCCAGACTCC TACGGGAGGCAGCAGTGGGGA ATTTTGGACAATGGGGGCAACC CTGATCCAGCAATGCCGCGTGT GTGAAGAAGGCCTTCGGGTTGT AAAGCACTTTTGTCCGAAAGA AAACGTCTTGTTAATACCTGA GGCGGATGACGGTACCGGAAG AATAAGCACCGGCTAACTACGT GCCAGCAGCCGCGGTAATACGT AGGGTGCGAGCGTTAATCGGAA TACTGGGCGTAAAGCGTGCGC AGGCGGTCTGTTAAGACCGATG TGAAATCCCCGGGCTTAACCTG GGAAGTGCATTGGTGAAGGCA GGCTTTGAGTGTGGCAGAGGG GGGTAGAATTCCACGTGTAGCA GTGAAATGCGTAGAGATGTGGA

		GGAATACCGATGGCGAAGGCA GCCCCCTGGGCCAACACTGAC GCTCATGCACGAAAGCGTGGG GAGCAAACAGGATTAGATACCC TGGTAGTCCACGCCCTAAACGA TGTCAACTAGTTGTTGGGGATT CATTTCTTAGTAACGTAGCTAA CGCGTGAAGTTGACCGCCTGG GGAGTACGGTCGCAAGATTAAA ACTCAAAGGAATTGACGGGGAC CCGCACAAGCGGTGGATGATGT GGATTAATTGATGCAACGCGA AAACCTTACCTACCCTTGACAT GGTCGGAAGTCTGCTGAGAGGT GGACGTGCTCGAAAGAGAACC GGCGCACAGGTGCTGCATGGC TGTCGTCAGCTCGTGTCTGAG ATGTTGGGTTAAGTCCCGCAAC GAGCGCAACCCTTGTCCTTAGT TGCTACGCAAGAGCACTCTAAG GAGACTGCCGGTGACAAACCG GAGGAAGGTGGGGATGACGTC AAGTCCTCATGGCCCTTATGGG TAGGGCTTCACACGTCATACAA TGGTCGGAACAGAGGGTTGCCA AGCCGCGAGGTGGAGCCAATC CCAGAAAACCGATCGTAGTCCG GATCGCAGTCTGCAACTCGACT GCGTGAAGCTGGAATCGCTAG TAATCGCGGATCAGCATGCCGC GGTGAATACGTTCCCGGGTCTT GTACACACCGCCCGTCACACCA TGGGAGTGGGTTTACCAGAAG TAGGTAGCCTAACCGCAAGGAG GGCGCTTACCACGGTGGGATTC ATGACTGGGGTGAAGT (SEQ ID NO: 35)
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Burkholderia strain KM-G	Riptortus pedestris	Gut	GCAACCCTGGTGGCGAGTGGC GAACGGGTGAGTAATACATCGG AACGTGTCCTGTAGTGGGGGAT AGCCCGGCGAAAGCCGGATTAA TACCGCATACGACCTAAGGGAG AAAGCGGGGGATCTTCGGACCT CGCGCTATAGGGGCGGCCGAT GGCAGATTAGCTAGTTGGTGGG GTAAAGGCCTACCAAGGCGACG ATCTGTAGCTGGTCTGAGAGGA CGACCAGCCACACTGGGACTGA GACACGGCCCAGACTCCTACG GGAGGCAGCAGTGGGGAATTTT GGACAATGGGGGCAACCCTGAT CCAGCAATGCCGCGTGTGTGAA GAAGGCCTTCGGGTTGTAAAGC ACTTTTGTCCGAAAGAAAACCTT CGAGGTTAATACCCTTGGAGGA TGACGGTACCGGAAGAATAAGC ACCGGCTAACTACGTGCCAGCA GCCGCGGTAATACGTAGGGTG CGAGCGTTAATCGGAATTACTG GGCGTAAAGCGTGCGCAGGCG GTCTGTTAAGACCGATGTGAAA TCCCCGGGCTTAACCTGGGAAC TGCATTGGTGACTGGCAGGCTT TGAGTGTGGCAGAGGGGGTA GAATTCCACGTGTAGCAGTGAA ATGCGTAGAGATGTGGAGGAAT ACCGATGGCGAAGGCAGCCCC CTGGGCCAACACTGACGCTCAT GCACGAAAGCGTGGGGAGCAA ACAGGATTAGATACCCTGGTAG TCCACGCCCTAAACGATGTCAA CTAGTTGTTGGGGATTCAATTC TTAGTAACGTAGCTAACGCGTG AAGTTGACCGCCTGGGGAGTAC GGTCGCAAGATTAACACTCAAA GGAATTGACGGGGACCCGCAC
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			AAGCGGTGGATGATGTGGATTA ATTGATGCAACGCGAAAAACC TTACCTACCTTGACATGGTCG GAAGTCTGCTGAGAGGTGGAC GTGCTCGAAAGAGAACCGGCG CACAGGTGCTGCATGGCTGTC GTCAGCTCGTGTCTGAGATGT TGGGTTAAGTCCCGCAACGAGC GCAACCCTTGTCCTTAGTTGCT ACGCAAGAGCACTCTAAGGAGA CTGCCGGTGACAAACCGGAGG AAGGTGGGGATGACGTCAAGTC CTCATGGCCCTTATGGGTAGGG CTTCACACGTCATACAATGGTC GGAACAGAGGGTTGCCAAGCC GCGAGGTGGAGCCAATCCCAG AAAACCGATCGTAGTCCGGATC GCAGTCTGCAACTCGACTGCGT GAAGCTGGAATCGCTAGTAATC GCGGATCAGCATGCCGCGGTG AATACGTTCCCGGGTCTTGAC ACACCGCCCGTCACACCATGGG AGTGGGTTTCACCAGAAGTAGG TAGCCTAACCTGCAAAGGAGGG CGCTTACCACG (SEQ ID NO: 36)
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IV. Formulations and Compositions

The compositions described herein may be formulated either in pure form (e.g., the composition contains only the bacterial colonization-disrupting agent) or together with one or more additional agents (such as excipient, delivery vehicle, carrier, diluent, stabilizer, etc.) to facilitate application or delivery of the compositions. Examples of suitable excipients and diluents include, but are not limited to, lactose, dextrose, sucrose, sorbitol, mannitol, starches, gum acacia, calcium phosphate, alginates, tragacanth, gelatin, calcium silicate, microcrystalline cellulose, polyvinylpyrrolidone, cellulose, water, saline solution, syrup, methylcellulose, methyl- and propylhydroxybenzoates, talc, magnesium stearate, and mineral oil.

The composition may include a wetting solution (e.g., a non-ionic wetting solution), e.g., SiWet®.

To allow ease of application, handling, transportation, storage, and maximum activity, the bacterial colonization-disrupting agent can be formulated with other substances. The bacterial colonization-disrupting agent can be formulated into, for example, baits, concentrated emulsions, dusts,

emulsifiable concentrates, fumigants, gels, granules, microencapsulations, seed treatments, suspension concentrates, suspoemulsions, tablets, water soluble liquids, water dispersible granules or dry flowables, wettable powders, and ultra-low volume solutions.

The bacterial colonization-disrupting agent can be applied as aqueous suspensions or emulsions prepared from concentrated formulations of such agents. Such water-soluble, water-suspendable, or emulsifiable formulations are either solids, usually known as wettable powders, or water dispersible granules, or liquids usually known as emulsifiable concentrates, or aqueous suspensions. Wettable powders, which may be compacted to form water dispersible granules, comprise an intimate mixture of the bacterial colonization-disrupting agent, a carrier, and surfactants. The carrier is usually selected from among the attapulgite clays, the montmorillonite clays, the diatomaceous earths, or the purified silicates. Effective surfactants, including from about 0.5% to about 10% of the wettable powder, are found among sulfonated lignins, condensed naphthalenesulfonates, naphthalenesulfonates, alkylbenzenesulfonates, alkyl sulfates, and non-ionic surfactants such as ethylene oxide adducts of alkyl phenols.

Emulsifiable concentrates can comprise a suitable concentration of a bacterial colonization-disrupting agent, such as from about 50 to about 500 grams per liter of liquid dissolved in a carrier that is either a water miscible solvent or a mixture of water-immiscible organic solvent and emulsifiers. Useful organic solvents include aromatics, especially xylenes and petroleum fractions, especially the high-boiling naphthalenic and olefinic portions of petroleum such as heavy aromatic naphtha. Other organic solvents may also be used, such as the terpenic solvents including rosin derivatives, aliphatic ketones such as cyclohexanone, and complex alcohols such as 2-ethoxyethanol. Suitable emulsifiers for emulsifiable concentrates are selected from conventional anionic and non-ionic surfactants.

Aqueous suspensions comprise suspensions of a water-insoluble bacterial colonization-disrupting agent dispersed in an aqueous carrier at a concentration in the range from about 5% to about 50% by weight. Suspensions are prepared by finely grinding the active agent and vigorously mixing it into a carrier comprised of water and surfactants. Ingredients, such as inorganic salts and synthetic or natural gums may also be added, to increase the density and viscosity of the aqueous carrier.

The bacterial colonization-disrupting agent may also be applied as granular compositions that are particularly useful for applications to the soil. Granular compositions can contain, for example, from about 0.5% to about 10% by weight of the bacterial colonization-disrupting agent, dispersed in a carrier that comprises clay or a similar substance. Such compositions are usually prepared by dissolving the formulation in a suitable solvent and applying it to a granular carrier which has been pre-formed to the appropriate particle size, in the range of from about 0.5 to about 3 mm. Such compositions may also be formulated by making a dough or paste of the carrier and compound and crushing and drying to obtain the desired granular particle size.

Dusts containing the present compositions are prepared by intimately mixing the bacterial colonization-disrupting agent in powdered form with a suitable dusty agricultural carrier, such as kaolin clay, ground volcanic rock, and the like. Dusts can suitably contain from about 1% to about 10% of the packets. They can be applied as a seed dressing or as a foliage application with a dust blower machine.

It is equally practical to apply the present formulation in the form of a solution in an appropriate organic solvent, usually petroleum oil, such as the spray oils, which are widely used in agricultural chemistry.

The bacterial colonization-disrupting agent can also be applied in the form of an aerosol composition. In such compositions the packets are dissolved or dispersed in a carrier, which is a pressure-generating propellant mixture. The aerosol composition is packaged in a container from which the mixture is dispensed through an atomizing valve.

Another embodiment is an oil-in-water emulsion, wherein the emulsion comprises oily globules which are each provided with a lamellar liquid crystal coating and are dispersed in an aqueous phase, wherein each oily globule comprises at least one compound which is agriculturally active, and is individually coated with a monolamellar or oligolamellar layer including: (1) at least one non-ionic lipophilic surface-active agent, (2) at least one non-ionic hydrophilic surface-active agent and (3) at least one ionic surface-active agent, wherein the globules having a mean particle diameter of less than 800 nanometers. Further information on the embodiment is disclosed in U.S. patent publication 20070027034 published Feb. 1, 2007. For ease of use, this embodiment will be referred to as "OIWE."

Additionally, generally, when the molecules disclosed above are used in a formulation, such formulation can also contain other components. These components include, but are not limited to, (this is a non-exhaustive and non-mutually exclusive list) wetters, spreaders, stickers, penetrants, buffers, sequestering agents, drift reduction agents, compatibility agents, anti-foam agents, cleaning agents, and emulsifiers. A few components are described forthwith.

A wetting agent is a substance that when added to a liquid increases the spreading or penetration power of the liquid by reducing the interfacial tension between the liquid and the surface on which it is spreading. Wetting agents are used for two main functions in agrochemical formulations: during processing and manufacture to increase the rate of wetting of powders in water to make concentrates for soluble liquids or suspension concentrates; and during mixing of a product with water in a spray tank to reduce the wetting time of wettable powders and to improve the penetration of water into water-dispersible granules. Examples of wetting agents used in wettable powder, suspension concentrate, and water-dispersible granule formulations are: sodium lauryl sulfate; sodium dioctyl sulfosuccinate; alkyl phenol ethoxylates; and aliphatic alcohol ethoxylates.

A dispersing agent is a substance which adsorbs onto the surface of particles and helps to preserve the state of dispersion of the particles and prevents them from reaggregating. Dispersing agents are added to agrochemical formulations to facilitate dispersion and suspension during manufacture, and to ensure the particles redisperse into water in a spray tank. They are widely used in wettable powders, suspension concentrates and water-dispersible granules. Surfactants that are used as dispersing agents have the ability to adsorb strongly onto a particle surface and provide a charged or steric barrier to reaggregation of particles. The most commonly used surfactants are anionic, non-ionic, or mixtures of the two types. For wettable powder formulations, the most common dispersing agents are sodium lignosulfonates. For suspension concentrates, very good adsorption and stabilization are obtained using polyelectrolytes, such as sodium naphthalene sulfonate formaldehyde condensates. Tristyrylphenol ethoxylate phosphate esters are also used. Non-ionics such as alkylarylethylene oxide

condensates and EO-PO block copolymers are sometimes combined with anionics as dispersing agents for suspension concentrates. In recent years, new types of very high molecular weight polymeric surfactants have been developed as dispersing agents. These have very long hydrophobic 'backbones' and a large number of ethylene oxide chains forming the 'teeth' of a 'comb' surfactant. These high molecular weight polymers can give very good long-term stability to suspension concentrates because the hydrophobic backbones have many anchoring points onto the particle surfaces. Examples of dispersing agents used in agrochemical formulations are: sodium lignosulfonates; sodium naphthalene sulfonate formaldehyde condensates; tristyrylphenol ethoxylate phosphate esters; aliphatic alcohol ethoxylates; alkyl ethoxylates; EO-PO (ethylene oxide - propylene oxide) block copolymers; and graft copolymers.

An emulsifying agent is a substance which stabilizes a suspension of droplets of one liquid phase in another liquid phase. Without the emulsifying agent the two liquids would separate into two immiscible liquid phases. The most commonly used emulsifier blends contain alkylphenol or aliphatic alcohol with twelve or more ethylene oxide units and the oil-soluble calcium salt of dodecylbenzenesulfonic acid. A range of hydrophile-lipophile balance ("HLB") values from 8 to 18 will normally provide good stable emulsions. Emulsion stability can sometimes be improved by the addition of a small amount of an EO-PO block copolymer surfactant.

A solubilizing agent is a surfactant which will form micelles in water at concentrations above the critical micelle concentration. The micelles are then able to dissolve or solubilize water-insoluble materials inside the hydrophobic part of the micelle. The types of surfactants usually used for solubilization are non-ionics, sorbitan monooleates, sorbitan monooleate ethoxylates, and methyl oleate esters.

Surfactants are sometimes used, either alone or with other additives such as mineral or vegetable oils as adjuvants to spray-tank mixes to improve the biological performance of the bacterial colonization-disrupting agent on the target. The types of surfactants used for bioenhancement depend generally on the nature and mode of action of the bacterial colonization-disrupting agent. However, they are often non-ionics such as: alkyl ethoxylates; linear aliphatic alcohol ethoxylates; aliphatic amine ethoxylates.

A carrier or diluent in an agricultural formulation is a material added to the bacterial colonization-disrupting agent to give a product of the required strength. Carriers are usually materials with high absorptive capacities, while diluents are usually materials with low absorptive capacities. Carriers and diluents are used in the formulation of dusts, wettable powders, granules, and water-dispersible granules.

Organic solvents are used mainly in the formulation of emulsifiable concentrates, oil-in-water emulsions, suspoemulsions, and ultra low volume formulations, and to a lesser extent, granular formulations. Sometimes mixtures of solvents are used. The first main groups of solvents are aliphatic paraffinic oils such as kerosene or refined paraffins. The second main group (and the most common) comprises the aromatic solvents such as xylene and higher molecular weight fractions of C9 and C10 aromatic solvents. Chlorinated hydrocarbons are useful as cosolvents to prevent crystallization of the bacterial colonization-disrupting agent when the formulation is emulsified into water. Alcohols are

sometimes used as cosolvents to increase solvent power. Other solvents may include vegetable oils, seed oils, and esters of vegetable and seed oils.

Thickeners or gelling agents are used mainly in the formulation of suspension concentrates, emulsions, and suspoemulsions to modify the rheology or flow properties of the liquid and to prevent separation and settling of the dispersed particles or droplets. Thickening, gelling, and anti-settling agents generally fall into two categories, namely water-insoluble particulates and water-soluble polymers. It is possible to produce suspension concentrate formulations using clays and silicas. Examples of these types of materials, include, but are not limited to, montmorillonite, bentonite, magnesium aluminum silicate, and attapulgite. Water-soluble polysaccharides have been used as thickening-gelling agents for many years. The types of polysaccharides most commonly used are natural extracts of seeds and seaweeds or are synthetic derivatives of cellulose. Examples of these types of materials include, but are not limited to, guar gum; locust bean gum; carrageenan; alginates; methyl cellulose; sodium carboxymethyl cellulose (SCMC); hydroxyethyl cellulose (HEC). Other types of anti-settling agents are based on modified starches, polyacrylates, polyvinyl alcohol, and polyethylene oxide. Another good anti-settling agent is xanthan gum.

Microorganisms can cause spoilage of formulated products. Therefore preservation agents are used to eliminate or reduce their effect. Examples of such agents include, but are not limited to: propionic acid and its sodium salt; sorbic acid and its sodium or potassium salts; benzoic acid and its sodium salt; p-hydroxybenzoic acid sodium salt; methyl p-hydroxybenzoate; and 1,2-benzisothiazolin-3-one (BIT).

The presence of surfactants often causes water-based formulations to foam during mixing operations in production and in application through a spray tank. In order to reduce the tendency to foam, anti-foam agents are often added either during the production stage or before filling into bottles. Generally, there are two types of anti-foam agents, namely silicones and non-silicones. Silicones are usually aqueous emulsions of dimethyl polysiloxane, while the non-silicone anti-foam agents are water-insoluble oils, such as octanol and nonanol, or silica. In both cases, the function of the anti-foam agent is to displace the surfactant from the air-water interface.

"Green" agents (e.g., adjuvants, surfactants, solvents) can reduce the overall environmental footprint of crop protection formulations. Green agents are biodegradable and generally derived from natural and/or sustainable sources, e.g., plant and animal sources. Specific examples are: vegetable oils, seed oils, and esters thereof, also alkoxylated alkyl polyglucosides.

In some instances, the bacterial colonization-disrupting agent can be freeze-dried or lyophilized. See U.S. Pat. No. 4,311,712. The bacterial colonization-disrupting agent can later be reconstituted on contact with water or another liquid. Other components can be added to the lyophilized or reconstituted, for example, other agricultural agents, agriculturally acceptable carriers, or other materials in accordance with the formulations described herein.

Other optional features of the composition include carriers or delivery vehicles that protect the bacterial colonization-disrupting agent against UV and/or acidic conditions. In some instances, the delivery vehicle contains a pH buffer. In some instances, the composition is formulated to have a pH in the range of about 4.5 to about 9.0, including for example pH ranges of about any one of 5.0 to about 8.0, about 6.5 to about 7.5, or about 6.5 to about 7.0.

In some instances, the composition includes a bait. The bait can be in any suitable form, such as a solid, paste, pellet or powdered form. The bait can also be carried away by the insect back to a population of said insect (e.g., a colony or hive). The bait can then act as a food source for other members of the colony, thus providing an effective amount of a bacterial colonization-disrupting agent for a large number of insects and potentially an entire insect colony.

The baits can be provided in a suitable "housing" or "trap." Such housings and traps are commercially available and existing traps can be adapted to include the compositions described herein. The housing or trap can be box-shaped for example, and can be provided in pre-formed condition or can be formed of foldable cardboard for example. Suitable materials for a housing or trap include plastics and cardboard, particularly corrugated cardboard. The inside surfaces of the traps can be lined with a sticky substance in order to restrict movement of the insect once inside the trap. The housing or trap can contain a suitable trough inside which can hold the bait in place. A trap is distinguished from a housing because the insect cannot readily leave a trap following entry, whereas a housing acts as a "feeding station" which provides the insect with a preferred environment in which they can feed and feel safe from predators.

In some instances, the composition includes an attractant (e.g., a chemoattractant). The attractant may attract an adult insect or immature insect (e.g., larva) to the vicinity of the composition. Attractants include pheromones, a chemical that is secreted by an animal, especially an insect, which influences the behavior or development of others of the same species. Other attractants include sugar and protein hydrolysate syrups, yeasts, and rotting meat. Attractants also can be combined with an active ingredient and sprayed onto foliage or other items in the treatment area.

Various attractants are known which influence insect behavior as an insect's search for food, oviposition or mating sites, or mates. Attractants useful in the methods and compositions described herein include, for example, eugenol, phenethyl propionate, ethyl dimethylisobutyl-cyclopropane carboxylate, propyl benzodioxanecarboxylate, cis-7,8-epoxy-2-methyloctadecane, trans-8,trans-0-dodecadienol, cis-9-tetradecenal (with cis-11-hexadecenal), trans-11-tetradecenal, cis-11-hexadecenal, (Z)-11,12-hexadecadienal, cis-7-dodecenyl acetate, cis-8-dodecenyl acetate, cis-9-dodecenyl acetate, cis-9-tetradecenyl acetate, cis-11-tetradecenyl acetate, trans-11-tetradecenyl acetate (with cis-11), cis-9,trans-11-tetradecadienyl acetate (with cis-9,trans-12), cis-9,trans-1 2-tetradecadienyl acetate, cis-7,cis-11-hexadecadienyl acetate (with cis-7,trans-11), cis-3,cis-13-octadecadienyl acetate, trans-3,cis-13-octadecadienyl acetate, anethole and isoamyl salicylate. Additionally, means other than chemoattractants may also be used to attract insects, including lights in various wavelengths or colors.

The bacterial colonization-disrupting agent can also be incorporated into the medium in which the insect grows, lives, reproduces, feeds, or infests. For example, a bacterial colonization-disrupting agent can be incorporated into a food container, feeding station, protective wrapping, or a hive. For some applications the bacterial colonization-disrupting agent may be bound to a solid support for application in powder form or in a trap or feeding station. As an example, for applications where the composition is to be used in a trap or as bait for a particular insect, the compositions may also be bound to a solid support or encapsulated in a time-release material. In some instances, the bacterial colonization-disrupting agent is formulated in a fog, smoke, or other treatment suitable for application to an insect habitat.

In formulations and in the use forms prepared from these formulations, the bacterial colonization-disrupting agent may be in a mixture with other agricultural agents or otherwise applied in coincidence with other agricultural agents, such as pesticidal agents (e.g., insecticides, antihelminthics, sterilants, acaricides, nematocides, molluscicides, or fungicides), attractants, plant growth-regulating substances, pollen, sucrose, fertilizers, plant growth regulators, safeners, semiochemicals, or herbicides.

For further information on agricultural formulations, see "Chemistry and Technology of Agrochemical Formulations" edited by D. A. Knowles, copyright 1998 by Kluwer Academic Publishers. Also see "Insecticides in Agriculture and Environment—Retrospects and Prospects" by A. S. Perry, I. Yamamoto, I. Ishaaya, and R. Perry, copyright 1998 by Springer-Verlag.

EXAMPLES

The following is an example of the methods of the invention. It is understood that various other embodiments may be practiced, given the general description provided above.

Example 1: Disruption of gut symbiont colonization in insects by altering symbiont cell wall properties

This Example demonstrates the disruption of colonization of the gut symbiont *Burkholderia* in a hemipteran insect, the bean bug (*Riptortus pedestris*), to decrease insect fitness through the administration of polyhydroxyalkanoate (PHA) synthesis inhibitors. The bean bug *R. pedestris* (Hemiptera: Heteroptera: Coreoidea) is a notorious pest of leguminous crops, such as soy-bean and cowpea.

Experimental design:

Insect rearing and Burkholderia infection

The *R. pedestris* bean bugs are reared in the insect incubator at 28°C under a long-day condition of 16 h light and 8 h dark. Briefly, nymphs are reared in clean plastic containers supplied with soybean seeds and distilled water containing 0.05% ascorbic acid (DWA). The plastic containers are cleaned every day, and the soybean seeds and DWA are changed with fresh ones every 2 days. When the insects emerge as adults, they are transferred to larger plastic containers with soybean seeds and DWA. In addition, cotton pads are attached to the walls of the plastic containers for egg laying. Eggs are collected every day and transferred to new cages for hatching. When newborn nymphs molt to second-instar nymphs, DWA containing 10^7 cells/ml cultured *Burkholderia* is provided for the colonization of *Burkholderia* in a small petri dish. *Burkholderia* symbiont used is a rifampicin-resistant (Rfr) spontaneous mutant strain RPE75.

Administration of Burkholderia cultured with PHA synthesis inhibitor vanillin

A PHA synthesis inhibitor, vanillin is purchased from Sigma-Aldrich (Cat no. V1104-2G). The working concentration of vanillin made in the YG medium is 1g/ml. The symbiont strain is grown to an early log phase in YG medium (containing rifampicin at 50 ug/ml) on a gyratory shaker (150 rpm) at 30 °C. For the positive control *Burkholderia* is cultured in YG medium only. Colony-forming unit (CFU)

values are estimated by plating the culture media on YG agar plates containing adequate antibiotics. Symbiont cells are harvested by centrifuging the culture media, suspended in DWA and adjusted to 10^4 CFU/mL in DWA.

Immediately after first instar nymphs molt to the second instar, DWA is removed from the rearing containers so that the nymphs are kept without drinking water overnight. Then, DWA containing 10^4 CFU/mL symbiont cells is supplied to the rearing containers for 24 h, which the second instar nymphs can immediately exploit to acquire the *Burkholderia* symbionts cultured with PHA synthase inhibitors or the positive control *Burkholderia* cultured in YG medium only. Then, the symbiont-containing DWA is replaced by symbiont-free DWA, and the nymphs are reared to adulthood.

Direct feeding of PHA synthesis inhibitor vanillin to R. pedestris

The vanillin working solution (1g/ml) is made from the stock solution into the distilled water. The vanillin working solution is dispensed into a feeding tube and put into the plastic rearing container for bean bug feeding. Immediately after first instar nymphs molt to the second instar, DWA is removed from the rearing containers so that the nymphs are kept without drinking water overnight. The following day, the vanillin solution along with 10^4 CFU/mL symbiont cells is supplied to the rearing containers for 24 h, which the second instar nymphs can immediately exploit to acquire the PHA synthase inhibitor vanillin and *Burkholderia* symbionts. The positive controls are the nymphs fed with 10^4 CFU/mL symbiont cells only. Then, the symbiont-containing DWA is replaced by DWA, and the nymphs are reared to adulthood.

Quantification of Burkholderia colonized in R. pedestris midgut by qPCR

Quantitative PCR (qCPR) is performed using iTaq SYBR green (Biorad) and Applied Biosystems QuantStudio 7 Flex QPCR system (Thermo Fisher) with primers BSdnaA-F and BSdnaA-R targeting a 0.15 kb region of the dnaA gene of the Burkholderia symbiont as described in (Kikuchi et al. 2011; Kikuchi and Fukatsu, 2014). Total DNA is extracted from M4 and M4B parts by using the Blood & Cell Culture DNA Mini Kit (Qiagen, Cat number 13323). and the extracted DNA is eluted in 200 μ L water. Each of the PCR mixtures contains 10 μ L in volume. qPCR is performed using a qPCR amplification ramp of 1.6 degrees C/s and the following conditions: 1) 95°C for 10 minutes, 2) 95°C for 15 seconds, 3) 60°C for 30 seconds, 4) repeat steps 2-3 40x, 5) 95°C for 15 seconds, 6) 60°C for 1 minute, 7) ramp change to 0.15 degrees C/s, 8) 95°C for 1 second. A standard curve for the dnaA gene is generated with standard samples of the target PCR fragment amplified with the primers BSdnaA-F and BSdnaA-R. qPCR data is analyzed using analytical software (Thermo Fisher Scientific, QuantStudio Design and Analysis).

Measurement of R. pedestris fitness

The survival rates after administration of *Burkholderia* cultured with PHA synthase inhibitor vanillin or direct feeding of vanillin to the second-instar nymphs and both positive controls are estimated every day until 25 days after hatching by counting the dead insects. The adult emergence rate is estimated by counting the newly molted adult insects from the late-fifth-instar nymphs. To measure the body length and weight, adult insects (3 days after molting) are sacrificed by submerging in acetone for 5

min and are dried completely in a 70°C oven for 30 min. Soybean seeds are not supplied to insects 24 h before sacrificing to exclude the weight of the soybean.

In comparison with the positive controls of *R. pedestris* fed with *Burkholderia* cultured in YG medium only and direct feeding of *Burkholderia* only, the titers of *Burkholderia* in the midgut of

R. pedestris offspring are expected to be reduced by either administration of *Burkholderia* cultured with vanillin or direct feeding of vanillin to *R. pedestris*.

Example 2: Disruption of symbiont colonization in insects by administration of sugar analogs

This example demonstrate the disruption of *Burkholderia* colonization in a hemipteran model, the bean bug, *Riptortus pedestris* to decrease fitness in the insect through the administration of sugar analogs, ADP-2-fluoroheptose (AFH) and 2-aryl-5-methyl-4-(5-aryl-furan-2-yl-methylene)-2,4-dihydro-pyrazol-3-ones (DHPO).

Experimental design:

Insect rearing and *Burkholderia* infection

The *R. pedestris* bean bugs are reared in the insect incubator at 28°C under a long-day condition of 16 h light and 8 h dark. Briefly, nymphs are reared in clean plastic containers supplied with soybean seeds and distilled water containing 0.05% ascorbic acid (DWA). The plastic containers are cleaned every day, and the soybean seeds and DWA are changed with fresh ones every 2 days. When the insects emerge as adults, they are transferred to larger plastic containers with soybean seeds and DWA. In addition, cotton pads are attached to the walls of the plastic containers for egg laying. Eggs are collected every day and transferred to new cages for hatching. When newborn nymphs molted to second-instar nymphs, DWA containing 10⁷ cells/ml cultured *Burkholderia* is provided for the colonization of *Burkholderia* in a small petri dish. *Burkholderia* symbiont is a rifampicin-resistant (Rfr) spontaneous mutant strain RPE75.

Administration of *Burkholderia* cultured with sugar analogs

Two sugar analogs, ADP-2-fluoroheptose (AFH) (Dohi et al., 2008, Chemistry 14, 9530-9539) and 2-aryl-5-methyl-4-(5-aryl-furan-2-yl-methylene)-2,4-dihydro-pyrazol-3-ones (DHPO) (Moreau et al., 2008, Bioorg. Med. Chem. Lett. 18, 4022-4026) inhibiting L-Heptoses synthesis are synthesized by CRO. The working concentration of AHF and DHPO made in the YG medium is 1g/ml. The symbiont strain is grown to an early log phase in YG medium (containing rifampicin at 50 ug/ml) on a gyratory shaker (150 rpm) at 30°C. The positive control of *Burkholderia* is cultured in YG medium only. Colony-forming unit (CFU) values are estimated by plating the culture media on YG agar plates containing adequate antibiotics. Symbiont cells are harvested by centrifuging the culture media, suspended in DWA and adjusted to 10⁴ CFU/mL in DWA.

Immediately after first instar nymphs molt to the second instar, DWA is removed from the rearing containers so that the nymphs are kept without drinking water overnight. Then, DWA containing 10⁴ CFU/mL symbiont cells is supplied to the rearing containers for 24 h, which the second instar nymphs can immediately exploit to acquire the *Burkholderia* symbionts cultured with AHF or DHPO or the positive

control *Burkholderia* cultured in YG medium only. Then, the symbiont-containing DWA is replaced by symbiont-free DWA, and the nymphs are reared to adulthood.

Direct feeding of sugar analogs to R. pedestris

Two sugar analogs, AFH and DHPO (Moreau et al., 2008. Bioorg. Med. Chem. Lett. 18, 4022-4026) inhibiting L-Heptoses synthesis are synthesized by CRO. The working solutions (1g/ml) for AFH and DHPO are made from the stock into the distilled water. The two sugar analogs working solution are dispensed into the feeding tube and put into the plastic rearing container for bean bug feeding. Immediately after first instar nymphs molted to the second instar, DWA is removed from the rearing containers so that the nymphs are kept without drinking water overnight. The following day, the vanillin solution along with 10^4 CFU/mL symbiont cells is supplied to the rearing containers for 24 h, which the second instar nymphs immediately exploited, leading to the acquisition of AFH or DHPO and *Burkholderia* symbionts. The positive control is the nymphs fed with 10^4 CFU/mL symbiont cells only. Then, the symbiont-containing DWA is replaced by DWA, and the nymphs are reared to adulthood.

Quantification of Burkholderia colonized in R. pedestris midgut by qPCR

Quantitative PCR (qCPR) is performed using iTaq SYBR green (Biorad) and Applied Biosystems QuantStudio 7 Flex QPCR system (Thermo Fisher) with primers BSdnaA-F and BSdnaA-R targeting a 0.15 kb region of the dnaA gene of the *Burkholderia* symbiont as described (Kikuchi et al. 2011; Kikuchi and Fukatsu, 2014). Total DNA is extracted from M4 and M4B parts by using the Blood & Cell Culture DNA Mini Kit (Qiagen, Cat number 13323). and the extracted DNA is eluted in 200 μ L water. Each of the PCR mixtures contains 10 μ L in volume. qPCR is performed using a qPCR amplification ramp of 1.6 degrees C/s and the following conditions: 1) 95°C for 10 minutes, 2) 95°C for 15 seconds, 3) 60°C for 30 seconds, 4) repeat steps 2-3 40x, 5) 95°C for 15 seconds, 6) 60°C for 1 minute, 7) ramp change to 0.15 degrees C/s, 8) 95°C for 1 second. A standard curve for the dnaA gene is generated with standard samples of the target PCR fragment amplified with the primers BSdnaA-F and BSdnaA-R. qPCR data is analyzed using analytic (Thermo Fisher Scientific, QuantStudio Design and Analysis) software.

Measurement of R. pedestris fitness

The survival rates after administration of *Burkholderia* cultured with AFH or DHPO or direct feeding of AFH or DHPO to the second-instar nymphs and both positive controls are estimated every day until 25 days after hatching by counting the dead insects. The adult emergence rate is estimated by counting the newly molted adult insects from the late-fifth-instar nymphs. To measure the body length and weight, adult insects (3 days after molting) are sacrificed by submerging in acetone for 5 min and are dried completely in a 70°C oven for 30 min. Finally, all fitness parameters are recorded. Soybean seeds are not supplied to insects 24 h before sacrificing to exclude the weight of the soybean.

In comparison with the positive controls of *R. pedestris* fed with *Burkholderia* cultured in YG medium only and direct feeding of *Burkholderia* only, the titers of *Burkholderia* in the midgut of *R. pedestris* offspring are expected to be reduced by either administration of *Burkholderia* cultured with two sugar analogs, AFH and DHPO, or direct feeding of AFH and DHPO to *R. pedestris*.

Example 3: Disruption of symbiont colonization in stink bugs using sugar analogs

This example describes disruption of the gut symbiont *Candidatus Pantoea carbekii* colonization in the hemipteran brown marmorated stink bug, *Halyomorpha halys* (Stål) to decrease insect fitness by administration of sugar analogs.

Experimental design:

Identification of genes required for synthesizing core oligosaccharides of Candidatus Pantoea carbekii

By searching the *Candidatus Pantoea carbekii* genome (AB012554.1) in Genbank, four genes for synthesizing core oligosaccharide have been identified (Table 9). The identification of these four genes suggests the *P. carbekii* synthesizes the core oligosaccharide on its cell surface. In addition, these four genes share high similarity to the genes in the core oligosaccharide pathways of the gut symbiont *Burkholderia* from the bean bug, *Riptortus pedestris*.

Table 9: Core oligosaccharide-related genes from the symbiont *Candidatus Pantoea carbekii* in the brown marmorated stink bug, *Halyomorpha halys*.

Essential enzymes for synthesis of core oligosaccharide	Gene ID	Gene location in <i>Candidatus Pantoea carbekii</i> genome (AB012554.1)
WaaA	<i>KdtA</i>	126758 to 128047
WaaC	<i>RfaC</i>	130803 to 131774
WaaF	<i>RfaF</i>	131780 to 132826
WaaG	<i>RfaG</i>	128127 to 129263

Halyomorpha halys lab colony rearing and maintenance

Halyomorpha halys no-diapause lab colony is originally from Phillip Alampi Beneficial Insect Laboratory, New Jersey Department of Agriculture, and is maintained in rearing cages (299 cm cube with 24 by 24 mesh, BioQuip Products, Rancho Dominguez, CA) in the laboratory. They are held in a growth chamber (28 °C, 60-70% relative humidity, and a photoperiod of 16:8 [L:D] h) and are provided diet that included green beans and egg based artificial diet. A green bean plant and *Euonymus japonicus* plant are provided in the cage for *H. halys* oviposition and resting, respectively.

Administration sugar analogs by spraying on egg masses of Halyomorpha halys

The working concentrations AHF and DHPO are 100 µg/ml in water. A total of 30 egg masses on leaf disks are removed from the colony in a single day during peak egg production. There are two sugar analogs, AHF and DHPO treatments and a water-sprayed negative control, each containing 10 egg masses are setup in a petri dish. Ten egg masses are laid face-up in each of the deep petri dish (15 mm x 100 mm). AHF, DHPO or the water (negative control) are applied on the egg masses (1 ML per petri dish) using a Master Airbrush Brand Compressor Model C-16-B Black Mini Airbrush Air Compressor. The

compressor is cleaned with ethanol before, after, and between treatments. The liquid is feed through the compressor using a quarter inch tube. A new tube is used for each treatment.

Measurement of Halyomorpha halys fitness and fecundity

The sprayed egg masses are reared under the same conditions as in the laboratory colony rearing section above. The number of hatched eggs is recorded for each egg mass and then averaged over all masses per replicate. The newly hatched nymphs in each container are reared to determine the number surviving to the second instar. The survival rate of the nymphs at each stadium is estimated every day until 25 days after hatching by counting the dead insects. The adult emergence rate is estimated by counting the newly molted adult insects from the late-fifth-instar nymphs. To measure the body length and weight, adult insects (3 days after molting) are sacrificed by submerging in acetone for 5 min and dried completely in a 70°C oven for 30 min. Finally, all fitness parameters are recorded. Green beans are not supplied to insects 24 h before sacrificing to exclude the weight of the diet.

Quantification of Candidatus Pantoea carbekii titers by qPCR

Total DNA is extracted from M4 and M4B parts of midgut by using the Blood & Cell Culture DNA Mini Kit (Qiagen, Cat number 13323) .and the extracted DNA is eluted in 200 µL water. Quantitative PCR (qCPR) is performed using iTaq SYBR green (Biorad) and Applied Biosystems QuantStudio 7 Flex QPCR system (Thermo Fisher) with primers (forward: GCATATAAAGATTTTACTCTTTAGGTGGC (SEQ ID NO: 5) and reverse: CTCGAAAGCACCAATCCATTCT (SEQ ID NO: 6)) (Bansal et al. 2014). Two control primers for stink bug mitochondrial DNA are used (forward: CGAATCCCATTGTTTGTGTG (SEQ ID NO: 7) and reverse: AGGGTCTCCTCCTCCTGATG (SEQ ID NO: 8) (Bansal et al. 2014). Each of the PCR mixtures contains 10 µL in volume. qPCR is performed using a qPCR amplification ramp of 1.6 degrees C/s and the following conditions: 1) 95°C for 10 minutes, 2) 95°C for 15 seconds, 3) 60°C for 30 seconds, 4) repeat steps 2-3 40x, 5) 95°C for 15 seconds, 6) 60°C for 1 minute, 7) ramp change to 0.15 degrees C/s, 8) 95°C for 1 second. qPCR data is analyzed using analytic (Thermo Fisher Scientific, QuantStudio Design and Analysis) software.

In comparison with the negative control offspring hatched from the eggs sprayed with water only, the titers of *P. carbekii* in the midgut of *H. halys* offspring are expected to be reduced by spraying on egg masses with two sugar analogs, AFH and DHPO.

In comparison with the negative control offspring hatched from the eggs sprayed with water only, the fitness and fecundity of *H. halys* offspring are expected to be reduced by spraying on egg masses with two sugar analogs, AFH and DHPO.

Together, the data described in these Examples are expected to demonstrate the ability to kill and decrease the development, reproductive ability, longevity, and/or endogenous bacterial populations, e.g., fitness, of several hemipterans by treating them with colonization disrupting agents using multiple delivery methods.

Below are provided examples demonstrating that reducing the bacterial symbionts *Candidatus Pantoea carbekii* (hereafter referred to as "*P. carbekii*") and *Burkholderia* in their respective hemipteran

insect hosts, the brown marmorated stink bug (*Halyomorpha halys* (Stål)) and the bean bug (*Riptortus pedestris*), reduces the fitness of each insect.

Example 4. Removal of gut symbionts in insects reduces host fitness

This example demonstrates that disruption of colonization of the bacterial symbiont *Candidatus Pantoea carbekii* (hereafter referred to as “*P. carbekii*”) in a hemipteran insect host, the brown marmorated stink bug *Halyomorpha halys* (Stål), reduces the fitness of the host. Developmental stages of *H. halys* are shown in Fig. 8.

Experimental design:

Halyomorpha halys lab colony rearing and maintenance

A *Halyomorpha halys* no-diapause lab colony was obtained from the Phillip Alampi Beneficial Insect Rearing Laboratory (BIRL), State of New Jersey Department of Agriculture. Following receipt from the BIRL, the lab colony was maintained in Thermo Fisher Scientific environmental incubators (24 °C, ambient humidity, and 16:8 [L:D] photoperiod). Adult cages were fed fresh green beans and a seed mixture of peanuts, sunflower seeds, and buckwheat; green beans were changed every other day and the seed mixture was changed weekly. Egg clutches were collected daily from colony cages and placed into hatching containers (all egg clutches into a single container) that contained only 5 mL water tubes (stuffed with cotton). Upon hatching, nymphs were provided diet pellets (*ad libitum*) that contained split pea, almonds, buckwheat, sunflower seeds, wheat germ, ascorbic acid, and Wesson’s salt.

Treatment of eggs to remove symbionts

Four- to five-day-old *H. halys* egg clutches were submerged in absolute (~95%) ethanol for 5 minutes, then submerged in 8% sodium hypochlorite (extra strength bleach) for 45 seconds, and were finally gently rinsed with purified water before being placed on a paper towel to dry. Control eggs were left untreated. To confirm the efficacy of the treatments, DNA was extracted from a subset of treated vs. control nymphs at the 2nd, 3rd, and 4th instars and was screened for the *P. carbekii* symbionts using qPCR, as described below. *P. carbekii* abundance was reduced in the treated group (Fig. 1).

Quantification of P. carbekii titers by RT-qPCR

Total RNA was extracted from nymphs using total RNA isolation and purification kits (both from Thermo Fisher Scientific), and the extracted RNA was eluted in 100 µL water. Quantitative reverse transcription PCR (RT-qPCR) was performed using RT-qPCR kits (Thermo Fisher Scientific) with primers targeting the *P. carbekii* *DNAX* gene (forward primer sequence: TGCAGAAATTTGTGGCGGTG (SEQ ID NO: 1); reverse primer sequence: CGTTGCCTCAGAAAACGGTG (SEQ ID NO: 2)). Primers for the stink bug 60S rRNA gene (forward primer sequence: AACAGGCAAGCTGCTATCTC (SEQ ID NO: 3) and reverse primer sequence: CTGTCCCTTGGTGGTTCTTT (SEQ ID NO: 4)) were used to normalize the bacterial quantities. Each of the PCR mixtures was 10 µL in volume. RT-qPCR was performed using a PCR amplification ramp of 1.6°C/s and the following conditions: 1) 48°C for 30 min; 2) 95°C for 10 minutes; 3) 95°C for 15 seconds; 4) 55°C for 30 seconds; 5) repeat steps 3-4 40x; 6) 95°C for 15

seconds; 7) 55°C for 1 minute; 8) ramp change to 0.15°C/s; 9) 95°C for 1 second. RT-qPCR data was analyzed using analytic software (Thermo Fisher Scientific).

Set-up of replicates and data collection

After egg treatment, eggs were allowed to hatch and develop to the second instar (larvae only require drinking water during this period). For each replicate, ten second instars from each treatment were placed in plastic cages containing a paper towel, water tube, and a green bean; water tubes were changed weekly, and green beans were changed every other day. Total replicates were 28 for the control treatment and 23 for the bleach/ethanol treatment. The number of survivors and the number of insects in each instar were recorded for each replicate daily. Symbiont removal increased the average amount of time between successive developmental instars compared to the control group (Fig. 2A) and increased the average time to adulthood by 6 days (Fig. 2B).

Once nymphs reached adulthood, adults from each treatment group were respectively pooled into large colony cages where the number of adults (male and female), egg masses, and eggs per mass were counted daily.

The average number of eggs in each egg mass was significantly lower for females reared from ethanol-treated and bleached eggs compared to controls (Fig. 4). Table 10 shows a comparison of fecundity in females from the control and bleached groups. Females reared from bleach and ethanol-treated eggs (Bleached) produced 42% fewer egg masses and 48.1% fewer total eggs than controls.

Table 10. Fecundity comparison of treated vs. control adult female *H. halys* individuals.

	Control	Bleached
Total Females *(survived to reproductive maturity)	62 *(48)	58 *(48)
Avg Eggs per mass	24.6	21.1
Total Egg Masses	81	47
* Egg Masses per reproductive Female	* 1.69	* 0.98
Total Eggs	2100	1090
* Eggs per reproductive Female	* 43.75	* 22.7

(*) indicates measures that were averaged from the number of females present when the first eggs were laid (reproductive maturity) in each replicate.

Guts were dissected from *H. halys* individuals of the same age from the bleach/ethanol treatment group or the control group. Gut health was observed to be inferior and the symbiont-containing v4 region of the gut was degenerated in the bleach/ethanol treatment group (Fig. 3A).

Insect size and coloring were observed to differ between *H. halys* individuals of the same age from the bleach/ethanol treatment group or the control group (Fig. 3B).

The width of the pronotum (standard fitness measure for stinkbugs) was measured for all males and females for comparison. Pronotal width was significantly reduced in male and female individuals hatched from bleached eggs (Fig. 3C).

Example 5: Disruption of gut symbiont colonization in insects by altering polyhydroxyalkanoate (PHA) synthesis capability in the symbionts

This example demonstrates the disruption of colonization of the gut symbiont *P. carbekii* in the brown marmorated stink bug (*Halyomorpha halys* (Stål)) through the administration of polyhydroxyalkanoate (PHA) synthesis inhibitors.

Experimental design:

The polyhydroxyalkanoate (PHA) synthesis inhibitors used were vanillin, levulinic acid, acrylic acid (AA), and 2-bromooctanoic acid (2BA).

Halyomorpha halys lab colony rearing and maintenance

A *Halyomorpha halys* no-diapause lab colony was reared as described in Example 4. Egg clutches were collected daily from colony cages and placed into hatching containers (5 egg clutches per container, maximum) that contained 30 mL water tubes (stuffed with cotton), fresh green beans, and a seed mixture of peanuts.

Administration of PHA synthesis inhibitors by egg mass treatment:

Working concentrations of the PHA synthesis inhibitors (vanillin, levulinic acid, acrylic acid (AA), and 2-bromooctanoic acid (2BA)) were made up to 100µg/ml in water. The solutions of PHA inhibitors were spiked with a non-ionic wetting solution to a final concentration of 0.025% to increase the wettability and spreading of the agents on the eggs. As a negative control, no agents were added to the 0.025% non-ionic wetting solution, and as a positive control, 100µg/ml of the antibiotic rifamycin S was used. Egg masses on leaf disks were removed from the colony in a single day during peak egg production. Each egg mass was then placed in a container with a paper towel at the bottom, and a tube of water plugged with cotton was provided as a water source for the hatchlings. 100µl of the agent was pipetted onto the eggs to wet them completely. This allowed the agent to interact directly with the bacteria before the bacteria was able to colonize the host. Once the 1st instar hatchlings molted to the 2nd instar stage, food was provided in the form of 500mg diet pellets (see "*Halyomorpha halys lab colony rearing and maintenance*" above). Late 2nd instars were collected and frozen to extract DNA to assay for the symbiont levels, as described in Example 4.

Results

The levels of *P. carbekii* were significantly lower in the positive control (Rifamycin S) compared to the negative (water) control. All the four PHA inhibitors (vanillin, levulinic acid, acrylic acid (AA), and 2-bromooctanoic acid (2BA)) used caused a reduction in the symbiont levels per host relative to the water control (Fig. 5).

Based on the results from Example 4 showing decreased fitness in *H. halys* having reduced colonization by *P. carbekii*, the lower levels of the symbionts may lead to decreased fitness in the PHA inhibitor-treated insects. PHA synthase inhibitors are taken as being useful in the invention.

Example 6. Disruption of gut symbiont colonization in insects by altering the biosynthesis of cell wall components in the symbionts

This example demonstrates the disruption of colonization of the gut symbiont *P. carbekii* in the brown marmorated stink bug, *Halyomorpha halys* (Stål), through the administration of a UppP inhibitor, bacitracin.

Experimental design

Halyomorpha halys lab colony rearing and maintenance

A *Halyomorpha halys* no-diapause lab colony was reared as described in Example 4. Egg clutches were collected daily from colony cages and placed into hatching containers (5 egg clutches per container, maximum) that contained 30 mL water tubes (stuffed with cotton), fresh green beans, and a seed mixture of peanuts.

Administration of a UppP inhibitor by egg mass treatment

A working concentration of bacitracin was made up to 100µg/ml in water and spiked with Silwet® L-77 to a final concentration of 0.025% to increase the wettability and spreading of the agents on the eggs. As a negative control, no agents were added to the wetting solution, and as a positive control, 100µg/ml of the antibiotic rifamycin S was used. Egg masses on leaf disks were removed from the colony in a single day during peak egg production. Each egg mass was then placed in a container with a paper towel at the bottom, and a tube of water plugged with cotton was provided as a water source for the hatchlings. 100µl of the agent was pipetted onto the eggs to wet them completely. This allowed the agent to interact directly with the bacteria before the bacteria was able to colonize the host. Once the 1st instar hatchlings molted to the 2nd instar stage, food was provided in the form of 500mg pellets of the artificial diet described above. The same food was provided to the 2nd instars until they molted to the 3rd instar stage. The third instars were collected and frozen to extract DNA to assay for the symbiont levels, as described in Example 4.

Results

The levels of *P. carbekii* were significantly lower in the positive control (Rifamycin S) and the bacitracin treatment group compared to the negative control (Fig. 6). Based on the results from Example 4 showing decreased fitness in *H. halys* having reduced colonization by *P. carbekii*, the lower levels of the symbionts may lead to decreased fitness in the UppP inhibitor-treated insects. UppP inhibitors are taken as being useful in the invention.

Example 7. Disruption of gut symbiont colonization in insects by interfering with the flagellar machinery in the symbionts

This example demonstrates the disruption of colonization of the gut symbiont *P. carbekii* in a hemipteran insect host, the brown marmorated stink bug (*Halyomorpha halys* (Stål)), through the administration of a flagellar function inhibitor, cellulose.

*Experimental design**Halyomorpha halys lab colony rearing and maintenance*

A *Halyomorpha halys* no-diapause lab colony was reared as described in Example 4. Egg clutches were collected daily from colony cages and placed into hatching containers (5 egg clutches per container, maximum) that contained 30 mL water tubes (stuffed with cotton), fresh green beans, and a seed mixture of peanuts.

Administration of flagellar function inhibitors by egg mass treatment

A working concentration of cellulose was made up to 100 µg/ml in water. The solution of cellulose was spiked with a non-ionic wetting solution to a final concentration of 0.025% to increase the wettability and spreading of the agent on the eggs. As a negative control, no agents were added to the wetting solution, and as a positive control, 100µg/ml of the antibiotic rifamycin S was used. Egg masses on leaf disks were removed from the colony in a single day during peak egg production. Each egg mass was then placed in a container with a paper towel at the bottom, and a tube of water plugged with cotton was provided as a water source for the hatchlings. 100 µl of the agent was pipetted onto the eggs to wet them completely. This allowed the agent to interact directly with the bacteria even before the bacteria is able to colonize the host. Once the 1st instar hatchlings molted to 2nd instar stage, food was provided in the form of 500mg pellets of the artificial diet described above. The same food was provided to the 2nd instars until they molted to the 3rd instar stage. The third instars were collected and frozen to extract DNA to assay for the symbiont levels, as described in Example 4.

Results

The levels of *P. carbekii* were significantly lower in the positive control (Rifamycin S) and in the cellulose treatment group compared to the negative control (Fig. 7). The bacterial flagellar function inhibitor used caused a reduction in the symbiont levels per host. Based on the results from Example 4 showing decreased fitness in *H. halys* having reduced colonization by *P. carbekii*, the lower levels of the symbionts may lead to decreased fitness in the bacterial flagellar function inhibitor-treated insects. Flagellar function inhibitors are taken as being useful in the invention.

Example 8. Disruption of symbiont colonization in stink bugs using sugar analogs

This example describes disruption of the gut symbiont *P. carbekii* colonization in the hemipteran brown marmorated stink bug, *Halyomorpha halys* (Stål) by administration of sugar analogs. This example is provided to evaluate the ability of sugar analogs to kill and decrease the development, reproductive ability, longevity and endogenous bacterial populations, e.g., fitness, of a hemipteran insect.

*Experimental design**Identification of genes required for synthesizing core oligosaccharides of P. carbekii*

By searching the *P. carbekii* genome (AB012554.1) in Genbank, four genes for synthesizing core oligosaccharide have been identified (Table 11). The identification of these four genes suggests that *P. carbekii* could synthesize the core oligosaccharide on its cell surface. These data provide the grounds for

disrupting *P. carbekii* colonization in *Halyomorpha halys* by inhibiting the core oligosaccharide synthesis process via administration of sugar analogs.

Table 11. Core oligosaccharide-related genes from the symbiont *Candidatus Pantoea carbekii* in the brown marmorated stink bug, *Halyomorpha halys*

Essential enzymes for synthesis of core oligosaccharide	Gene ID	Gene location in <i>Candidatus Pantoea carbekii</i> genome (AB012554.1)
WaaA	<i>KdtA</i>	126758 to 128047
WaaC	<i>RfaC</i>	130803 to 131774
WaaF	<i>RfaF</i>	131780 to 132826
WaaG	<i>RfaG</i>	128127 to 129263

Halyomorpha halys lab colony rearing and maintenance

A *Halyomorpha halys* no-diapause lab colony is obtained as described in Example 4. Following receipt from the BIRL, the insects are held in a growth chamber as described above and are provided a pellet diet. A green bean plant and a *Euonymus japonicus* plant are provided in the cage for *H. halys* oviposition and resting, respectively.

Administration of sugar analogs by spraying on egg masses of Halyomorpha halys

Two sugar analogs, ADP-2-fluoroheptose (AFH) (Dohi et al., *Chemistry*, 14(31): 9530-9539, 2008) and 2-aryl-5-methyl-4-(5-aryl-furan-2-yl-methylene)-2,4-dihydro-pyrazol-3-ones (DHPO) (Moreau et al., *Bioorg. Med. Chem. Lett.*, 18(14): 4022-4026, 2008), which inhibit the function of WaaC (heptosyl transferase), are synthesized by a Contract Research Organization (CRO).

The working concentrations of AFH and DHPO are 100 µg/ml in water. A total of 30 egg masses on leaf disks are removed from the colony in a single day during peak egg production. Ten egg masses are laid face-up in each well of a deep petri dish (15 mm x 100 mm). AFH, DHPO or water (negative control) are applied on the egg masses (1 mL per petri dish) using a Master Airbrush Brand Compressor Model C-16-B Black Mini Airbrush Air Compressor. The compressor is cleaned with ethanol before, after, and between treatments. The liquid is fed through the compressor using a quarter inch tube. A new tube is used for each treatment.

Measurement of Halyomorpha halys fitness and fecundity

The sprayed egg masses are reared under the conditions described above. The number of hatched eggs is recorded for each egg mass and then averaged over all masses per replicate. The newly hatched nymphs in each container are reared to determine the number surviving to the second instar. The survival rate of the nymphs at each stadium is estimated every day until 25 days after hatching by counting the dead insects. The adult emergence rate is estimated by counting the newly molted adult insects from the late-fifth-instar nymphs. To measure the body length and weight, adult insects (3 days after molting) are sacrificed by submerging in acetone for 5 min and dried completely in a 70°C oven for 30 min. Finally, all fitness parameters are recorded. Green beans are not supplied to insects 24 h before sacrificing to exclude the weight of the diet.

Quantification of P. carbekii titers by RT-qPCR

Total RNA is extracted from nymphs using RNA isolation and purification kits (both from Thermo Fisher Scientific), and the extracted RNA is eluted in 100 µL water. Quantitative reverse transcription PCR (RT-qCPR) is performed using a RT-qPCR kit (Thermo Fisher Scientific) with primers targeting the *P. carbekii* *DNAK* gene (forward primer sequence: TGCAGAAATTTGTGGCGGTG (SEQ ID NO: 1); reverse primer sequence: CGTTGCCTCAGAAAACGGTG (SEQ ID NO: 2)). Primers for the stink bug 60S rRNA gene (forward primer sequence: AACAGGCAAGCTGCTATCTC (SEQ ID NO: 3) and reverse primer sequence: CTGTCCCTTGGTGGTTCTTT (SEQ ID NO: 4)) are used to normalize the bacterial quantities. Each of the PCR mixtures is 10 µL in volume. RT-qPCR is performed using a PCR amplification ramp of 1.6°C/s and the following conditions: 1) 48°C for 30 min; 2) 95°C for 10 minutes; 3) 95°C for 15 seconds; 4) 55°C for 30 seconds; 5) repeat steps 3-4 40x, 6); 95°C for 15 seconds; 7) 55°C for 1 minute; 8) ramp change to 0.15°C/s; 9) 95°C for 1 second. RT-qPCR data is analyzed using analytic software (Thermo Fisher Scientific).

Sugar analogs reducing the fitness or fecundity or both of *H. halys* offspring, in view of appropriate controls, are taken as useful in the invention.

Example 9. Disruption of gut symbiont colonization in the bean bug, *Riptortus pedestris*, by altering symbionts' cell wall properties

This example demonstrates the disruption of colonization of the gut symbiont *Burkholderia* in a hemipteran insect, the bean bug (*Riptortus pedestris*) through the administration of the polyhydroxyalkanoate (PHA) synthesis inhibitor vanillin or a vanillin analog. This example is provided to evaluate the ability of this disruption to cause a fitness decrease in the insect.

The bean bug *R. pedestris* (Hemiptera: Heteroptera: Coreoidea) is a notorious pest of leguminous crops, such as soy-bean and cowpea. *R. pedestris* harbors a specific gut symbiont of the genus *Burkholderia*, which is acquired orally from the environment by second-instar nymphs. Bean bugs have a specialized symbiotic organ (crypts) in a posterior midgut fourth region (M4) to host the symbionts.

*Experimental design:**Insect rearing and Burkholderia infection*

The *R. pedestris* bean bugs are reared in an insect incubator at 28°C under a long-day condition of 16 h light and 8 h dark. Briefly, nymphs are reared in clean plastic containers supplied with soybean seeds and distilled water containing 0.05% ascorbic acid (DWA). The plastic containers are cleaned every day, and the soybean seeds and DWA are changed with fresh ones every 2 days. When the insects emerge as adults, they are transferred to larger plastic containers with soybean seeds and DWA. In addition, cotton pads are attached to the walls of the plastic containers for egg laying. Eggs are collected every day and transferred to new cages for hatching. When newborn nymphs molt to second-instar nymphs, DWA containing 10⁷ cells/ml cultured *Burkholderia* is provided in a small petri dish for the colonization by *Burkholderia* of the bean bugs. The *Burkholderia* symbiont used is the rifampicin-resistant

(Rfr) spontaneous mutant strain RPE75 (provided by Dr. Takema Fukatsu, National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba Center, Tsukuba, Japan).

Administration of Burkholderia cultured with PHA synthesis inhibitor vanillin

A PHA synthesis inhibitor, vanillin, is purchased from Sigma-Aldrich (Cat. no. V1104-2G). A working concentration of vanillin is made at 1g/ml in YG medium (0.5% yeast extract, 0.4% glucose, and 0.1%NaCl). The symbiont strain is grown to an early log phase in YG medium (containing rifampicin at 50 µg/ml) on a gyratory shaker (150 rpm) at 30°C. For the positive control, *Burkholderia* is cultured in YG medium only. Colony-forming unit (CFU) values are estimated by plating the culture media on YG agar plates containing adequate antibiotics. Symbiont cells are harvested by centrifuging the culture media, suspended in DWA, and adjusted to 10⁴ CFU/mL in DWA.

Immediately after first instar nymphs molt to the second instar, DWA is removed from the rearing containers so that the nymphs are kept without drinking water overnight. Then, DWA containing 10⁴ CFU/mL symbiont cells is supplied to the rearing containers for 24 h, which the second instar nymphs can exploit to acquire the *Burkholderia* symbionts cultured with PHA synthase inhibitors or the positive control *Burkholderia* cultured in YG medium only. Then, the symbiont-containing DWA is replaced by symbiont-free DWA, and the nymphs are reared to adulthood.

Direct feeding of PHA synthesis inhibitor vanillin to R. pedestris

Immediately after first instar nymphs molt to the second instar, DWA is removed from the rearing containers so that the nymphs are kept without drinking water overnight. The following day, the vanillin solution (1mg/ml) along with 10⁴ CFU/mL symbiont cells is supplied to the rearing containers for 24 h, which the second instar nymphs can exploit to acquire the PHA synthase inhibitor vanillin and *Burkholderia* symbionts. Positive controls are nymphs fed with 10⁴ CFU/mL symbiont cells only. Then, the symbiont-containing DWA is replaced by DWA, and the nymphs are reared to adulthood.

Quantification of Burkholderia colonized in R. pedestris midgut by qPCR

Quantitative PCR (qPCR) is performed using qPCR kits (Thermo Fisher) with primers BSdnaA-F and BSdnaA-R targeting a 0.15 kb region of the dnaA gene of the *Burkholderia* symbiont, as described in (Kikuchi et al., *Applied and Environmental Microbiology*, 77: 4075-4081, 2011; Kikuchi and Fukatsu, *Molecular Ecology*, 23: 1445-1456, 2014). Total DNA is extracted from the M4 and M4B parts of the midgut by using Blood & Cell Culture DNA Mini Kit (Qiagen, Cat number 13323). and the extracted DNA is eluted in 200 µL water. Each of the PCR mixtures contains 10 µL in volume. qPCR is performed using a qPCR amplification ramp of 1.6°C/s and the following conditions: 1) 95°C for 10 minutes; 2) 95°C for 15 seconds; 3) 60°C for 30 seconds; 4) repeat steps 2-3 40x; 5) 95°C for 15 seconds; 6) 60°C for 1 minute; 7) ramp change to 0.15°C/s; 8) 95°C for 1 second. A standard curve for the dnaA gene is generated with standard samples of the target PCR fragment amplified with the primers BSdnaA-F and BSdnaA-R. qPCR data is analyzed using analytical software (Thermo Fisher Scientific).

Measurement of R. pedestris fitness

The survival rates after administration of *Burkholderia* cultured with PHA synthase inhibitor vanillin or direct feeding of vanillin to the second-instar nymphs and both positive controls are estimated every day until 25 days after hatching by counting the dead insects. The adult emergence rate is estimated by counting the newly molted adult insects from the late-fifth-instar nymphs. To measure the body length and weight, adult insects (3 days after molting) are sacrificed by submerging in acetone for 5 min and are dried completely in a 70°C oven for 30 min. Soybean seeds are not supplied to insects 24 h before sacrificing to exclude the weight of the soybean.

Vanillin or analogs thereof which reduce titers of *Burkholderia* in *R. pedestris* offspring, in view of appropriate controls, are taken as useful in the invention.

Example 10. Disruption of symbiont colonization in the bean bug by administration of sugar analogs

This example demonstrates the disruption of *Burkholderia* colonization in a hemipteran model, the bean bug (*Riptortus pedestris*) through the administration of the sugar analogs ADP-2-fluoroheptose (AFH) and 2-aryl-5-methyl-4-(5-aryl-furan-2-yl-methylene)-2,4-dihydro-pyrazol-3-ones (DHPO). This example is provided to evaluate the ability of this disruption to cause a fitness decrease in the insect.

*Experimental design**Insect rearing and Burkholderia infection*

R. pedestris is reared as described in Example 6.

Administration of Burkholderia cultured with sugar analogs

Two sugar analogs, ADP-2-fluoroheptose (AFH) (Dohi et al., *Chemistry*, 14(31): 9530-9539, 2008) and 2-aryl-5-methyl-4-(5-aryl-furan-2-yl-methylene)-2,4-dihydro-pyrazol-3-ones (DHPO) (Moreau et al., *Bioorg. Med. Chem. Lett.*, 18(14): 4022-4026, 2008), which inhibit the function of WaaC (heptosyl transferase), are synthesized by a Contract Research Organization (CRO).

The working concentration of AFH and DHPO made in the YG medium is 1g/ml. The symbiont strain is grown to an early log phase in YG medium (containing rifampicin at 50 µg/ml) on a gyratory shaker (150 rpm) at 30°C. The positive control of *Burkholderia* is cultured in YG medium only. Colony-forming unit (CFU) values are estimated by plating the culture media on YG agar plates containing adequate antibiotics. Symbiont cells are harvested by centrifuging the culture media, suspended in DWA, and adjusted to 10⁴ CFU/mL in DWA.

Immediately after first instar nymphs molt to the second instar, DWA is removed from the rearing containers so that the nymphs are kept without drinking water overnight. Then, DWA containing 10⁴ CFU/mL symbiont cells is supplied to the rearing containers for 24 h, which the second instar nymphs can exploit to acquire the *Burkholderia* symbionts cultured with AFH or DHPO or the positive control *Burkholderia* cultured in YG medium only. Then, the symbiont-containing DWA is replaced by symbiont-free DWA, and the nymphs are reared to adulthood.

Direct feeding of sugar analogs to R. pedestris

AFH and DHPO are synthesized by CRO. The working solutions (1g/ml) for AFH and DHPO are made from the stock into the distilled water. The two sugar analog working solutions are dispensed into the feeding tube and put into the plastic rearing container for bean bug feeding. Immediately after first instar nymphs molt to the second instar, DWA is removed from the rearing containers so that the nymphs are kept without drinking water overnight. The following day, the AFH and DHPO solution along with 10^4 CFU/mL symbiont cells is supplied to the rearing containers for 24 h, which the second instar nymphs can exploit, leading to the acquisition of AFH or DHPO and *Burkholderia* symbionts. The positive control is nymphs fed with 10^4 CFU/mL symbiont cells only. Then, the symbiont-containing DWA is replaced by DWA, and the nymphs are reared to adulthood.

Quantification of Burkholderia colonized in R. pedestris midgut by qPCR

Quantitative PCR (qCPR) is performed as described in Example 6.

Measurement of R. pedestris fitness

The survival rates after administration of *Burkholderia* cultured with AFH or DHPO or direct feeding of AFH or DHPO to the second-instar nymphs and both positive controls are estimated every day until 25 days after hatching by counting the dead insects. The adult emergence rate is estimated by counting the newly molted adult insects from the late-fifth-instar nymphs. To measure the body length and weight, adult insects (3 days after molting) are sacrificed by submerging in acetone for 5 min and are dried completely in a 70°C oven for 30 min. Finally, all fitness parameters are recorded. Soybean seeds are not supplied to insects 24 h before sacrificing to exclude the weight of the soybean.

Sugar analogs reducing titers of *Burkholderia* in *R. pedestris* offspring, in view of appropriate controls, are taken as useful in the invention.

OTHER EMBODIMENTS

Some embodiments of the invention are within the following numbered paragraphs.

1. A method of decreasing the fitness of an insect comprising delivering to the insect an effective amount of a composition comprising a bacterial colonization-disrupting agent.

2. A method of inhibiting bacterial colonization in the gut of an insect comprising delivering to the insect an effective amount of a composition comprising a bacterial colonization-disrupting agent.

3. The method of paragraph 2, wherein the method is effective to increase the fitness of the insect relative to an untreated insect.

4. The method of any one of paragraphs 1-3, wherein the bacterial colonization-disrupting agent is a polyhydroxyalkanoate (PHA) synthesis inhibitor.

5. A method of decreasing the fitness of an insect comprising delivering to the insect an effective amount of a composition comprising a PHA synthesis inhibitor.

6. The method of paragraph 4 or 5, wherein the PHA synthesis inhibitor is vanillin.

7. The method of paragraph 4 or 5, wherein the PHA synthesis inhibitor is one or more compounds in Table 1.

8. The method of paragraph 4 or 5, wherein the PHA synthesis inhibitor is levulinic acid.

9. The method of paragraph 4 or 5, wherein the PHA synthesis inhibitor is acrylic acid.

10. The method of paragraph 4 or 5, wherein the PHA synthesis inhibitor is 2-bromooctanoic acid.

11. The method of any one of paragraphs 1-3, wherein the bacterial colonization-disrupting agent is an inhibitor of bacterial cell envelope biogenesis.

12. The method of paragraph 11, wherein the inhibitor of bacterial cell envelope biogenesis is a lipopolysaccharide (LPS) synthesis inhibitor.

13. A method of decreasing the fitness of an insect comprising delivering to the insect an effective amount of a composition comprising an LPS synthesis inhibitor.

14. The method of paragraph 12 or 13, wherein the LPS synthesis inhibitor is an inhibitor of core oligosaccharide synthesis in the bacteria.

15. The method of paragraph 14, wherein the LPS synthesis inhibitor inhibits an enzyme involved in core oligosaccharide synthesis in the bacteria.

16. The method of paragraph 15, wherein the enzyme has at least 40%, 50%, 60%, 70%, 80%, 90%, 95%, 98%, 99%, or 100% sequence identity to a polypeptide having the amino acid sequence of WaaA, WaaC, WaaF, or WaaG.

17. The method of any one of paragraphs 12-16, wherein the LPS synthesis inhibitor is a sugar.

18. The method of paragraph 17, wherein the sugar is ADP-2-fluoroheptose (AFH).

19. The method of paragraph 17, wherein the sugar is 2-aryl-5-methyl-4-(5-aryl-furan-2-yl-methylene)-2,4-dihydro-pyrazol-3-ones (DHPO).

20. The method of paragraph 17, wherein the sugar is AFH and DHPO.

21. The method of paragraph 17, wherein the sugar is one or more compounds in Table 7.

22. The method of paragraph 14, wherein the LPS synthesis inhibitor inhibits expression of a gene involved in core oligosaccharide synthesis in the bacteria.

23. The method of paragraph 22, wherein the gene has at least 40%, 50%, 60%, 70%, 80%, 90%, 95%, 98%, 99%, or 100% sequence identity to a polynucleotide having the nucleotide sequence of *waaA*, *waaC*, *waaF*, or *waaG*.

24. The method of any one of paragraphs 1-3, wherein the bacterial colonization-disrupting agent is an inhibitor of bacterial cell wall biogenesis.

25. The method of paragraph 24, wherein the inhibitor of bacterial cell wall biogenesis is an inhibitor of undecaprenyl pyrophosphate phosphatase (UppP).

26. The method of paragraph 25, wherein the inhibitor of UppP is bacitracin.

27. The method of any one of paragraphs 1-3, wherein the bacterial colonization-disrupting agent is an inhibitor of flagellar function.

28. The method of paragraph 27, wherein the inhibitor of flagellar function is cellulose.

29. The method of any one of paragraphs 1-28, wherein the insect is a plant pest.

30. The method of paragraph 29, wherein the plant pest is of the order *Coleoptera*, *Diptera*, *Hemiptera*, *Lepidoptera*, *Orthoptera*, *Thysanoptera*, or *Acarina*.

31. The method of paragraph 30, wherein the insect is a stink bug, bean bug, beetle, weevil, fly, aphid, whitefly, leafhopper, scale, moth, butterfly, grasshopper, cricket, thrip, or mite.

32. The method of paragraph 31, wherein the insect is of the genus *Riptortus*.

33. The method of paragraph 32, wherein the insect is of the genus *Halyomorpha*.

34. The method of any one of paragraphs 1-33, wherein the insect is a vector of an animal pathogen and/or a human pathogen.

35. The method of paragraph 34, wherein the insect is a mosquito, a midge, a louse, a sandfly, a tick, a triatomine bug, a tsetse fly, or flea.

36. The method of any one of paragraphs 1-35, wherein the bacteria is an endosymbiotic bacteria.

37. The method of paragraph 36, wherein the endosymbiont resides in the gut of the insect.

38. The method of paragraph 37, wherein the bacteria resides in a specialized cell or a specialized organ in the gut of the insect.

39. The method of paragraph 38, wherein the specialized organ is a midgut crypt or a bacteriome.

40. The method of paragraph 38, wherein the specialized cell is a bacteriocyte.

41. The method of any one of paragraphs 36-40, wherein the endosymbiotic bacteria is of the genus *Burkholderia*.

42. The method of any one of paragraphs 36-40, wherein the endosymbiotic bacteria is of the genus *Pantoea*.

43. The method of any one of paragraphs 1, 2, and 4-41, wherein the method is effective to decrease the fitness of the insect relative to an untreated insect.

44. The method of paragraph 43, wherein the decrease in fitness of the insect is a decrease in reproductive ability, survival, rate of development, number of hatched eggs, adult emergence rate, body length, or weight.

45. The method of any one of paragraphs 1-44, wherein the method is effective to decrease bacterial colonization in the gut of the insect relative to an untreated insect.

46. The method of any one of paragraphs 1-45, wherein the composition is delivered to the insect to at least one habitat where the insect grows, lives, or reproduces.

47. The method of any one of paragraphs 1-46, wherein the composition is a liquid, a solid, an aerosol, a paste, a gel, or a gas composition.

48. The method of any one of paragraphs 1-47, wherein the composition is delivered as an insect comestible composition for ingestion by the insect.

49. The method of any one of paragraphs 1-48, wherein the composition is delivered to eggs of the insect.

50. The method of any one of paragraphs 1-49, wherein the composition is delivered to the insect by ingestion, infusion, injection, or spraying.

51. The method of any one of paragraphs 1-50, wherein the composition comprises an agriculturally acceptable carrier.

52. A modified insect produced by a method comprising contacting the insect with a composition comprising a bacterial colonization-disrupting agent in accordance with the methods of any one of paragraphs 1-51.

53. A screening assay to identify a bacterial colonization-disrupting agent, comprising the steps of

(a) exposing a target insect to one or more agents; and

(b) identifying an agent that:

(i) decreases the fitness of the target insect, and

(ii) inhibits colonization of a bacterium in the gut of the target insect.

54. The assay of paragraph 53, wherein the decrease in fitness is decreased survival of the target insect.

55. The assay of paragraph 53, wherein the decrease in fitness is a decrease in reproductive ability, survival, rate of development, number of hatched eggs, adult emergence rate, body length, or body mass.

56. The assay of any one of paragraphs 53-55, wherein the bacteria is an endosymbiotic bacteria.

57. The assay of paragraph 56, wherein the endosymbiotic bacteria resides in the gut of the insect.

58. The assay of paragraph 57, wherein the bacteria resides in a specialized cell or a specialized organ in the gut of the insect.

59. The assay of paragraph 58, wherein the specialized organ is a midgut crypt or a bacteriome.

60. The assay of paragraph 58, wherein the specialized cell is a bacteriocyte.

61. The assay of any one of paragraphs 53-58, wherein the bacterium is of the genus *Burkholderia*.

62. The assay of any one of paragraphs 53-60, wherein the bacterium is of the genus *Pantoea*.

63. The assay of any one of paragraphs 53-62, wherein the insect is a plant pest.

64. The assay of paragraph 63, wherein the plant pest is of the order *Coleoptera*, *Diptera*, *Hemiptera*, *Lepidoptera*, *Orthoptera*, *Thysanoptera*, or *Acarina*.

65. The assay of any one of paragraphs 53-62, wherein the insect is a vector of an animal pathogen and/or a human pathogen.

66. The assay of paragraph 65, wherein the insect is a mosquito, a midge, a louse, a sandfly, a tick, a triatomine bug, a tsetse fly, or flea.

67. A modified insect produced by a method comprising contacting the insect with a composition comprising a bacterial colonization-disrupting agent identified by the screening assay of any one of paragraphs 53-66.

68. A method of decreasing the fitness of an insect comprising delivering to the insect an effective amount of a composition comprising a bacterial colonization-disrupting agent identified by the screening assay of any one of paragraphs 53-66.

69. A composition comprising a bacterial colonization-disrupting agent and a carrier, wherein the composition is formulated for delivery to an insect, or a habitat thereof.

70. The composition of paragraph 69, wherein the bacterial colonization-disrupting agent is a polyhydroxyalkanoate (PHA) synthesis inhibitor.

71. The composition of paragraph 70, wherein the PHA synthesis inhibitor is vanillin.

72. The composition of paragraph 70, wherein the PHA synthesis inhibitor is one or more compounds in Table 1.

73. The composition of paragraph 70, wherein the PHA synthesis inhibitor is levulinic acid.

74. The composition of paragraph 70, wherein the PHA synthesis inhibitor is acrylic acid.

75. The composition of paragraph 70, wherein the PHA synthesis inhibitor is 2-bromooctanoic acid.

76. The composition of paragraph 69, wherein the bacterial colonization-disrupting agent is an inhibitor of bacterial cell envelope biogenesis.

77. The composition of paragraph 76, wherein the inhibitor of bacterial cell envelope biogenesis is a lipopolysaccharide (LPS) synthesis inhibitor.

78. The composition of paragraph 77, wherein the LPS synthesis inhibitor is an inhibitor of core
5 oligosaccharide synthesis in the bacteria.

79. The composition of paragraph 77 or 78, wherein the LPS synthesis inhibitor inhibits an enzyme involved in core oligosaccharide synthesis in the bacteria.

80. The composition of paragraph 79, wherein the enzyme has at least 40%, 50%, 60%, 70%, 80%,
10 90%, 95%, 98%, 99%, or 100% sequence identity to a polypeptide having the amino acid sequence of WaaA, WaaC, WaaF, or WaaG.

81. The composition of any one of paragraphs 78-80, wherein the LPS synthesis inhibitor is a sugar.
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82. The composition of paragraph 81, wherein the sugar is ADP-2-fluoroheptose (AFH).

83. The composition of paragraph 81, wherein the sugar is 2-aryl-5-methyl-4-(5-aryl-furan-2-yl-
methylene)-2,4-dihydro-pyrazol-3-ones (DHPO).
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84. The composition of paragraph 81, wherein the sugar is AFH and DHPO.

85. The composition of paragraph 81, wherein the sugar is one or more compounds in Table 7.

86. The composition of paragraph 77 or 78, wherein the LPS synthesis inhibitor inhibits expression of
25 a gene involved in core oligosaccharide synthesis in the bacteria.

87. The composition of paragraph 86, wherein the gene has at least 40%, 50%, 60%, 70%, 80%,
30 90%, 95%, 98%, 99%, or 100% sequence identity to a polynucleotide having the nucleotide sequence of *waaA*, *waaC*, *waaF*, or *waaG*.

88. The composition of paragraph 69, wherein the bacterial colonization-disrupting agent is an inhibitor of bacterial cell wall biogenesis.

89. The composition of paragraph 88, wherein the inhibitor of bacterial cell wall biogenesis is an
35 inhibitor of UppP.

90. The composition of paragraph 89, wherein the inhibitor of UppP is bacitracin.

91. The composition of paragraph 69, wherein the bacterial colonization-disrupting agent is an inhibitor of flagellar function.

92. The composition of paragraph 91, wherein the inhibitor of flagellar function is cellulose.

93. The composition of any one of paragraphs 69-92, wherein the bacterial colonization-disrupting agent is at least 0.1%, 0.2%, 0.4%, 0.5%, 0.8%, 1%, 2%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, or 90% of the composition.

94. The composition of any one of paragraphs 69-93, wherein the carrier is a liquid, a solid, an aerosol, a paste, a gel, or a gas composition.

95. The composition of any one of paragraphs 69-93, wherein the carrier is a sugar syrup, corn syrup, or honey.

96. The composition of any one of paragraphs 69-93, wherein the carrier is a nanoparticle or lipid membrane.

97. The composition of any one of paragraphs 69-96, wherein the composition is formulated for delivery to the insect by ingestion, infusion, injection, spraying, smoking, or fogging.

98. The composition of any one of paragraphs 69-97, wherein the composition is formulated for delivery to at least one habitat where the insect grows, lives, reproduces, or feeds.

99. The composition of any one of paragraphs 69-98, wherein the composition is formulated for delivery to a plant ingested by the insect.

100. A method for decreasing colonization by a bacterium of a gut of a stink bug, the method comprising:

(a) providing a composition comprising vanillin or an analog thereof; and
(b) delivering said composition to a stink bug egg, wherein the gut of the stink bug hatched from the egg has decreased colonization by the bacterium relative to the gut of a stink bug hatched from an untreated egg.

101. The method of paragraph 100, wherein the composition is delivered to an egg mass of a stink bug.

102. The method of paragraph 100, wherein the decrease in colonization by the bacterium decreases the fitness of the stink bug.

103. The method of paragraph 102, wherein the decrease in the fitness of the stink bug is a decrease in reproductive ability, survival, rate of development, number of eggs, number of hatched eggs, adult emergence rate, body length, body width, body mass, or cuticle thickness.

5 104. The method of paragraph 100, wherein the colonization is in the v4 region of the gut.

105. The method of paragraph 104, wherein colonization by the bacterium of the v4 region of the gut is decreased by at least 10%.

10 106. The method of paragraph 104, wherein the size of the v4 region of the gut is decreased.

107. The method of paragraph 100, wherein the stink bug is a *Halyomorpha* species.

108. The method of paragraph 107, wherein the stink bug is *Halyomorpha halys*.

15 109. The method of paragraph 100, wherein the bacterium is an endosymbiont.

110. The method of paragraph 109, wherein the endosymbiont is of the genus *Pantoea*.

20 111. The method of paragraph 110, wherein the endosymbiont is *Candidatus Pantoea carbekii*.

112. The method of paragraph 100, wherein the composition is a liquid, a solid, an aerosol, a paste, a gel, or a gas composition.

25 113. The method of paragraph 100, wherein the composition is delivered as a spray.

114. The method of paragraph 100, wherein the composition comprises an agriculturally acceptable carrier.

30 115. The method of paragraph 100, wherein the composition comprises a wetting solution.

Although the foregoing invention has been described in some detail by way of illustration and example for purposes of clarity of understanding, the descriptions and examples should not be construed as limiting the scope of the invention. The disclosures of all patent and scientific literature cited herein
35 are expressly incorporated in their entirety by reference.

What is claimed is:

Claims

1. A method for decreasing colonization by a bacterium of a gut of a stink bug, the method
5 comprising:
 - (a) providing a composition comprising vanillin or an analog of vanillin selected from Table 1; and
 - (b) delivering said composition to a stink bug egg, wherein the gut of the stink bug hatched from the egg has decreased colonization by the bacterium relative to the gut of a stink bug hatched from an untreated egg;
10 wherein the bacterium is *Candidatus Pantoea carbekii*.
2. The method of claim 1, wherein the composition is delivered to an egg mass of a stink bug.
3. The method of claim 1, wherein the decrease in colonization by the bacterium decreases the
15 fitness of the stink bug.
4. The method of claim 3, wherein the decrease in the fitness of the stink bug is a decrease in reproductive ability, survival, rate of development, number of eggs, number of hatched eggs, adult emergence rate, body length, body width, body mass, or cuticle thickness.
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5. The method of claim 1, wherein the colonization is in the v4 region of the gut.
6. The method of claim 5, wherein colonization by the bacterium of the v4 region of the gut is decreased by at least 10%.
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7. The method of claim 5, wherein the size of the v4 region of the gut is decreased.
8. The method of claim 1, wherein the stink bug is a *Halyomorpha* species.
- 30 9. The method of claim 8, wherein the stink bug is *Halyomorpha halys*.
10. The method of claim 1, wherein the composition is a liquid, a solid, an aerosol, a paste, a gel, or a gas composition.
- 35 11. The method of claim 1, wherein the composition is delivered as a spray.
12. The method of claim 1, wherein the composition comprises an agriculturally acceptable carrier.
13. The method of claim 1, wherein the composition comprises a wetting solution.
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