

stabilizers, 5LO inhibitors, leukotriene synthesis and receptor inhibitors, inhibitors of IgE isotype switching or IgE synthesis, IgG isotype switching or IgG synthesis, β -agonists, tryptase inhibitors, acetylosalicylic acid, COX inhibitors, methotrexate, anti-TNF drugs, rituxin and other B-cell targeting agents, THF-targeting agents, PD4 inhibitors, p38 inhibitors, PDE4 inhibitors, and antihistamines.

57. Compound according to any one of claims 1-54 for use as inhibitor of acidic mammalian chitinase in a cell or a tissue.

58. Compound according to any one of claims 1-54 for use as inhibitor of chitotriosidase in a cell or a tissue.

59. Compound according to any one of claims 1-54, or a pharmaceutical composition according to claim 55 for use in the treatment or prevention of a disease, disorder, or condition associated with aberrant expression or activity of acidic mammalian chitinase.

60. Compound according to any one of claims 1-54, or a pharmaceutical composition according to claim 55 for use in the treatment or prevention of a disease, disorder, or condition associated with aberrant expression or activity of chitotriosidase.

61. Compounds according to claim 59 or 60, wherein the disease, disorder, or condition is selected from the group consisting of allergic diseases, acute and chronic inflammatory diseases, autoimmune diseases, dental diseases, neurologic diseases, metabolic diseases, liver diseases, kidney diseases, skin diseases, polycystic ovary syndrome, endometriosis, fibrotic disorders, storage diseases, and cancer.

62. Compounds of claim 61, wherein the disease, disorder, or condition is an allergic disease selected from the group consisting of asthma, allergic rhinitis, seasonal allergic rhinitis, chronic rhinosinusitis with or without nasal polyps, conjunctivitis, keratoconjunctivitis, seasonal allergic conjunctivitis, dry eye syndrome, eosinophilic esophagitis, celiac disease, food allergy, irritable bowel syndrome, irritable bowel disease, atopic eczema, atopic dermatitis, allergic contact dermatitis, eosinophilic otitis media, eosinophilic pneumonia, and IgG4 mediated diseases.
63. Compounds of claim 61, wherein the disease, disorder, or condition is an acute or chronic inflammatory disease selected from the group consisting of fungal diseases, parasitic infections, celiac disease, microscopic colitis, chronic obstructive pulmonary disease (COPD), idiopathic pulmonary fibrosis, interstitial lung diseases, cystic fibrosis, Hermansky-Pudlak syndrome, and Alzheimer's disease.
64. Compounds of claim 61, wherein the disease, disorder, or condition is an autoimmune disorder selected from the group consisting of inflammatory bowel disease, ulcerative colitis, Crohn's disease, rheumatoid arthritis, osteoarthritis, psoriasis, scleroderma, multiple sclerosis, Sjögren's syndrome, atherosclerosis, and sarcoidosis.
65. Compounds of claim 61, wherein the disease, disorder, or condition is periodontitis.
66. Compounds of claim 61, wherein the disease, disorder, or condition is a metabolic disease selected from the group consisting of insulin-dependent diabetes mellitus and non-insulin-dependent diabetes mellitus.
67. Compounds of claim 61, wherein the disease, disorder, or condition is a liver disease selected from the group consisting of non-alcoholic fatty liver disease, non-alcoholic steatohepatitis, hepatitis-C virus-induced fibrosis and cirrhosis, and alcoholic fibrosis.
68. Compounds of claim 61, wherein the disease is cancer selected from the group consisting of glioblastoma, breast cancer, colon cancer, primary and metastatic lung cancer, mesothelioma, osteosarcoma, malignant melanoma, ovarian cancer, cervical cancer, prostate cancer, liver cancer, gastric cancer, metastatic renal cancer, leukemia, and lymphoma.

69. Compounds of claim 61, wherein the disease is a kidney disease selected from the group consisting of nephropathy (e.g., diabetic nephropathy), focal segmental glomerulosclerosis, tubulointerstitial fibrosis, postransplant fibrosis, and retroperitoneal fibrosis (Ormond's disease).
70. Compounds of claim 61, wherein the disease is a fibrotic disorder.
71. Compounds of claim 70, wherein the fibrotic disorder is idiopathic pulmonary fibrosis (IPF).
72. Compounds of claim 61, wherein the disease is a storage disease selected from the group consisting of Gaucher disease, Fabry disease, lysosomal storage disorders, Niemann-Pick disease, nephropathic cysteinosis, and X-linked globotriaosylceramidosis.
73. Compound according to any one of claims 1-54 for use as inhibitor of chitotriosidase and acidic mammalian chitinase in a cell or a tissue.
74. Use of a compound according to any one of claims 1-54, or a pharmaceutical composition according to claim 55 in the manufacture of a medicament for the treatment or prevention of a disease, disorder, or condition associated with aberrant expression or activity of acidic mammalian chitinase.
75. Use of a compound according to any one of claims 1-54, or a pharmaceutical composition according to claim 55 in the manufacture of a medicament for the treatment or prevention of a disease, disorder, or condition associated with aberrant expression or activity of chitotriosidase.
76. The use according to claim 74 or 75, wherein the disease, disorder, or condition is selected from the group consisting of allergic diseases, acute and chronic inflammatory diseases, autoimmune diseases, dental diseases, neurologic diseases, metabolic diseases, liver diseases, kidney diseases, skin diseases, polycystic ovary syndrome, endometriosis, fibrotic disorders, storage diseases, and cancer.

77. The use of claim 76, wherein the disease, disorder, or condition is an allergic disease selected from the group consisting of asthma, allergic rhinitis, seasonal allergic rhinitis, chronic rhinosinusitis with or without nasal polyps, conjunctivitis, keratoconjunctivitis, seasonal allergic conjunctivitis, dry eye syndrome, eosinophilic esophagitis, celiac disease, food allergy, irritable bowel syndrome, irritable bowel disease, atopic eczema, atopic dermatitis, allergic contact dermatitis, eosinophilic otitis media, eosinophilic pneumonia, and IgG4 mediated diseases.

78. The use of claim 76, wherein the disease, disorder, or condition is an acute or chronic inflammatory disease selected from the group consisting of fungal diseases, parasitic infections, celiac disease, microscopic colitis, chronic obstructive pulmonary disease (COPD), idiopathic pulmonary fibrosis, interstitial lung diseases, cystic fibrosis, Hermansky-Pudlak syndrome, and Alzheimer's disease.

79. The use of claim 76, wherein the disease, disorder, or condition is an autoimmune disorder selected from the group consisting of inflammatory bowel disease, ulcerative colitis, Crohn's disease, rheumatoid arthritis, osteoarthritis, psoriasis, scleroderma, multiple sclerosis, Sjögren's syndrome, atherosclerosis, and sarcoidosis.

80. The use of claim 76, wherein the disease, disorder, or condition is periodontitis.

81. The use of claim 76, wherein the disease, disorder, or condition is a metabolic disease selected from the group consisting of insulin-dependent diabetes mellitus and non-insulin-dependent diabetes mellitus.

82. The use of claim 76, wherein the disease, disorder, or condition is a liver disease selected from the group consisting of non-alcoholic fatty liver disease, non-alcoholic steatohepatitis, hepatitis-C virus-induced fibrosis and cirrhosis, and alcoholic fibrosis.

83. The use of claim 76, wherein the disease is cancer selected from the group consisting of glioblastoma, breast cancer, colon cancer, primary and metastatic lung cancer, mesothelioma, osteosarcoma, malignant melanoma, ovarian cancer, cervical cancer, prostate cancer, liver cancer, gastric cancer, metastatic renal cancer, leukemia, and lymphoma.

84. The use of claim 76, wherein the disease is a kidney disease selected from the group consisting of nephropathy (e.g., diabetic nephropathy), focal segmental glomerulosclerosis, tubulointerstitial fibrosis, postransplant fibrosis, and retroperitoneal fibrosis (Ormond's disease).
85. The use of claim 76, wherein the disease is a fibrotic disorder.
86. The use of claim 85, wherein the fibrotic disorder is idiopathic pulmonary fibrosis (IPF).
87. The use of claim 76, wherein the disease is a storage disease selected from the group consisting of Gaucher disease, Fabry disease, lysosomal storage disorders, Niemann-Pick disease, nephropatic cysteinosis, and X-linked globotriaosylceramidosis.