

hypertriglyceridemia can also lead to pancreatitis. Hyperlipidemia is another example of a lipid metabolism disorder that is characterized by elevated levels of any one or all lipids and/or lipoproteins in the blood. Current treatments for disorders of lipid metabolism, including dieting, exercise and treatment with statins and other drugs, are not always effective. Accordingly, there is a need in the art for alternative treatments for subjects having disorders of lipid metabolism.

Summary

The present disclosure provides iRNA compositions which effect the RNA-induced silencing complex (RISC)-mediated cleavage of RNA transcripts of an ANGPL3 gene. The ANGPL3 gene may be within a cell, *e.g.*, a cell within a subject, such as a human. The present disclosure also provides methods of using the iRNA compositions of the disclosure for inhibiting the expression of an ANGPL3 gene and/or for treating a subject who would benefit from inhibiting or reducing the expression of an ANGPL3 gene, *e.g.*, a subject suffering or prone to suffering from a disorder of lipid metabolism, such as a subject suffering or prone to suffering from hyperlipidemia or hypertriglyceridemia.

In one aspect, the present disclosure refers to a double-stranded ribonucleic acid (dsRNA) agent for inhibiting expression of Angiopoietin-like 3 (ANGPTL3), comprising a sense strand and an antisense strand, wherein the antisense strand comprises at least 17 contiguous nucleotides which differ by no more than three nucleotides from the complement of nucleotides 244-307 of SEQ ID NO:1, wherein all of the nucleotides of the sense strand and all of the nucleotides of the antisense strand are modified nucleotides, wherein at least one of the modified nucleotides is selected from the group consisting of a 2'-O-methyl modified nucleotide, a 2'-fluoro modified nucleotide, a nucleotide comprising a 5'-phosphorothioate group, an abasic nucleotide, and a 2'-amino modified nucleotide, and wherein a ligand comprising an N-acetylgalactosamine (GalNAc) derivative is conjugated to at least one strand of the dsRNA agent.

In another aspect, the present disclosure refers to a double-stranded ribonucleic acid (dsRNA) agent for inhibiting expression of Angiopoietin-like 3 (ANGPTL3), wherein the dsRNA agent comprises a sense strand and an antisense strand, wherein the antisense strand comprises at least 17 contiguous nucleotides which differ by no more
5 than three nucleotides from the complement of nucleotides 256-306 of SEQ ID NO:1, wherein all of the nucleotides of the sense strand and all of the nucleotides of the antisense strand are modified nucleotides, wherein at least one of the modified nucleotides is selected from the group consisting of a 2'-O-methyl modified nucleotide, a 2'-fluoro modified nucleotide, a nucleotide comprising a 5'-phosphorothioate group, an
10 abasic nucleotide, and a 2'-amino modified nucleotide, and wherein a ligand comprising an N-acetylgalactosamine (GalNAc) derivative is conjugated to at least one strand of the dsRNA agent.

In another aspect, the present disclosure refers to a double-stranded ribonucleic acid (dsRNA) agent for inhibiting expression of Angiopoietin-like 3 (ANGPTL3),
15 wherein the dsRNA agent comprises a sense strand and an antisense strand, wherein the antisense strand comprises at least 17 contiguous nucleotides which differ by no more than three nucleotides from the complement of nucleotides 266-299 of SEQ ID NO:1, wherein all of the nucleotides of the sense strand and all of the nucleotides of the antisense strand are modified nucleotides, wherein at least one of the modified
20 nucleotides is selected from the group consisting of a 2'-O-methyl modified nucleotide, a 2'-fluoro modified nucleotide, a nucleotide comprising a 5'-phosphorothioate group, an abasic nucleotide, and a 2'-amino modified nucleotide, and wherein a ligand comprising an N-acetylgalactosamine (GalNAc) derivative is conjugated to at least one strand of the dsRNA agent.

25 In yet another aspect, the present disclosure refers to a cell containing the dsRNA agent as disclosed herein.

In yet another aspect, the present disclosure refers to a pharmaceutical composition for inhibiting expression of an ANGPTL3 gene, comprising the dsRNA agent as disclosed herein.

In yet another aspect, the present disclosure refers to an *in vitro* method of inhibiting ANGPTL3 expression in a cell, the method comprising: (a) contacting the cell with the dsRNA agent as disclosed herein; and (b) maintaining the cell produced in step (a) for a time sufficient to obtain degradation of the mRNA transcript of an ANGPTL3 gene, thereby inhibiting expression of the ANGPTL3 gene in the cell.

In yet another aspect, the present disclosure refers to the use of the dsRNA agent as disclosed herein in the manufacture of a medicament for treating a subject having a disorder that would benefit from reduction in ANGPTL3 expression, comprising that the dsRNA agent is to be administered to the subject, wherein the disorder is a disorder of lipid metabolism.

Accordingly, in one example, the present disclosure provides double-stranded ribonucleic acids (dsRNAs) for inhibiting expression of ANGPTL3. The dsRNAs comprise a sense strand and an antisense strand, wherein the sense strand comprises at least 15 contiguous nucleotides differing by no more than 3 nucleotides from the nucleotide sequence of SEQ ID NO:1 and the antisense strand comprises at least 15 contiguous nucleotides differing by no more than 3 nucleotides from the nucleotide sequence of SEQ ID NO:5.

In another example, the present disclosure provides double-stranded ribonucleic acids (dsRNAs) for inhibiting expression of ANGPTL3. The dsRNAs comprise a sense strand and an antisense strand, the antisense strand comprising a region of complementarity which comprises at least 15 contiguous nucleotides differing by no

more than 3 nucleotides from any one of the antisense sequences listed in Tables 2, 3, 7, 8, 9 and 10.

In one example, the sense and antisense strands comprise sequences selected from the group consisting of AD-53063.1, AD-53001.1, AD-53015.1, AD-52986.1, AD-52981.1, AD-52953.1, AD-53024.1, AD-53033.1, AD-53030.1, AD-53080.1, AD-53073.1, AD-53132.1, AD-52983.1, AD-52954.1, AD-52961.1, AD-52994.1, AD-52970.1, AD-53075.1, AD-53147.1, AD-53077.1 of Tables 7 and 8.

In certain examples of the disclosure, the dsRNAs comprise at least one modified nucleotide. In one example, at least one of the modified nucleotides is selected from the group consisting of a 2'-O-methyl modified nucleotide, a nucleotide comprising a 5'-phosphorothioate group, and a terminal nucleotide linked to a cholesteryl derivative or a dodecanoic acid bisdecylamide group. In another example, the modified nucleotide is selected from the group consisting of a 2'-deoxy-2'-fluoro modified nucleotide, a 2'-deoxy-modified nucleotide, a locked nucleotide, an abasic nucleotide, a 2'-amino-modified nucleotide, a 2'-alkyl-modified nucleotide, a morpholino nucleotide, a phosphoramidate, and a non-natural base comprising nucleotide.

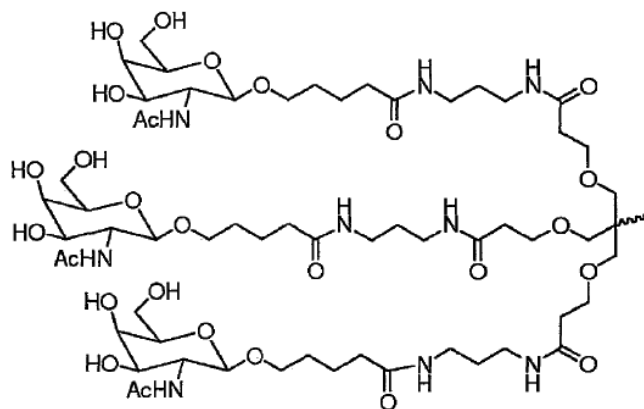
The region of complementarity of the dsRNAs may be at least 17 nucleotides in length, between 19 and 21 nucleotides in length, or 19 nucleotides in length.

In one example, each strand of a dsRNA is no more than 30 nucleotides in length.

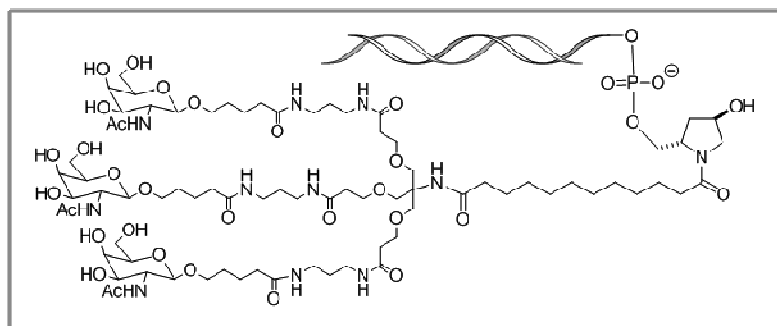
At least one strand of a dsRNA may comprise a 3' overhang of at least 1 nucleotide or at least 2 nucleotides.

In certain examples, a dsRNA further comprises a ligand. In one example, the ligand is conjugated to the 3' end of the sense strand of the dsRNA.

In some examples, the ligand is one or more N-acetylgalactosamine (GalNAc) derivatives attached through a bivalent or trivalent branched linker. In particular examples, the ligand is



In some examples, the RNAi agent is conjugated to the ligand as shown in the following schematic



5 In some examples, the RNAi agent further includes at least one phosphorothioate or methylphosphonate internucleotide linkage. In some examples, the phosphorothioate or methylphosphonate internucleotide linkage is at the 3'-terminal of one strand. In some examples, the strand is the antisense strand. In other examples, the strand is the sense strand.

10 In one example, the region of complementarity of a dsRNA consists of one of the antisense sequences of Tables 2, 3, 7, 8, 9 and 10.

In another example, a dsRNA comprises a sense strand consisting of a sense strand sequence selected from the sequences of Tables 2, 3, 7, 8, 9 and 10, and an antisense strand consisting of an antisense sequence selected from the sequences of
15 Tables 2, 3, 7, 8, 9 and 10.

In another example, the present disclosure provides a cell, *e.g.*, a hepatocyte, containing a dsRNA of the disclosure.

5 In yet another example, the present disclosure provides a vector encoding at least one strand of a dsRNA, wherein the dsRNA comprises a region of complementarity to at least a part of an mRNA encoding ANGPTL3, wherein the dsRNA is 30 base pairs or less in length, and wherein the dsRNA targets the mRNA for cleavage. The region of complementarity may be least 15 nucleotides in length or 19 to 21 nucleotides in length.

10 In a further example, the present disclosure provides a cell comprising a vector encoding at least one strand of a dsRNA, wherein the dsRNA comprises a region of complementarity to at least a part of an mRNA encoding ANGPTL3, wherein the dsRNA is 30 base pairs or less in length, and wherein the dsRNA targets the mRNA for cleavage.

15 In one example, the present disclosure provides a pharmaceutical composition for inhibiting expression of an ANGPTL3 gene comprising a dsRNA or vector of the disclosure.

In one example, the pharmaceutical composition comprises a lipid formulation, such as a MC3, SNALP or XTC formulation.

20 In another example, the present disclosure provides methods of inhibiting ANGPTL3 expression in a cell. The methods include contacting the cell with a dsRNA or a vector of the disclosure, and maintaining the cell produced for a time sufficient to obtain degradation of the mRNA transcript of an ANGPTL3 gene, thereby inhibiting expression of the ANGPTL3 gene in the cell.

The cell may be within a subject, such as a human subject, for example a human subject suffering from a disorder of lipid metabolism, *e.g.*, hyperlipidemia or hypertriglyceridemia.

25 In one example of the methods of the disclosure, ANGPTL3 expression is inhibited by at least about 30%, at least about 35%, at least about 40%, at least about 45%, at least about 50%, at least about 55%, at least about 60%, at least about 65%, at

least about 70%, at least about 75%, at least about 80%, at least about 85%, at least about 90%, at least about 91%, at least about 92%, at least about 93%, at least about 94%, at least about 95%, at least about 96%, at least about 97%, at least about 98%, or at least about 99%.

5 In another example, the present disclosure provides methods of treating a subject having a disorder that would benefit from reduction in ANGPTL3 expression, *e.g.*, a disorder of lipid metabolism, such as hyperlipidemia or hypertriglyceridemia. The methods include administering to the subject a therapeutically effective amount of a dsRNA or a vector of the disclosure, thereby treating the subject.

10 The disorder may be disorder of lipid metabolism, such as hyperlipidemia or hypertriglyceridemia

 In one example, the administration of the dsRNA to the subject causes a decrease in the level of a serum lipid, triglycerides, cholesterol and/or free fatty acids; and/or a decrease in ANGPTL3 protein accumulation. In one example, administration of the dsRNA to the subject
15 causes a decrease in the level of LDL-C, HDL-C, VLDL-C, IDL-C and/or total cholesterol.

 In one example, the dsRNA is administered at a dose of about 0.01 mg/kg to about 10 mg/kg, *e.g.*, about 0.05 mg/kg to about 5 mg/kg, about 0.05 mg/kg to about 10 mg/kg, about 0.1 mg/kg to about 5 mg/kg, about 0.1 mg/kg to about 10 mg/kg, about 0.2 mg/kg to about 5 mg/kg, about 0.2 mg/kg to about 10 mg/kg, about 0.3 mg/kg to about 5 mg/kg, about 0.3 mg/kg to about 10 mg/kg, about 0.4 mg/kg to about 5 mg/kg, about 0.4 mg/kg to about 10 mg/kg, about 0.5 mg/kg to about 5 mg/kg, about 0.5 mg/kg to about 10 mg/kg, about 1 mg/kg to about 5 mg/kg, about 1 mg/kg to about 10 mg/kg, about 1.5 mg/kg to about 5 mg/kg, about 1.5 mg/kg to about 10 mg/kg, about 2 mg/kg to about
20 about 2.5 mg/kg, about 2 mg/kg to about 10 mg/kg, about 3 mg/kg to about 5 mg/kg, about 3 mg/kg to about 10 mg/kg, about 3.5 mg/kg to about 5 mg/kg, about 4 mg/kg to about 5 mg/kg, about 4.5 mg/kg to about 5 mg/kg, about 4 mg/kg to about 10 mg/kg, about 4.5 mg/kg to about 10 mg/kg, about 5 mg/kg to about 10 mg/kg, about 5.5 mg/kg to about 10 mg/kg, about 6 mg/kg to about 10 mg/kg, about 6.5 mg/kg to about 10 mg/kg, about 7 mg/kg to about 10 mg/kg, about 7.5 mg/kg to about 10 mg/kg, about 8
25 mg/kg, about 8 mg/kg to about 10 mg/kg, about 8.5 mg/kg to about 10 mg/kg, about 9 mg/kg to about 10 mg/kg, about 9.5 mg/kg to about 10 mg/kg, about 10 mg/kg to about 10 mg/kg.

mg/kg to about 10 mg/kg, about 8.5 mg/kg to about 10 mg/kg, about 9 mg/kg to about 10 mg/kg, or about 9.5 mg/kg to about 10 mg/kg. Values and ranges intermediate to the recited values are also intended to be part of this disclosure.

For example, the dsRNA may be administered at a dose of about 0.01, 0.02, 0.03,
5 0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 3, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 4, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9, 5, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 6, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 7, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 7.9, 8, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 8.9, 9, 9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.7,
10 9.8, 9.9, or about 10 mg/kg. Values and ranges intermediate to the recited values are also intended to be part of this disclosure.

In another example, the dsRNA is administered at a dose of about 0.5 to about 50 mg/kg, about 0.75 to about 50 mg/kg, about 1 to about 50 mg/kg, about 1.5 to about 50 mg/kg, about 2 to about 50 mg/kg, about 2.5 to about 50 mg/kg, about 3 to about 50 mg/kg, about 3.5 to about 50 mg/kg, about 4 to about 50 mg/kg, about 4.5 to about 50 mg/kg, about 5 to about 50 mg/kg, about 7.5 to about 50 mg/kg, about 10 to about 50 mg/kg, about 15 to about 50 mg/kg, about 20 to about 50 mg/kg, about 20 to about 50 mg/kg, about 25 to about 50 mg/kg, about 25 to about 50 mg/kg, about 30 to about 50 mg/kg, about 35 to about 50 mg/kg, about 40 to about 50 mg/kg, about 45 to about 50 mg/kg, about 0.5 to about 45 mg/kg, about 0.75 to about 45 mg/kg, about 1 to about 45 mg/kg, about 1.5 to about 45 mg/kg, about 2 to about 45 mg/kg, about 2.5 to about 45 mg/kg, about 3 to about 45 mg/kg, about 3.5 to about 45 mg/kg, about 4 to about 45 mg/kg, about 4.5 to about 45 mg/kg, about 5 to about 45 mg/kg, about 7.5 to about 45 mg/kg, about 10 to about 45 mg/kg, about 15 to about 45 mg/kg, about 20 to about 45 mg/kg, about 20 to about 45 mg/kg, about 25 to about 45 mg/kg, about 25 to about 45 mg/kg, about 30 to about 45 mg/kg, about 35 to about 45 mg/kg, about 40 to about 45 mg/kg, about 0.5 to about 40 mg/kg, about 0.75 to about 40 mg/kg, about 1 to about 40 mg/kg, about 1.5 to about 40 mg/kg, about 2 to about 40 mg/kg, about 2.5 to about 40 mg/kg, about 3 to about 40 mg/kg, about 3.5 to about 40 mg/kg, about 4 to about 40 mg/kg, about 4.5 to about 40 mg/kg, about 5 to about 40 mg/kg, about 7.5 to about 40 mg/kg, about 10 to about 40 mg/kg, about 15 to about 40 mg/kg, about 20 to about 40 mg/kg, about 20 to about 40 mg/kg, about 25 to about 40 mg/kg, about 25 to
30 about 25 to

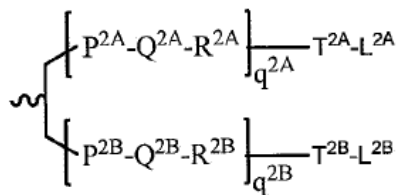
about 40 mg/kg, about 30 to about 40 mg/kg, about 35 to about 40 mg/kg, about 0.5 to about 30 mg/kg, about 0.75 to about 30 mg/kg, about 1 to about 30 mg/mg, about 1.5 to about 30 mg/kg, about 2 to about 30 mg/kg, about 2.5 to about 30 mg/kg, about 3 to about 30 mg/kg, about 3.5 to about 30 mg/kg, about 4 to about 30 mg/kg, about 4.5 to about 30 mg/kg, about 5 to about 30 mg/kg, about 7.5 to about 30 mg/kg, about 10 to about 30 mg/kg, about 15 to about 30 mg/kg, about 20 to about 30 mg/kg, about 20 to about 30 mg/kg, about 25 to about 30 mg/kg, about 0.5 to about 20 mg/kg, about 0.75 to about 20 mg/kg, about 1 to about 20 mg/mg, about 1.5 to about 20 mg/kg, about 2 to about 20 mg/kg, about 2.5 to about 20 mg/kg, about 3 to about 20 mg/kg, about 3.5 to about 20 mg/kg, about 4 to about 20 mg/kg, about 4.5 to about 20 mg/kg, about 5 to about 20 mg/kg, about 7.5 to about 20 mg/kg, about 10 to about 20 mg/kg, or about 15 to about 20 mg/kg. Values and ranges intermediate to the recited values are also intended to be part of this disclosure.

For example, subjects can be administered a therapeutic amount of iRNA, such as about 0.5, 0.6, 0.7, 0.8, 0.9, 1, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 3, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 4, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9, 5, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 6, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 7, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 7.9, 8, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 8.9, 9, 9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.7, 9.8, 9.9, 10.5, 11, 11.5, 12, 12.5, 13, 13.5, 14, 14.5, 15, 15.5, 16, 16.5, 17, 17.5, 18, 18.5, 19, 19.5, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, or about 50 mg/kg. Values and ranges intermediate to the recited values are also intended to be part of this disclosure.

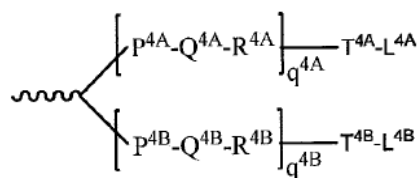
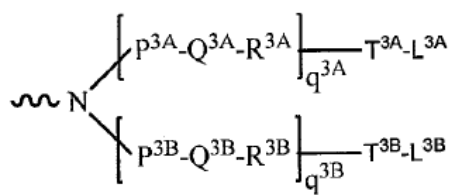
In another example, the present disclosure provides methods of inhibiting the expression of ANGPTL3 in a subject. The methods include administering to the subject a therapeutically effective amount of a dsRNA or a vector of the disclosure, thereby inhibiting the expression of ANGPTL3 in the subject.

In yet another example, the disclosure provides kits for performing the methods of the disclosure. In one example, the disclosure provides a kit for performing a method of inhibiting expression of ANGPTL3 gene in a cell by contacting a cell with a double stranded RNAi agent in an amount effective to inhibit expression of the ANGPTL3 in

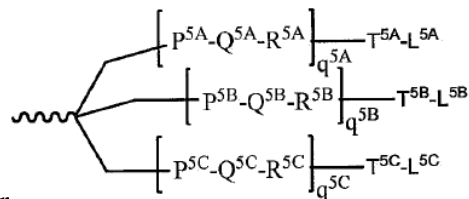
Formula XXXI



Formula XXXII



, or



5

Formula XXXIII

Formula XXXIV

wherein: q^{2A}, q^{2B}, q^{3A}, q^{3B}, q^{4A}, q^{4B}, q^{5A}, q^{5B} and q^{5C} represent independently for each occurrence 0-20 and wherein the repeating unit can be the same or different;

10 P^{2A}, P^{2B}, P^{3A}, P^{3B}, P^{4A}, P^{4B}, P^{5A}, P^{5B}, P^{5C}, T^{2A}, T^{2B}, T^{3A}, T^{3B}, T^{4A}, T^{4B}, T^{5A}, T^{5B}, T^{5C} are each independently for each occurrence absent, CO, NH, O, S, OC(O), NHC(O), CH₂, CH₂NH or CH₂O;

15

Table 2. Unmodified sense and antisense strand sequences of ANGPTL3 dsRNAs

Duplex ID	Sense Name	Sense Sequence (SEQ ID NOS 16-77, respectively, in order of appearance)	Position in NM_014495.2	Antisense Name	Antisense Sequence (SEQ ID NOS 78-139, respectively, in order of appearance)	Position in NM_014495.2
AD-45939.1	A-96225.1	UAUUUGAUCAGUCUUUUUA	281-299	A-96226.1	UAAAAAGACUGAUCAAUA	281-299
AD-45858.1	A-96149.1	GAGCAACUAACUAACUUA	478-496	A-96150.1	UUAAGUUAGUUAGUUGCUC	478-496
AD-45869.1	A-96137.1	GGCCAAAUUAAUGACAUAU	247-265	A-96138.1	AUAUGUCAUUAUUUGGCC	247-265
AD-45884.1	A-96189.1	CGAAUUGAGUUGGAAGACU	1045-1063	A-96190.1	AGUCUCCAACUCAAUUCG	1045-1063
AD-45892.1	A-96129.1	CCUCCUUCAGUUGGGACAU	198-216	A-96130.1	AUGUCCCAACUGAAGGAGG	198-216
AD-45899.1	A-96147.1	CACUUGAACUCAACUAAA	401-419	A-96148.1	UUUGAGUUGAGUUAAGUG	401-419
AD-45915.1	A-96231.1	GUCCAUGGACAUUAAUUA	890-908	A-96232.1	UGAAUUAUGUCCAUGGAC	890-908
AD-45924.1	A-96219.1	AAUCAAGAUUUGCUAUGUU	152-170	A-96220.1	AACAUAGCAAUCUUGAUU	152-170
AD-45860.1	A-96181.1	CUAGAGAAGAUUACUCCA	1000-1018	A-96182.1	UGGAGUAUAUCUUCUCUAG	1000-1018
AD-45870.1	A-96153.1	CUAACUAACUUAUUCAAA	484-502	A-96154.1	UUUGAAUUAAGUUAGUAG	484-502
AD-45870.2	A-96153.2	CUAACUAACUUAUUCAAA	484-502	A-96154.2	UUUGAAUUAAGUUAGUAG	484-502
AD-45877.1	A-96171.1	CAUUAAUUAACAUCGAAU	899-917	A-96172.1	AUUCGAUGUUGAAUUAUG	899-917
AD-45885.1	A-96205.1	CAAAUGUUGAUCCAUGCA	1392-1410	A-96206.1	UGGAUGGAUCAACAUUUUG	1392-1410
AD-45893.1	A-96145.1	CAUAUAAACUACAAGUCAA	359-377	A-96146.1	UUGACUUGUAGUUUAUAUG	359-377
AD-45900.1	A-96163.1	GACCCAGCAACUCUCAAGU	839-857	A-96164.1	ACUUGAGAGUUGCUGGGUC	839-857
AD-45925.1	A-96235.1	GGUUGGGCCUAGAGAAGAU	992-1010	A-96236.1	AUCUUCUCUAGGCCCAACC	992-1010
AD-45861.1	A-96197.1	GUGUGGAGAAAACAACCUA	1272-1290	A-96198.1	UAGGUUGUUUUCUCCACAC	1272-1290

AD-45871.1	A-96169.1	GACAUUAAUUCAACAU CGA	897-915	A-96170.1	UCGAUGUUGAAUUA AUGUC	897-915
AD-45878.1	A-96187.1	CAUAGUGAAGCAAUCUAAU	1017-1035	A-96188.1	AUUAGAUUGCUUCACUAUG	1017-1035
AD-45886.1	A-96127.1	CUAUGUUAGACGAUGUAAA	164-182	A-96128.1	UUUACAUCGUCUAACAUAG	164-182
AD-45894.1	A-96161.1	CACAGAAAUUUCUCUAUCU	684-702	A-96162.1	AGAUAGAGAAAUUUCUGUG	684-702
AD-45901.1	A-96179.1	GUUGGGCCUAGAGAAGAU A	993-1011	A-96180.1	UAUCUUCUCUAGGCCCAAC	993-1011
AD-45909.1	A-96213.1	GCCAAAUCAAGAUUUGCU	147-165	A-96214.1	AGCAAAUCUUGAUUUUGGC	147-165
AD-45934.1	A-96223.1	ACAUUUUGAUCAGUCUUU	278-296	A-96224.1	AAAGACUGAUCAAUAUGU	278-296
AD-45934.2	A-96223.2	ACAUUUUGAUCAGUCUUU	278-296	A-96224.2	AAAGACUGAUCAAUAUGU	278-296
AD-45863.1	A-96135.1	CUUAAAGACUUUGUCCAUA	220-238	A-96136.1	UAUGGACAAAGUCUUUAAG	220-238
AD-45872.1	A-96185.1	CCAUAGUGAAGCAAUCUAA	1016-1034	A-96186.1	UUAGAUUGCUUCACUAUGG	1016-1034
AD-45879.1	A-96203.1	CAACCAAAUGUUGAUCCA	1388-1406	A-96204.1	UGGAUCAACAUUUUGGUUG	1388-1406
AD-45887.1	A-96143.1	CUACAUUAAACUACAAGU	356-374	A-96144.1	ACUUGUAGUUUAUUGUAG	356-374
AD-45895.1	A-96177.1	GGGAGGCUUGAUGGAGAAU	970-988	A-96178.1	AUUCUCCAUCAAGCCUCCC	970-988
AD-45902.1	A-96195.1	GGUGUUUUCUACUUGGGAU	1188-1206	A-96196.1	AUCCCAAGUAGAAAACACC	1188-1206
AD-45910.1	A-96229.1	AAGAGCACCAAGAACUACU	711-729	A-96230.1	AGUAGUUCUUGGUGCUCUU	711-729
AD-45935.1	A-96239.1	UGGAGAAAACAACCUAAAU	1275-1293	A-96240.1	AUUUAGGUUGUUUUCUCCA	1275-1293
AD-45864.1	A-96151.1	GCAACUAACUAACUUAUU	480-498	A-96152.1	AAUUAAGUUAGUUAGUUGC	480-498
AD-45873.1	A-96201.1	CAACCUAAAUGGUAAAUAU	1284-1302	A-96202.1	AUAUUUACCAUUUAGGUUG	1284-1302
AD-45880.1	A-96125.1	GCUAUGUUAGACGAUGUAA	163-181	A-96126.1	UUACAUCGUCUAACAUAGC	163-181
AD-45888.1	A-96159.1	CCCACAGAAAUUUCUCUAU	682-700	A-96160.1	AUAGAGAAAUUUCUGUGGG	682-700

AD-45896.1	A-96193.1	GAUUUGGUGUUUUCUACUU	1183-1201	A-96194.1	AAGUAGAAAACACCAAUC	1183-1201
AD-45903.1	A-96211.1	CAGAGCCAAAUAAGAUAU	143-161	A-96212.1	AAUCUUGAUUUUGGCUCUG	143-161
AD-45919.1	A-96217.1	AAAUCAAGAUUUGCUAUGU	151-169	A-96218.1	ACAUAGCAAUCUUGAUUU	151-169
AD-45865.1	A-96167.1	CAUGGACAUUAAUUAACA	893-911	A-96168.1	UGUUGAAUUAUGUCCAUG	893-911
AD-45874.1	A-96123.1	GAUUUGCUAUGUUAGACGA	158-176	A-96124.1	UCGUCUACAUAGCAAUC	158-176
AD-45881.1	A-96141.1	GAACUACAUUAAACUACA	353-371	A-96142.1	UGUAGUUUAUUGUAGUUC	353-371
AD-45889.1	A-96175.1	CGAAUAGAUGGAUCACAAA	913-931	A-96176.1	UUUGUGAUCCAUCUAUUCG	913-931
AD-45897.1	A-96209.1	CUUGUAAAAACUCUAAACU	1817-1835	A-96210.1	AGUUUAGAGUUUUAACAAG	1817-1835
AD-45904.1	A-96227.1	AUUUGAUCAGUCUUUUUAU	282-300	A-96228.1	AUAAAAAGACUGAUCAAU	282-300
AD-45920.1	A-96233.1	UCCAUGGACAUUAAUCAA	891-909	A-96234.1	UUGAAUUAUGUCCAUGGA	891-909
AD-45856.1	A-96117.1	CACAAUUAAGCUCCUUCUU	57-75	A-96118.1	AAGAAGGAGCUUAAUUGUG	57-75
AD-45929.1	A-96221.1	CAACAUUUUGAUCAGUCU	276-294	A-96222.1	AGACUGAUCAAUAUGUUG	276-294
AD-45866.1	A-96183.1	CUCCAUAGUGAAGCAAUCU	1014-1032	A-96184.1	AGAUUGCUUCACUAUGGAG	1014-1032
AD-45875.1	A-96139.1	GCCAAUUAUGACAUUU	248-266	A-96140.1	AAUAUGUCAUUAUUUGGC	248-266
AD-45882.1	A-96157.1	CAACAGCAUAGUCAAAUA	622-640	A-96158.1	UUAUUUGACUAUGCUGUUG	622-640
AD-45890.1	A-96191.1	GGAAUACGAAACCAACU	1105-1123	A-96192.1	AGUUGGUUUCGUGAUUCC	1105-1123
AD-45898.1	A-96131.1	CAGUUGGGACAUGGUCUUA	205-223	A-96132.1	UAAGACCAUGUCCCAACUG	205-223
AD-45857.1	A-96133.1	GACAUGGUCUUAAGACUU	212-230	A-96134.1	AAGUCUUUAAGACCAUGUC	212-230
AD-45930.1	A-96237.1	UGUGGAGAAAACAACCUAA	1273-1291	A-96238.1	UUAGGUUGUUUUCUCCACA	1273-1291
AD-45867.1	A-96199.1	GUGGAGAAAACAACCUAAA	1274-1292	A-96200.1	UUUAGGUUGUUUUCUCCAC	1274-1292

AD-45876.1	A-96155.1	CCAACAGCAUAGUCAAAUA	621-639	A-96156.1	UAUUUGACUAUGCUGUUGG	621-639
AD-45883.1	A-96173.1	CAACAUCGAUAGAUGGAU	907-925	A-96174.1	AUCCAUCUAUUCGAUGUUG	907-925
AD-45891.1	A-96207.1	GCAAAUUUAAAAGGCAAUA	1441-1459	A-96208.1	UAUUGCCUUUUAAAUUUGC	1441-1459
AD-45914.1	A-96215.1	CAAAAUCAAGAUUUGCUAU	149-167	A-96216.1	AUAGCAAUCUUGAUUUUG	149-167
AD-15838.1	A-26242.1	AGAGCCAAAAUCAAGAUUU	144-162	A-26243.2	AAAUCUUGAUUUUGGCUCU	144-162

Table 3. Modified sense and antisense strand sequences of ANGPTL3 dsRNAs

Duplex ID	Sense OligoName	Sense Sequence (SEQ ID NOS 140-201, respectively, in order of appearance)	Antisense OligoName	Antisense Sequence (SEQ ID NOS 202-263, respectively, in order of appearance)
AD-45939.1	A-96225.1	uAuuuGAucAGucuuuuAdTsdT	A-96226.1	uAAAAAGACUGAUcAAAUAdTsdT
AD-45858.1	A-96149.1	GAGcAAcuAAcuAAcuAAAdTsdT	A-96150.1	UuAAGUuAGUuAGUUGCUCdTsdT
AD-45869.1	A-96137.1	GGccAAAuuAAuGAcAuAudTsdT	A-96138.1	AuAUGUcAUuAAUUUGGCCdTsdT
AD-45884.1	A-96189.1	cGAAuuGAGuuGAAGAcudTsdT	A-96190.1	AGUCUUCcAACUcAAUUCGdTsdT
AD-45892.1	A-96129.1	ccuccuucAGuuGGGAcAudTsdT	A-96130.1	AUGUCCcAACUGAAGGAGGdTsdT
AD-45899.1	A-96147.1	cAcuGAAcucAAcucAAAdTsdT	A-96148.1	UUUGAGUUGAGUucAAGUGdTsdT
AD-45915.1	A-96231.1	GuccAuGGAcAuAAuucAdTsdT	A-96232.1	UGAAUuAAUGUCcAUGGACdTsdT
AD-45924.1	A-96219.1	AAucAAGAuuGcuAuGuudTsdT	A-96220.1	AAcAuAGcAAAUCUUGAUUdTsdT
AD-45860.1	A-96181.1	cuAGAGAAGAuAuAcuccAdTsdT	A-96182.1	UGGAGuAuAUCUUCUCuAGdTsdT
AD-45870.1	A-96153.1	cuAAcuAAcuAAuucAAAdTsdT	A-96154.1	UUUGAAUuAAGUuAGUuAGdTsdT
AD-45870.2	A-96153.2	cuAAcuAAcuAAuucAAAdTsdT	A-96154.2	UUUGAAUuAAGUuAGUuAGdTsdT
AD-45877.1	A-96171.1	cAuuAAuucAAcAucGAAudTsdT	A-96172.1	AUUCGAUGUUGAAUuAAUGdTsdT

AD-45885.1	A-96205.1	cAAAAuGuuGAuccAuccAdTsdT	A-96206.1	UGGAUGGAUcAAcAUUUUGdTsdT
AD-45893.1	A-96145.1	cAuAuAAAcuAcAAGucAAdTsdT	A-96146.1	UUGACUUGuAGUuAuAUGdTsdT
AD-45900.1	A-96163.1	GAcccAGcAAcucucAAGudTsdT	A-96164.1	ACUUGAGAGUUGCUGGGUCdTsdT
AD-45925.1	A-96235.1	GGuuGGGccuAGAGAAGAudTsdT	A-96236.1	AUCUUCUCuAGGCCcAACdTsdT
AD-45861.1	A-96197.1	GuGuGGAGAAAacAAccuAdTsdT	A-96198.1	uAGGUUGUUUUCUCcAcAcdTsdT
AD-45871.1	A-96169.1	GAcAuAAuucAAcAucGAdTsdT	A-96170.1	UCGAUGUUGAAUuAAUGUCdTsdT
AD-45878.1	A-96187.1	cAuAGuGAAGcAAucuAAudTsdT	A-96188.1	AUuAGAUUGCUUcACuAUGdTsdT
AD-45886.1	A-96127.1	cuAuGuuAGAcGAuGuAAAdTsdT	A-96128.1	UUuAcAUCGUCuAAcAuAGdTsdT
AD-45894.1	A-96161.1	cAcAGAAuuucucuAucudTsdT	A-96162.1	AGAuAGAGAAAuUUCUGUGdTsdT
AD-45901.1	A-96179.1	GuuGGGccuAGAGAAGAuAdTsdT	A-96180.1	uAUCUUCUCuAGGCCcAACdTsdT
AD-45909.1	A-96213.1	GccAAAAucAAGAuuuGcudTsdT	A-96214.1	AGcAAAUCUUGAUUUUGGCdTsdT
AD-45934.1	A-96223.1	AcAuAuuuGAucAGucuuudTsdT	A-96224.1	AAAGACUGAUcAAAuAUGUdTsdT
AD-45934.2	A-96223.2	AcAuAuuuGAucAGucuuudTsdT	A-96224.2	AAAGACUGAUcAAAuAUGUdTsdT
AD-45863.1	A-96135.1	cuuAAAGAcuuuGuccAuAdTsdT	A-96136.1	uAUGGAcAAAGUCUuAAGdTsdT
AD-45872.1	A-96185.1	ccAuAGuGAAGcAAucuAAAdTsdT	A-96186.1	UuAGAUUGCUUcACuAUGGdTsdT
AD-45879.1	A-96203.1	cAAccAAAAuGuuGAuccAdTsdT	A-96204.1	UGGAUcAAcAUUUUGGUUGdTsdT
AD-45887.1	A-96143.1	cuAcAuAuAAAcuAcAAGudTsdT	A-96144.1	ACUUGuAGUuAuAUGuAGdTsdT
AD-45895.1	A-96177.1	GGGAGGcuuGAuGGAGAAudTsdT	A-96178.1	AUUCUCcAUcAAGCCUCCcTsdT
AD-45902.1	A-96195.1	GGuGuuuuucuAcuuGGGAudTsdT	A-96196.1	AUCCcAAGuAGAAAacACcTsdT
AD-45910.1	A-96229.1	AAGAGcAccAAGAAcuAcudTsdT	A-96230.1	AGuAGUUCUUGGUGCUCUdTsdT

AD-45935.1	A-96239.1	uGGAGAAAACAAccuAAAudTsdT	A-96240.1	AUUuAGGUUGUUUUCUCcAdTsdT
AD-45864.1	A-96151.1	GcAAcuAAcuAAcuuAAuudTsdT	A-96152.1	AAUuAAGUuAGUuAGUUGCdTsdT
AD-45873.1	A-96201.1	cAAccuAAAuGGuAAAuAudTsdT	A-96202.1	AuAUUuACcAUUuAGGUUGdTsdT
AD-45880.1	A-96125.1	GcuAuGuuAGAcGAuGuAAdTsdT	A-96126.1	UuAcAUCGUCuAAcAuAGCdTsdT
AD-45888.1	A-96159.1	cccAcAGAAAUuucucuAudTsdT	A-96160.1	AuAGAGAAAUUUCUGUGGGdTsdT
AD-45896.1	A-96193.1	GAuuuGGuGuuuucuAcuudTsdT	A-96194.1	AAGuAGAAAACcAAAUCdTsdT
AD-45903.1	A-96211.1	cAGAGccAAAuAAGAuudTsdT	A-96212.1	AAUCUUGAUUUUGGCUCUGdTsdT
AD-45919.1	A-96217.1	AAAuAAGAuuuGcuAuGudTsdT	A-96218.1	AcAuAGcAAAUCUUGAUUdTsdT
AD-45865.1	A-96167.1	cAuGGAcAuAAuucAAcAdTsdT	A-96168.1	UGUUGAAUuAAUGUCcAUGdTsdT
AD-45874.1	A-96123.1	GAuuuGcuAuGuuAGAcGAdTsdT	A-96124.1	UCGUCuAAcAuAGcAAAUCdTsdT
AD-45881.1	A-96141.1	GAAcuAcAuAuAAAcuAcAdTsdT	A-96142.1	UGuAGUuAuAuGuAGUUCdTsdT
AD-45889.1	A-96175.1	cGAAuAGAuGGAucAcAAAdTsdT	A-96176.1	UUUGUGAUCcAUCuAUUCGdTsdT
AD-45897.1	A-96209.1	cuuGuuAAAAcucuAAAcudTsdT	A-96210.1	AGUUuAGAGUUUuAAcAAGdTsdT
AD-45904.1	A-96227.1	AuuuGAucAGucuuuuuAudTsdT	A-96228.1	AuAAAAAGACUGAUcAAAUdTsdT
AD-45920.1	A-96233.1	uccAuGGAcAuAAuucAAdTsdT	A-96234.1	UUGAAUuAAUGUCcAUGGAdTsdT
AD-45856.1	A-96117.1	cAcAAuuAAGcuccuucudTsdT	A-96118.1	AAGAAGGAGCUuAAUUGUGdTsdT
AD-45929.1	A-96221.1	cAAcAuAuuuGAucAGucudTsdT	A-96222.1	AGACUGAUcAAAuAUGUUGdTsdT
AD-45866.1	A-96183.1	cuccAuAGuGAAGcAAucudTsdT	A-96184.1	AGAUUGCUUcAcuAUGGAGdTsdT
AD-45875.1	A-96139.1	GccAAAuuAAuGAcAuAuudTsdT	A-96140.1	AAuAUGUcAUuAAUUUGGCdTsdT
AD-45882.1	A-96157.1	cAAcAGcAuAGucAAAUAdTsdT	A-96158.1	UuAUUUGACuAUGCUGUUGdTsdT

AD-45890.1	A-96191.1	GGAAAUcAcGAAAccAAcudTsdT	A-96192.1	AGUUGGUUUCGUGAUUUCCdTsdT
AD-45898.1	A-96131.1	cAGuuGGGAcAuGGucuuAdTsdT	A-96132.1	uAAGACcAUGUCCcAACUGdTsdT
AD-45857.1	A-96133.1	GAcAuGGucuuAAAGAcuudTsdT	A-96134.1	AAGUCUUuAAGACcAUGUCdTsdT
AD-45930.1	A-96237.1	uGuGGAGAAAAcAAccuAAdTsdT	A-96238.1	UuAGGUUGUUUUCUCcAcAdTsdT
AD-45867.1	A-96199.1	GuGGAGAAAAcAAccuAAAAdTsdT	A-96200.1	UUuAGGUUGUUUUCUCcACdTsdT
AD-45876.1	A-96155.1	ccAAcAGcAuAGucAAAuAdTsdT	A-96156.1	uAUUUGACuAUGCUGUUGdTsdT
AD-45883.1	A-96173.1	cAAcAucGAAuAGAuGGAudTsdT	A-96174.1	AUCcAUCuAUUCGAUGUUGdTsdT
AD-45891.1	A-96207.1	GcAAAuuuAAAAGGcAAuAdTsdT	A-96208.1	uAUUGCCUUuAAAAUUGCdTsdT
AD-45914.1	A-96215.1	cAAAAucAAGAuuuGcuAudTsdT	A-96216.1	AuAGcAAAUCUUGAUUUUGdTsdT
AD-15838.1	A-26242.1	AGAGccAAAAucAAGAuudTsdT	A-26243.2	AAAUCUuGAUUUuGGCUCUdTsdT

Lowercase nucleotides (a, u, g, c) are 2'-O-methyl nucleotides; s is a phosphothiorate linkage.

Table 7. Unmodified sense and antisense strand sequences of ANGPTL3 GalNac-conjugated dsRNAs

Duplex ID	Sense Name	Sense Sequence (SEQ ID NOS 264-448, respectively, in order of appearance)	Position in NM_014495.2	Antisense Name	Antisense Sequence (SEQ ID NOS 449-633, respectively, in order of appearance)	Position in NM_014495.2
AD-53063.1	A-108558.1	AAAGACAACAAACAUUAUUAUx	1066-1086	A-108559.1	AAUAUAAUGUUUGUUGUCUUUCC	1064-1086
AD-52965.1	A-108310.1	ACAAUUAAGCUCCUUCUUUUUx	58-78	A-108311.1	AAAAAGAAGGAGCUUAAUUGUGA	56-78
AD-53030.1	A-108410.1	UGUCACUUGAACUCAACUCAAx	398-418	A-108411.1	UUGAGUUGAGUUCAAGUGACAUA	396-418
AD-52953.1	A-108306.1	UCACAAUUAAGCUCCUUCUUUx	56-76	A-108307.1	AAAGAAGGAGCUUAAUUGUGAAC	54-76
AD-53001.1	A-108416.1	CUUGAACUCAACUAAAACUUx	403-423	A-108417.1	AAGUUUUGAGUUGAGUUCAAGUG	401-423
AD-53080.1	A-108548.1	CUCCAUAGUGAAGCAAUCUAAx	1014-1034	A-108549.1	UUAGAUUGCUUCACUAUGGAGUA	1012-1034
AD-52971.1	A-108312.1	CAAUUAAGCUCCUUCUUUUUx	59-79	A-108313.1	UAAAAAGAAGGAGCUUAAUUGUG	57-79
AD-53071.1	A-108498.1	ACCCAGCAACUCUCAAGUUUUx	840-860	A-108499.1	AAAACUUGAGAGUUGCUGGGUCU	838-860
AD-53024.1	A-108408.1	GAAUAUGUCACUUGAACUCAAx	393-413	A-108409.1	UUGAGUUCAAGUGACAUAUUCUU	391-413
AD-52977.1	A-108314.1	AAUUAAGCUCCUUCUUUUUAUx	60-80	A-108315.1	AUAAAAAGAAGGAGCUUAAUUGU	58-80
AD-53064.1	A-108574.1	CAUUAUAUUGAAUAUUCUUUUx	1078-1098	A-108575.1	AAAAGAAUAUCAAUAUAUGUU	1076-1098
AD-53033.1	A-108458.1	ACUAACUAACUAAAUUCAAAAx	483-503	A-108459.1	UUUUGAAUUAAGUUAGUUAGUU G	481-503
AD-52954.1	A-108322.1	UUAUUGUCCUCUAGUUAUUUx	77-97	A-108323.1	AAUAACUAGAGGAACAAUAAAA	75-97
AD-53098.1	A-108554.1	CAUAGUGAAGCAAUCUAAUUx	1017-1037	A-108555.1	UAAUUAGAUUGCUUCACUAUGGA	1015-1037
AD-53092.1	A-108552.1	CCAUAGUGAAGCAAUCUAAUUx	1016-1036	A-108553.1	AAUUAGAUUGCUUCACUAUGGAG	1014-1036
AD-53073.1	A-108530.1	GAUCACAAAACUCAAUGAAAx	923-943	A-108531.1	UUUCAUUGAAGUUUUGUGAUCCA	921-943
AD-53132.1	A-108628.1	AUGGAAGGUUAUACUCUAUAAx	1364-1384	A-108629.1	UUAUAGAGUAUAACCUUCCAUUU	1362-1384

AD-53086.1	A-108550.1	UCCAUAGUGAAGCAAUCUAAUx	1015-1035	A-108551.1	AUUAGAUUGCUUCACUAUGGAGU	1013-1035
AD-52961.1	A-108340.1	CUAUGUUAGACGAUGUAAAAAx	164-184	A-108341.1	UUUUUACAUCGUCUACAUAAGCA	162-184
AD-52983.1	A-108316.1	AUUAAGCUCCUUCUUUUUAUUx	61-81	A-108317.1	AAUAAAAAGAAGGAGCUAAUUG	59-81
AD-53027.1	A-108456.1	AACUAACUAAUUAUUCAAx	482-502	A-108457.1	UUUGAAUUAAGUUAGUUAGUUGC	480-502
AD-52986.1	A-108364.1	GGCCAAAUAAUGACAUUUUx	247-267	A-108365.1	AAAUUGUCAUUAAUUUGGCCCU	245-267
AD-52989.1	A-108318.1	UUUUAUUGUCCUCUAGUUUx	75-95	A-108319.1	AUAACUAGAGGAACAAUAAAAAG	73-95
AD-52981.1	A-108378.1	ACAUAUUUGAUCAGUCUUUUUx	278-298	A-108379.1	AAAAAGACUGAUCAAAUAGUUG	276-298
AD-53077.1	A-108500.1	CCCAGCAACUCUCAAGUUUUUx	841-861	A-108501.1	AAAAACUUGAGAGUUGCUGGGUC	839-861
AD-53095.1	A-108506.1	CAGGUAGUCCAUGGACAUUAx	884-904	A-108507.1	UUAAUGUCCAUGGACUACCUGAU	882-904
AD-52970.1	A-108390.1	ACUGAGAAGAAUACAUAUAx	345-365	A-108391.1	UUUAUGUAGUUCUUCUCAGUUC	343-365
AD-53015.1	A-108452.1	GAGCAACUACUAAUUAUUx	478-498	A-108453.1	AAUUAAGUUAGUUAGUUGCUCUU	476-498
AD-53147.1	A-108618.1	AACAACUAAAUGGUAAUAUx	1282-1302	A-108619.1	AUAUUUACCAUUUAGGUUGUUUU	1280-1302
AD-53103.1	A-108540.1	CCUAGAGAAGAUAUACUCCAUX	999-1019	A-108541.1	AUGGAGUAUAUCUUCUCUAGGCC	997-1019
AD-52969.1	A-108374.1	CAACAUAUUUGAUCAGUCUUUx	276-296	A-108375.1	AAAGACUGAUCAAAUAGUUGAG	274-296
AD-53075.1	A-108562.1	ACAACAACAUUAUAUUGAAUx	1070-1090	A-108563.1	AUUCAUAUAAUGUUUGUUGUCU	1068-1090
AD-52994.1	A-108398.1	ACAUUAAAACUACAAGUCAAx	358-378	A-108399.1	UUUGACUUGUAGUUUAUUGUA G	356-378
AD-52960.1	A-108324.1	CUAGUUUUUCCUCCAGAAUUx	88-108	A-108325.1	AAUUCUGGAGGAAUAACUAGAG	86-108
AD-53003.1	A-108448.1	AAGAGCAACUAAUAAUUAx	476-496	A-108449.1	UUAAGUUAGUUAGUUGCUCUUCU	474-496
AD-52995.1	A-108320.1	UUUAUUGUCCUCUAGUUUUx	76-96	A-108321.1	AAUAACUAGAGGAACAAUAAAA	74-96
AD-53037.1	A-108428.1	CUCCUAGAAGAAAAAUUCUAX	430-450	A-108429.1	UAGAAUUUUUUCUUCUAGGAGGC	428-450

AD-53087.1	A-108566.1	AACAAACAUUAUUAUGAAUAUx	1072-1092	A-108567.1	AUAUUCAUAUAAUGUUUGUUGU	1070-1092
AD-53076.1	A-108578.1	GGAAAUACGAAACCAACUAUx	1105-1125	A-108579.1	AUAGUUGGUUUCGUGAUUUCCCA	1103-1125
AD-52975.1	A-108376.1	AACAUAUUUGAUCAGUCUUUx	277-297	A-108377.1	AAAAGACUGAUCAAUAUGUUGA	275-297
AD-53138.1	A-108630.1	UGGAAGGUUAUACUCUAUAAx	1365-1385	A-108631.1	UUUAUAGAGUAUAACCUUCCA	1363-1385
AD-53091.1	A-108536.1	GGAGAACUACAAUAUGGUUx	948-968	A-108537.1	AAACCAUAUUUGUAGUUCUCCA	946-968
AD-53124.1	A-108594.1	GAAAACAAAGAUUUGGUGUUx	1174-1194	A-108595.1	AAACACCAAUCUUUGUUUCCG	1172-1194
AD-53125.1	A-108610.1	AGUGUGGAGAAAACAACCUAx	1271-1291	A-108611.1	UUAGGUUGUUUUCUCCACACU	1269-1291
AD-53036.1	A-108412.1	GUCACUUGAACUCAACUCAAx	399-419	A-108413.1	UUUGAGUUGAGUUCAAGUGACU	397-419
AD-53061.1	A-108526.1	GAUGGAUCACAAAACUCAAUx	919-939	A-108527.1	AUUGAAGUUUGUGAUCCAUCU	917-939
AD-53093.1	A-108568.1	ACAAACAUUAUUAUGAAUAUx	1073-1093	A-108569.1	AAUAUUCAUAUAAUGUUUGUUG	1071-1093
AD-53137.1	A-108614.1	UGUGGAGAAAACAACCUAAUx	1273-1293	A-108615.1	AUUUAGGUUGUUUUCUCCACU	1271-1293
AD-52999.1	A-108384.1	AUCAGUCUUUUUAUGAUCUAUx	287-307	A-108385.1	AUAGAUAUAAAAGACUGAUCU	285-307
AD-53069.1	A-108560.1	GACAACAAACAUUAUAUUGAAx	1069-1089	A-108561.1	UUCAUAUAAUGUUUGUUGUCU	1067-1089
AD-53034.1	A-108474.1	CAACAGCAUAGUCAAAUAAAx	622-642	A-108475.1	UUUUUUUUGACUAUGCUGUUGG U	620-642
AD-52976.1	A-108392.1	CUGAGAAGAACUACAUUAAAx	346-366	A-108393.1	UUUAUAUGUAGUUCUUCUCAGU	344-366
AD-52996.1	A-108336.1	UGCUAUGUUAGACGAUGUAAAx	162-182	A-108337.1	UUUACAUCGUCUAACAUAGCAA	160-182
AD-53029.1	A-108488.1	AACCCACAGAAUUUCUCUAUx	680-700	A-108489.1	AUAGAGAAUUUCUGUGGGUUCU	678-700
AD-53020.1	A-108438.1	CUUCAACAAAAGUGAAUAUx	451-471	A-108439.1	AUAUUUCACUUUUUGUUGAAGU	449-471
AD-53042.1	A-108414.1	UCACUUGAACUCAACUAAAx	400-420	A-108415.1	UUUUGAGUUGAGUUCAAGUGACU	398-420
AD-53011.1	A-108482.1	CAUAGUCAAAUAAAAGAAUAx	628-648	A-108483.1	UAUUUCUUUUUAUUUGACUAUCU	626-648

AD-52957.1	A-108370.1	CAAAAACUCAACAUUUUGAUx	268-288	A-108371.1	AUCAAAUAUGUUGAGUUUUUGAA	266-288
AD-53008.1	A-108434.1	UACUUCAACAAAAAGUGAAAUx	449-469	A-108435.1	AUUUCACUUUUUGUUGAAGUAGA	447-469
AD-53065.1	A-108496.1	GACCCAGCAACUCUCAAGUUUx	839-859	A-108497.1	AAACUUGAGAGUUGCUGGGUCUG	837-859
AD-53115.1	A-108638.1	UUGAAUGAACUGAGGCAAAUx	1427-1447	A-108639.1	AAUUUGCCUCAGUUCAUCAAAG	1425-1447
AD-53012.1	A-108404.1	UAUAAACUACAAGUCAAAAAUx	361-381	A-108405.1	AUUUUUGACUUGUAGUUUAUAG G	359-381
AD-53004.1	A-108464.1	AAACAAGAUAAUAGCAUCAAx	559-579	A-108465.1	UUUGAUGCUAUUAUCUUGUUUU U	557-579
AD-53021.1	A-108454.1	CAACUAACUAAUUAUUCAAx	481-501	A-108455.1	UUGAAUUAAGUUAGUUAGUUGCU	479-501
AD-52955.1	A-108338.1	GCUAUGUUAGACGAUGUAAAx	163-183	A-108339.1	UUUUACAUCGUCUACAUAGCAA	161-183
AD-53119.1	A-108608.1	ACUUGGGAUCACAAAGCAAAx	1198-1218	A-108609.1	UUUUGCUUUGUGAUCCCAAGUAG	1196-1218
AD-52990.1	A-108334.1	UUGCUAUGUUAGACGAUGUAx	161-181	A-108335.1	UUACAUCGUCUACAUAGCAAU	159-181
AD-52964.1	A-108388.1	AACUGAGAAGAACUACAUUAx	344-364	A-108389.1	UAUAUGUAGUUCUUCUCAGUUC	342-364
AD-52973.1	A-108344.1	GAUGUAAAAUUUUAGCCAUX	175-195	A-108345.1	AUUGGCUAAAAUUUUUACAUCGU	173-195
AD-53074.1	A-108546.1	ACUCCAUGUGAAGCAAUCUAx	1013-1033	A-108547.1	UAGAUUGCUUCACUAUGGAGUAU	1011-1033
AD-53026.1	A-108440.1	UUCAACAAAAAGUGAAAUUUx	452-472	A-108441.1	AAUAAUUUCACUUUUUGUUGAAGU	450-472
AD-53062.1	A-108542.1	CUAGAGAAGAUUACUCCAUAx	1000-1020	A-108543.1	UAUGGAGUAUAUCUUCUCUAGGC	998-1020
AD-53114.1	A-108622.1	CAACCUAAAUGGUAAAUUAAx	1284-1304	A-108623.1	UUAAUUUUACCAUUUAGGUUGUU	1282-1304
AD-53082.1	A-108580.1	GAAAUACGAAACCAACUAUAx	1106-1126	A-108581.1	UAUAGUUGGUUUCGUGAUUUCCC	1104-1126
AD-53035.1	A-108490.1	CCACAGAAUUUCUCUAUCUUx	683-703	A-108491.1	AAGAUAGAGAAAUUCUGUGGGU	681-703
AD-52978.1	A-108330.1	AAAUCAAGAUUUGCUAUGUUx	151-171	A-108331.1	UAACAUAGCAAUCUUGAUUUUG	149-171
AD-53084.1	A-108518.1	ACAUUAAUUAACAUCGAUAx	898-918	A-108519.1	UAUUCGAUGUUGAAUUAAGUCC	896-918

AD-52972.1	A-108328.1	CCAGAGCCAAAAUCAAGAUUUx	142-162	A-108329.1	AAAUCUUGAUUUUGGCUCUGGAG	140-162
AD-53002.1	A-108432.1	CUACUUCAACAAAAGUGAAAx	448-468	A-108433.1	UUUCACUUUUUGUUGAAGUAGAA	446-468
AD-53078.1	A-108516.1	GACAUUAAUUCAACAUCGAAUx	897-917	A-108517.1	AUUCGAUGUUGAAUUAUGUCCA	895-917
AD-53072.1	A-108514.1	GGACAUUAAUUCAACAUCGAAx	896-916	A-108515.1	UUCGAUGUUGAAUUAUGUCCAU	894-916
AD-53005.1	A-108480.1	GCAUAGUCAAAUAAAAGAAAUx	627-647	A-108481.1	AUUUCUUUUUUAUUGACUAUGCUG	625-647
AD-53083.1	A-108502.1	CUCUCAAGUUUUUCAUGUCUAx	849-869	A-108503.1	UAGACAUGAAAAACUUGAGAGUU	847-869
AD-53102.1	A-108524.1	AUCGAAUAGAUGGAUCACAAAx	911-931	A-108525.1	UUUGUGAUCCAUCUAUUCGAUGU	909-931
AD-53105.1	A-108572.1	ACAUUAUAUUGAAUAUUCUUUx	1077-1097	A-108573.1	AAAGAAUAUUCAAUAUAUGUUU	1075-1097
AD-53090.1	A-108520.1	UUAAUUCAACAUCGAAUAGAUx	901-921	A-108521.1	AUCUAUUCGAUGUUGAAUUAUG	899-921
AD-53010.1	A-108466.1	GAUAAUAGCAUCAAGACCUUx	565-585	A-108467.1	AAGGUCUUUGAUGCUAUUAUCUU	563-585
AD-52998.1	A-108368.1	UGACAUUUUCAAACUCAAx	258-278	A-108369.1	UUGAGUUUUUGAAUAUGUCAUU	256-278
AD-52992.1	A-108366.1	AAAUUAUUGACAUUUUCAAx	251-271	A-108367.1	UUUGAAUAUGUCAUUAAUUGG	249-271
AD-53068.1	A-108544.1	GAAGAUUAUCUCAUAGUGAAx	1005-1025	A-108545.1	UUCACUAUGGAGUAUAUCUUCUC	1003-1025
AD-53032.1	A-108442.1	AAUAUUUAGAAGAGCAACUAx	467-487	A-108443.1	UUAGUUGCUCUUCUAAAUAUUUC	465-487
AD-52967.1	A-108342.1	CGAUGUAAAAUUUAGCCAAx	174-194	A-108343.1	UUGGCUAAAAUUUUACAUCGUC	172-194
AD-53096.1	A-108522.1	UUCAACAUCGAAUAGAUGGAUx	905-925	A-108523.1	AUCCAUCUAUUCGAUGUUGAAUU	903-925
AD-53131.1	A-108612.1	GUGUGGAGAAAACAACCUAAAx	1272-1292	A-108613.1	UUUAGGUUGUUUUCUCCACACUC	1270-1292
AD-52963.1	A-108372.1	UCAACAUUUUGAUCAGUCUUx	275-295	A-108373.1	AAGACUGAUCAAUAUGUUGAGU	273-295
AD-53089.1	A-108504.1	UCAGGUAGUCCAUGGACAUUAx	883-903	A-108505.1	UAAUGUCCAUGGACUACCUGAUA	881-903
AD-53044.1	A-108446.1	UUUAGAAGAGCAACUAACUAx	471-491	A-108447.1	UUAGUUAGUUGCUCUUCUAAAUA	469-491

AD-52988.1	A-108396.1	UACAUUAAACUACAAGUCAAx	357-377	A-108397.1	UUGACUUGUAGUUUAUAUGUAG U	355-377
AD-53067.1	A-108528.1	GGAUCACAAAACUCAAUGAAx	922-942	A-108529.1	UUCAUUGAAGUUUUGUGAUCCA	920-942
AD-53009.1	A-108450.1	AGAGCAACUAAACUUAUx	477-497	A-108451.1	AUUAAGUUAGUUAGUUGCUCUUC	475-497
AD-53022.1	A-108470.1	ACCAACAGCAUAGUCAAAUAAx	620-640	A-108471.1	UUUUUUGACUAGCUGUUGGUUU	618-640
AD-53016.1	A-108468.1	AACCAACAGCAUAGUCAAAUx	619-639	A-108469.1	UAUUUGACUAGCUGUUGGUUUA	617-639
AD-53007.1	A-108418.1	GAACUCAACUAAAACUUGAAx	406-426	A-108419.1	UUCAAGUUUUGAGUUGAGUCAA	404-426
AD-53148.1	A-108634.1	UACUCUAAAAUCAACCAAx	1375-1395	A-108635.1	UUUGGUUGAUUUUAUAGAGUAUA	1373-1395
AD-53040.1	A-108476.1	CAGCAUAGUCAAAUAAAAGAAx	625-645	A-108477.1	UUCUUUUUUUGACUAGCUGUU	623-645
AD-53041.1	A-108492.1	GAAAUAAAGAAUGUAAAACAUx	748-768	A-108493.1	AUGUUUUACAUUUCUUAUUUCAU	746-768
AD-53039.1	A-108460.1	CUAACUAACUAAUUCAAAAUx	484-504	A-108461.1	AUUUUGAAUUAAGUUAGUUAGU U	482-504
AD-53139.1	A-108646.1	AUGAACUGAGGCAAAUUUAAAx	1431-1451	A-108647.1	UUUAAAUUUGCCUCAGUUCAUUC	1429-1451
AD-53144.1	A-108648.1	UGAACUGAGGCAAAUUUAAAx	1432-1452	A-108649.1	UUUUAAAUUUGCCUCAGUUCAUU	1430-1452
AD-53142.1	A-108616.1	AAACAACUAAAUGGUAAAUAx	1281-1301	A-108617.1	UAUUUACCAUUUAGGUUGUUUUC	1279-1301
AD-53108.1	A-108620.1	ACAACCUAAAUGGUAAAUAUx	1283-1303	A-108621.1	UAUAUUUACCAUUUAGGUUGUUU	1281-1303
AD-53079.1	A-108532.1	AACGUGGGAGAACUACAAUAx	942-962	A-108533.1	UAUUUGUAGUUCUCCACGUUUC	940-962
AD-53133.1	A-108644.1	AAUGAACUGAGGCAAAUUUAAx	1430-1450	A-108645.1	UUAAAUUUGCCUCAGUUCAUUA	1428-1450
AD-53104.1	A-108556.1	GUUGGAAGACUGGAAAGACAxA	1053-1073	A-108557.1	UUGUCUUUCCAGUCUCCAACUC	1051-1073
AD-53088.1	A-108582.1	UGGCAAUGUCCCCAUGCAUx	1149-1169	A-108583.1	AUUGCAUUGGGGACAUUGCCAGU	1147-1169
AD-53101.1	A-108508.1	GGUAGUCCAUGGACAUAAUx	886-906	A-108509.1	AAUUAAGUCCAUGGACUACCUG	884-906
AD-53000.1	A-108400.1	CAUAUAAACUACAAGUCAAAAx	359-379	A-108401.1	UUUUGACUUGUAGUUUAUAUGU A	357-379

AD-53112.1	A-108590.1	AAUCCCGGAAAAACAAAGAUUUx	1167-1187	A-108591.1	AAAUCUUUGUUUUCCGGGAUUGC	1165-1187
AD-53107.1	A-108604.1	CUACUUGGGAUCACAAAGCAAx	1196-1216	A-108605.1	UUGCUIUGUGAUCCCAAGUAGAA	1194-1216
AD-53121.1	A-108640.1	UGAAUGAACUGAGGCAAAUUUx	1428-1448	A-108641.1	AAAUUUGCCUCAGUUCAUUCAA	1426-1448
AD-53046.1	A-108478.1	AGCAUAGUCAAAUAAAAGAAAx	626-646	A-108479.1	UUUCUUUUUUUUGACUAUGCUGU	624-646
AD-53038.1	A-108444.1	AUUUAGAAGAGCAACUAACUAx	470-490	A-108445.1	UAGUUAGUUGCUCUUCUAAUAU	468-490
AD-53140.1	A-108662.1	AGGCAAAUUUAAAAGGCAUAx	1439-1459	A-108663.1	UAUUGCCUUUUAAAUUUGCCUCA	1437-1459
AD-52987.1	A-108380.1	CAUAUUUGAUCAGUCUUUUUAx	279-299	A-108381.1	UAAAAAGACUGAUCAAUAUGUU	277-299
AD-53130.1	A-108596.1	AAAACAAAGAUUUGGUGUUUUx	1175-1195	A-108597.1	AAAACACCAAUCUUUGUUUUCC	1173-1195
AD-53106.1	A-108588.1	CAAUCCCGGAAAAACAAAGAUUx	1166-1186	A-108589.1	AAUCUUUGUUUUCCGGGAUUGCA	1164-1186
AD-53081.1	A-108564.1	CAACAAACAUUAUAUUGAAUAx	1071-1091	A-108565.1	UAUUCAUAUAAUGUUUGUUGUC	1069-1091
AD-53118.1	A-108592.1	GGAAAAACAAAGAUUUGGUGUUx	1173-1193	A-108593.1	AACACCAAUCUUUGUUUUCCGG	1171-1193
AD-53136.1	A-108598.1	ACAAAGAUUUGGUGUUUUCUAx	1178-1198	A-108599.1	UAGAAAACACCAAUCUUUGUUU	1176-1198
AD-53127.1	A-108642.1	GAAUGAACUGAGGCAAAUUUAx	1429-1449	A-108643.1	UAAAUUUGCCUCAGUUCAUUCAA	1427-1449
AD-53066.1	A-108512.1	CCAUGGACAUUAAUUCACAUx	892-912	A-108513.1	AUGUUGAAUUAUGUCCAUGGAC	890-912
AD-53013.1	A-108420.1	AACUCAACUAAAACUUGAAAx	407-427	A-108421.1	UUUCAAGUUUUGAGUUGAGUUCA	405-427
AD-52991.1	A-108350.1	CAGUUGGGACAUGGUCUUAAX	205-225	A-108351.1	UUUAAGACCAUGUCCCAACUGAA	203-225
AD-53099.1	A-108570.1	AACAUUAUAUUGAAUAUUCUUx	1076-1096	A-108571.1	AAGAAUAUUCAAUAUAAUGUUUG	1074-1096
AD-52958.1	A-108386.1	ACCAGUGAAAUCAAAGAAGAAx	316-336	A-108387.1	UUCUUCUUUGAUUUCACUGGUUU	314-336
AD-53097.1	A-108538.1	GUUGGGCCUAGAGAAGAUUAUx	993-1013	A-108539.1	UAUAUCUUCUCUAGGCCCAACCA	991-1013
AD-52966.1	A-108326.1	CUCCAGAGCCAAAAUCAAGAUx	140-160	A-108327.1	AUCUUGAUUUUGGCUCUGGAGAU	138-160

AD-53145.1	A-108664.1	GGCAAAUUUAAAAGGCAAUAAx	1440-1460	A-108665.1	UUAUUGCCUUUUAAAUUUGCCUC	1438-1460
AD-53113.1	A-108606.1	UACUUGGGAUCACAAAGCAAx	1197-1217	A-108607.1	UUUGCUUUGUGAUCCCAAGUAGA	1195-1217
AD-52993.1	A-108382.1	GAUCAGUCUUUUUAUGAUCUAx	286-306	A-108383.1	UAGAUCAUAAAAGACUGAUCAA	284-306
AD-53031.1	A-108426.1	GAAAGCCUCCUAGAAGAAAAx	424-444	A-108427.1	UUUUUCUUCUAGGAGGCUUCAA	422-444
AD-53017.1	A-108484.1	AGUCAAUAAAAGAAUAGAAx	631-651	A-108485.1	UUCUAAUUUCUUUUAAUUGACU	629-651
AD-53143.1	A-108632.1	AUACUCUAUAAAAUCAACCAx	1374-1394	A-108633.1	UUGGUUGAUUUUAUAGAGUAUA A	1372-1394
AD-53149.1	A-108650.1	GAACUGAGGCAAAUUUAAAAx	1433-1453	A-108651.1	UUUUUAAAUUUGCCUCAGUUCAU	1431-1453_G21A
AD-53059.1	A-108494.1	AGACCCAGCAACUCUCAAGUUx	838-858	A-108495.1	AACUUGAGAGUUGCUGGGUCUGA	836-858
AD-53006.1	A-108402.1	AUAUAAACUACAAGUCAAAAAx	360-380	A-108403.1	UUUUUGACUUGUAGUUUAUUG U	358-380
AD-53025.1	A-108424.1	UGAAAGCCUCCUAGAAGAAAx	423-443	A-108425.1	UUUUCUUCUAGGAGGCUUCAAAG	421-443
AD-53085.1	A-108534.1	GGGAGAACUACAAUAUGGUUx	947-967	A-108535.1	AACCAUAAUUGUAGUUCUCCAC	945-967
AD-52984.1	A-108332.1	AGAUUUGCUAUGUUGAGCAUx	157-177	A-108333.1	AUCGUCUACAUAGCAAAUCUUG	155-177
AD-53023.1	A-108486.1	GAACCCACAGAAAUUUCUCUAx	679-699	A-108487.1	UAGAGAAAUUCUGUGGGUUCUU	677-699
AD-53014.1	A-108436.1	ACUUCAACAAAAAGUGAAUAx	450-470	A-108437.1	UAUUUCACUUUUUGUUGAAGUAG	448-470
AD-53060.1	A-108510.1	AGUCCAUGGACAUAAUUCAAx	889-909	A-108511.1	UUGAAUAAUUGUCCAUGGACUAC	887-909
AD-53110.1	A-108652.1	AACUGAGGCAAAUUUAAAAGAx	1434-1454	A-108653.1	UCUUUAAAUUUGCCUCAGUUCA	1432-1454_G21A
AD-52980.1	A-108362.1	GGGCCAAAUAAUGACAUUUUx	246-266	A-108363.1	AAUAUGUCAUAAUUGGCCCUU	244-266
AD-53109.1	A-108636.1	AUCCAUCCAACAGAUUCAGAAx	1402-1422	A-108637.1	UUCUGAAUCUGUUGGAUGGAUCA	1400-1422
AD-53141.1	A-108600.1	AAGAUUUGGUGUUUUCUACUUx	1181-1201	A-108601.1	AAGUAGAAAACACCAAUCUUUG	1179-1201
AD-53126.1	A-108626.1	GUCUCAAAAUUGGAAGGUUAUx	1356-1376	A-108627.1	UAUAACCUCCAUUUUGAGACUU	1354-1376

AD-53116.1	A-108654.1	ACUGAGGCAAAUUUAAAAGGAx	1435-1455	A-108655.1	UCCUUUUAAAAUUUGCCUCAGUUC	1433-1455_C21A
AD-52997.1	A-108352.1	GGGACAUGGUCUUAAGACUUx	210-230	A-108353.1	AAGUCUUUAAGACCAUGUCCAA	208-230
AD-53120.1	A-108624.1	AUGGUAAAUAUAACAAACCAAx	1292-1312	A-108625.1	UUUGUUUUGUUUAUUUACCAUU U	1290-1312
AD-53070.1	A-108576.1	GGGAAAUCACGAAACCAACUAx	1104-1124	A-108577.1	UAGUUGGUUUCGUGAUUUCCCAA	1102-1124
AD-53028.1	A-108472.1	CCAACAGCAUAGUCAAAUAAAx	621-641	A-108473.1	UUUAUUUGACUAUGCUGUUGGUU	619-641
AD-53146.1	A-108602.1	UUUUCUACUUGGGAUCACAAAx	1192-1212	A-108603.1	UUUGUGAUCCCAAGUAGAAAACA	1190-1212
AD-52982.1	A-108394.1	AGAACUACAUUAAAACUACAAx	352-372	A-108395.1	UUGUAGUUUAUAGUAGUUCUU C	350-372
AD-53111.1	A-108668.1	AGAGUAUGUGUAAAAUCUGUx	1915-1935	A-108669.1	ACAGAUUUUUACACAUACUCUGU	1913-1935
AD-53045.1	A-108462.1	AAAACAAGAUAAUAGCAUCAAx	558-578	A-108463.1	UUGAUGCUAUUAUCUUGUUUUUC	556-578
AD-53123.1	A-108672.1	AGUAUGUGUAAAAUCUGUAAx	1917-1937	A-108673.1	UUACAGAUUUUUACACAUACUCU	1915-1937
AD-53018.1	A-108406.1	AGUCAAAAAUGAAGAGGUAAAx	372-392	A-108407.1	UUUACCUCUUCAUUUUUGACUUG	370-392
AD-52956.1	A-108354.1	GGACAUGGUCUUAAGACUUUx	211-231	A-108355.1	AAAGUCUUUAAGACCAUGUCCCA	209-231
AD-53134.1	A-108660.1	GAGGCAAAUUUAAAAGGCAUx	1438-1458	A-108661.1	AUUGCCUUUUAAAAUUUGCCUCAG	1436-1458
AD-52968.1	A-108358.1	GUCUUAAAGACUUUGUCCAUAx	218-238	A-108359.1	UAUGGACAAAGUCUUUAAGACCA	216-238
AD-53122.1	A-108656.1	CUGAGGCAAAUUUAAAAGGCAx	1436-1456	A-108657.1	UGCCUUUUAAAAUUUGCCUCAGUU	1434-1456
AD-53100.1	A-108586.1	GCAAUCCCGGAAAACAAAGAUx	1165-1185	A-108587.1	AUCUUUGUUUCCGGGAUUGCAU	1163-1185
AD-53128.1	A-108658.1	UGAGGCAAAUUUAAAAGGCAAx	1437-1457	A-108659.1	UUGCCUUUUAAAAUUUGCCUCAGU	1435-1457
AD-53043.1	A-108430.1	UCUACUUCAACAAAAAGUGAAx	447-467	A-108431.1	UUCACUUUUUGUUGAAGUAGAAU	445-467
AD-53135.1	A-108676.1	UAUGUGUAAAAUCUGUAAUAx	1919-1939	A-108677.1	UAUUACAGAUUUUUACACAUACU	1917-1939
AD-53094.1	A-108584.1	AAUGCAAUCCCGGAAAACAAAx	1162-1182	A-108585.1	UUUGUUUUCGGGAUUGCAUUG G	1160-1182

AD-53019.1	A-108422.1	CUUGAAAGCCUCCUAGAAGAAx	421-441	A-108423.1	UUCUUCUAGGAGGCUUUCAGUU	419-441
AD-53129.1	A-108674.1	GUAUGUGUAAAAUCUGUAAUx	1918-1938	A-108675.1	AUUACAGAUUUUUACACAUACUC	1916-1938
AD-53150.1	A-108666.1	CAGAGUAUGUGUAAAAUCUUx	1914-1934	A-108667.1	AAGAUUUUUACACAUACUCUGUG	1912-1934_G21U
AD-53117.1	A-108670.1	GAGUAUGUGUAAAAUCUGUAx	1916-1936	A-108671.1	UACAGAUUUUUACACAUACUCUG	1914-1936
AD-52985.1	A-108348.1	UCAGUUGGGACAUGGUCUUAx	204-224	A-108349.1	UUAAGACCAUGUCCCAACUGAAG	202-224
AD-52962.1	A-108356.1	GGUCUUAAGACUUUGUCCAUX	217-237	A-108357.1	AUGGACAAAGUCUUUAAGACCAU	215-237
AD-52974.1	A-108360.1	UCUUAAGACUUUGUCCAUAx	219-239	A-108361.1	UUAUGGACAAAGUCUUUAAGACC	217-239
AD-52979.1	A-108346.1	UUCAGUUGGGACAUGGUCUUAx	203-223	A-108347.1	UAAGACCAUGUCCCAACUGAAGG	201-223

The symbol “x” indicates that the sequence contains a GalNAc conjugate.

Table 8. Modified sense and antisense strand sequences of ANGPTL3 GalNac-conjugated dsRNAs

Duplex ID	Sense OligoName	Sense Sequence (SEQ ID NOS 634-818, respectively, in order of appearance)	Antisense OligoName	Antisense Sequence (SEQ ID NOS 819-1003, respectively, in order of appearance)
AD-53063.1	A-108558.1	AfaAfgAfcAfaCfAfAfaCfaUfuAfuAfuUfL96	A-108559.1	aAfuAfuAfaUfgUfuugUfuGfuCfuUfusCfsc
AD-52965.1	A-108310.1	AfcAfaUfuAfaGfCfUfcCfuUfcUfuUfuUfL96	A-108311.1	aAfaAfaGfaAfgGfagcUfuAfaUfuGfusGfsa
AD-53030.1	A-108410.1	UfgUfcAfcUfuGfAfAfcUfcAfaCfuCfaAfL96	A-108411.1	uUfgAfgUfuGfaGfuucAfaGfuGfaCfasUfsa
AD-52953.1	A-108306.1	UfcAfcAfaUfuAfAfGfcUfcCfuUfcUfuUfL96	A-108307.1	aAfaGfaAfgGfaGfcuuAfaUfuGfuGfasAfsc
AD-53001.1	A-108416.1	CfuUfgAfaCfuCfAfAfcUfcAfaAfaCfuUfL96	A-108417.1	aAfgUfuUfuGfaGfuugAfgUfuCfaAfgsUfsg
AD-53080.1	A-108548.1	CfuCfcAfuAfgUfGfAfaGfcAfaUfcUfaAfL96	A-108549.1	uUfaGfaUfuGfcUfucaCfuAfuGfgAfgsUfsa
AD-52971.1	A-108312.1	CfaAfuUfaAfgCfUfCfcUfuCfuUfuUfuAfL96	A-108313.1	uAfaAfaAfgAfaGfgagCfuUfaAfuUfgsUfsg
AD-53071.1	A-108498.1	AfcCfcAfgCfaAfCfUfcUfcAfaGfuUfuUfL96	A-108499.1	aAfaAfcUfuGfaGfaguUfgCfuGfgGfusCfsu
AD-53024.1	A-108408.1	GfaAfuAfuGfuCfAfCfuUfgAfaCfuCfaAfL96	A-108409.1	uUfgAfgUfuCfaAfgugAfcAfuAfuUfcsUfsu
AD-52977.1	A-108314.1	AfaUfuAfaGfcUfCfCfuUfcUfuUfuUfaUfL96	A-108315.1	aUfaAfaAfaGfaAfggaGfcUfuAfaUfusGfsu
AD-53064.1	A-108574.1	CfaUfuAfuAfuUfGfAfaUfaUfuCfuUfuUfL96	A-108575.1	aAfaAfgAfaUfaUfucaAfuAfuAfaUfgsUfsu
AD-53033.1	A-108458.1	AfcUfaAfcUfaAfCfUfuAfaUfuCfaAfaAfL96	A-108459.1	uUfuUfgAfaUfuAfaguUfaGfuUfaGfusUfsg
AD-52954.1	A-108322.1	UfuAfuUfgUfuCfCfUfcUfaGfuUfaUfuUfL96	A-108323.1	aAfaUfaAfcUfaGfaggAfaCfaAfuAfasAfsa
AD-53098.1	A-108554.1	CfaUfaGfuGfaAfGfCfaAfuCfuAfaUfuAfL96	A-108555.1	uAfaUfuAfgAfuUfgcuUfcAfcUfaUfgsGfsa
AD-53092.1	A-108552.1	CfcAfuAfgUfgAfAfGfcAfaUfcUfaAfuUfL96	A-108553.1	aAfuUfaGfaUfuGfcuuCfaCfuAfuGfgsAfsa
AD-53073.1	A-108530.1	GfaUfcAfcAfaAfAfCfuUfcAfaUfgAfaAfL96	A-108531.1	uUfuCfaUfuGfaAfguuUfuGfuGfaUfcsCfsa
AD-53132.1	A-108628.1	AfuGfgAfaGfgUfUfAfuAfcUfcUfaUfaAfL96	A-108629.1	uUfaUfaGfaGfuAfuaaCfcUfuCfcAfusUfsu

AD-53086.1	A-108550.1	UfcCfaUfaGfuGfAfAfgCfaAfuCfuAfaUfL96	A-108551.1	aUfuAfgAfuUfgCfuucAfcUfaUfgGfasGfsu
AD-52961.1	A-108340.1	CfuAfuGfuUfaGfAfCfGfuAfuGfuAfaAfaL96	A-108341.1	uUfuUfuAfcAfuCfGucUfaAfcAfuAfgsCfsa
AD-52983.1	A-108316.1	AfuUfaAfgCfuCfCfUfuCfuUfuUfuAfuUfL96	A-108317.1	aAfuAfaAfaAfgAfggAfgCfuUfaAfusUfsg
AD-53027.1	A-108456.1	AfaCfuAfaCfuAfAfCfuUfaAfuUfcAfaAfL96	A-108457.1	uUfuGfaAfuUfaAfguuAfgUfuAfgUfusGfsc
AD-52986.1	A-108364.1	GfgCfcAfaAfuUfAfAfuGfaCfaUfaUfuUfL96	A-108365.1	aAfaUfaUfgUfcAfuuaAfuUfuGfgCfcsCfsu
AD-52989.1	A-108318.1	UfuUfuAfuUfgUfUfCfcUfcUfaGfuUfaUfL96	A-108319.1	aUfaAfcUfaGfaGfgaaCfaAfuAfaAfasAfsG
AD-52981.1	A-108378.1	AfcAfuAfuUfuGfAfUfcAfgUfcUfuUfuUfL96	A-108379.1	aAfaAfaGfaCfuGfaucAfaAfuAfuGfusUfsg
AD-53077.1	A-108500.1	CfcCfaGfcAfaCfUfCfuCfaAfgUfuUfuUfL96	A-108501.1	aAfaAfaCfuUfgAfgagUfuGfcUfgGfgsUfsc
AD-53095.1	A-108506.1	CfaGfgUfaGfuCfCfAfuGfgAfcAfuUfaAfL96	A-108507.1	uUfaAfuGfuCfcAfuggAfcUfaCfcUfGsAfsu
AD-52970.1	A-108390.1	AfcUfgAfgAfaGfAfAfcUfaCfaUfaUfaAfL96	A-108391.1	uUfaUfaUfgUfaGfuucUfuCfuCfaGfusUfsc
AD-53015.1	A-108452.1	GfaGfcAfaCfuAfAfCfuAfaCfuUfaAfuUfL96	A-108453.1	aAfuUfaAfgUfuAfguuAfgUfuGfcUfcsUfsu
AD-53147.1	A-108618.1	AfaCfaAfcCfuAfAfAfuGfgUfaAfaUfaUfL96	A-108619.1	aUfaUfuUfaCfcAfuuuAfgGfuUfgUfusUfsu
AD-53103.1	A-108540.1	CfcUfaGfaGfaAfGfAfuAfuAfcUfcCfaUfL96	A-108541.1	aUfgGfaGfuAfuAfucuUfcUfcUfaGfgsCfsc
AD-52969.1	A-108374.1	CfaAfcAfuAfuUfUfGfaUfcAfgUfcUfuUfL96	A-108375.1	aAfaGfaCfuGfaUfcaaAfuAfuGfuUfgsAfsG
AD-53075.1	A-108562.1	AfcAfaCfaAfaCfAfUfuAfuAfuUfgAfaUfL96	A-108563.1	aUfuCfaAfuAfuAfaugUfuUfgUfuGfusCfsu
AD-52994.1	A-108398.1	AfcAfuAfuAfaAfCfUfaCfaAfgUfcAfaAfL96	A-108399.1	uUfuGfaCfuUfgUfaguUfuAfuAfuGfusAfsG
AD-52960.1	A-108324.1	CfuAfgUfuAfuUfUfCfcUfcCfaGfaAfuUfL96	A-108325.1	aAfuUfcUfgGfaGfgaaAfuAfaCfuAfgsAfsG
AD-53003.1	A-108448.1	AfaGfaGfcAfaCfUfAfaCfuAfaCfuUfaAfL96	A-108449.1	uUfaAfgUfuAfgUfuagUfuGfcUfcUfusCfsu
AD-52995.1	A-108320.1	UfuUfaUfuGfuUfCfCfuCfuAfgUfuAfuUfL96	A-108321.1	aAfuAfaCfuAfgAfggaAfcAfaUfaAfasAfsa
AD-53037.1	A-108428.1	CfuCfcUfaGfaAfGfAfaAfaAfaUfuCfuAfL96	A-108429.1	uAfgAfaUfuUfuUfucuUfcUfaGfgAfgsGfsc

AD-53087.1	A-108566.1	AfaCfaAfaCfaUfUfAfuAfuUfgAfaUfaUfL96	A-108567.1	aUfaUfuCfaAfuAfuaaUfgUfuUfgUfusGfsu
AD-53076.1	A-108578.1	GfgAfaAfuCfaCfGfAfaAfcCfaAfcUfaUfL96	A-108579.1	aUfaGfuUfgGfuUfucgUfgAfuUfuCfcsCfsa
AD-52975.1	A-108376.1	AfaCfaUfaUfuUfGfAfuCfaGfuCfuUfuUfL96	A-108377.1	aAfaAfgAfcUfgAfucaAfaUfaUfgUfusGfsa
AD-53138.1	A-108630.1	UfgGfaAfgGfuUfAfUfaCfuCfuAfuAfaAfL96	A-108631.1	uUfuAfuAfgAfgUfaaaAfcCfuUfcCfasUfsu
AD-53091.1	A-108536.1	GfgAfgAfaCfuAfCfAfaAfuAfuGfgUfuUfL96	A-108537.1	aAfaCfcAfuAfuUfuguAfgUfuCfuCfcsCfsa
AD-53124.1	A-108594.1	GfaAfaAfcAfaAfGfAfuUfuGfgUfgUfuUfL96	A-108595.1	aAfaCfaCfcAfaAfucuUfuGfuUfuUfcsCfsg
AD-53125.1	A-108610.1	AfgUfgUfgGfaGfAfAfaAfcAfaCfcUfaAfL96	A-108611.1	uUfaGfgUfuGfuUfuucUfcCfaCfaCfusCfsa
AD-53036.1	A-108412.1	GfuCfaCfuUfgAfAfCfuCfaAfcUfcAfaAfL96	A-108413.1	uUfuGfaGfuUfgAfguuCfaAfgUfgAfcsAfsu
AD-53061.1	A-108526.1	GfaUfgGfaUfcAfCfAfaAfaCfuUfcAfaUfL96	A-108527.1	aUfuGfaAfgUfuUfuguGfaUfcCfaUfcsUfsa
AD-53093.1	A-108568.1	AfcAfaAfcAfuUfAfUfaUfuGfaAfuAfuUfL96	A-108569.1	aAfuAfuUfcAfaUfaaaAfuGfuUfuGfusUfsg
AD-53137.1	A-108614.1	UfgUfgGfaGfaAfAfAfcAfaCfcUfaAfaUfL96	A-108615.1	aUfuUfaGfgUfuGfuuuUfcUfcCfaCfasCfsu
AD-52999.1	A-108384.1	AfuCfaGfuCfuUfUfUfuAfuGfaUfcUfaUfL96	A-108385.1	aUfaGfaUfcAfuAfaaaAfgAfcUfgAfusCfsa
AD-53069.1	A-108560.1	GfaCfaAfcAfaAfCfAfuUfaUfaUfuGfaAfL96	A-108561.1	uUfcAfaUfaUfaAfuguUfuGfuUfgUfcsUfsu
AD-53034.1	A-108474.1	CfaAfcAfgCfaUfAfGfuCfaAfaUfaAfaAfL96	A-108475.1	uUfuUfaUfuUfgAfcuaUfgCfuGfuUfgsGfsu
AD-52976.1	A-108392.1	CfuGfaGfaAfgAfAfCfuAfcAfuAfuAfaAfL96	A-108393.1	uUfuAfuAfuGfuAfguuCfuUfcUfcAfgsUfsu
AD-52996.1	A-108336.1	UfgCfuAfuGfuUfAfGfaCfgAfuGfuAfaAfL96	A-108337.1	uUfuAfcAfuCfgUfcuaAfcAfuAfgCfasAfsa
AD-53029.1	A-108488.1	AfaCfcCfaCfaGfAfAfaUfuUfcUfcUfaUfL96	A-108489.1	aUfaGfaGfaAfaUfuucUfgUfgGfgUfusCfsu
AD-53020.1	A-108438.1	CfuUfcAfaCfaAfAfAfaGfuGfaAfaUfaUfL96	A-108439.1	aUfaUfuUfcAfcUfuuuUfgUfuGfaAfgsUfsa
AD-53042.1	A-108414.1	UfcAfcUfuGfaAfCfUfcAfaCfuCfaAfaAfL96	A-108415.1	uUfuUfgAfgUfuGfaguUfcAfaGfuGfasCfsa
AD-53011.1	A-108482.1	CfaUfaGfuCfaAfAfUfaAfaAfgAfaAfuAfL96	A-108483.1	uAfuUfuCfuUfuUfauuUfgAfcUfaUfgsCfsu

AD-52957.1	A-108370.1	CfaAfaAfaCfuCfAfAfcAfuAfuUfuGfaUfL96	A-108371.1	aUfcAfaAfuAfuGfuugAfgUfuUfuUfsgAfsa
AD-53008.1	A-108434.1	UfaCfuUfcAfaCfAfAfaAfaGfuGfaAfaUfL96	A-108435.1	aUfuUfcAfcUfuUfuugUfuGfaAfgUfasGfsa
AD-53065.1	A-108496.1	GfaCfcCfaGfcAfAfCfuCfuCfaAfgUfuUfL96	A-108497.1	aAfaCfuUfgAfgAfguuGfcUfgGfgUfcsUfsg
AD-53115.1	A-108638.1	UfuGfaAfuGfaAfCfUfgAfgGfcAfaAfuUfL96	A-108639.1	aAfuUfuGfcCfuCfaguUfcAfuUfcAfasAfsg
AD-53012.1	A-108404.1	UfaUfaAfaCfuAfCfAfaGfuCfaAfaAfaUfL96	A-108405.1	aUfuUfuUfgAfcUfuguAfgUfuUfaUfasUfsg
AD-53004.1	A-108464.1	AfaAfcAfaGfaUfAfAfuAfgCfaUfcAfaAfL96	A-108465.1	uUfuGfaUfgCfuAfuuaUfcUfuGfuUfusUfsu
AD-53021.1	A-108454.1	CfaAfcUfaAfcUfAfAfcUfuAfaUfuCfaAfL96	A-108455.1	uUfgAfaUfuAfaGfuuaGfuUfaGfuUfsgCfsu
AD-52955.1	A-108338.1	GfcUfaUfgUfuAfGfAfcGfaUfgUfaAfaAfL96	A-108339.1	uUfuUfaCfaUfcGfucuAfaCfaUfaGfcsAfsa
AD-53119.1	A-108608.1	AfcUfuGfgGfaUfCfAfcAfaAfgCfaAfaAfL96	A-108609.1	uUfuUfgCfuUfuGfugaUfcCfcAfaGfusAfsg
AD-52990.1	A-108334.1	UfuGfcUfaUfgUfUfAfgAfcGfaUfgUfaAfL96	A-108335.1	uUfaCfaUfcGfuCfuuaCfaUfaGfcAfasAfsu
AD-52964.1	A-108388.1	AfaCfuGfaGfaAfGfAfaCfuAfcAfuAfuAfL96	A-108389.1	uAfuAfuGfuAfgUfucuUfcUfcAfgUfusCfsc
AD-52973.1	A-108344.1	GfaUfgUfaAfaAfAfUfuUfuAfgCfcAfaUfL96	A-108345.1	aUfuGfgCfuAfaAfauuUfuUfaCfaUfcsGfsu
AD-53074.1	A-108546.1	AfcUfcCfaUfaGfUfGfaAfgCfaAfuCfuAfL96	A-108547.1	uAfgAfuUfgCfuUfcacUfaUfgGfaGfusAfsu
AD-53026.1	A-108440.1	UfuCfaAfcAfaAfAfAfgUfgAfaAfuAfuUfL96	A-108441.1	aAfuAfuUfuCfaCfuuuUfuGfuUfgAfasGfsu
AD-53062.1	A-108542.1	CfuAfgAfgAfaGfAfUfaUfaCfuCfcAfuAfL96	A-108543.1	uAfuGfgAfgUfaUfaucUfuCfuCfuAfgsGfsc
AD-53114.1	A-108622.1	CfaAfcCfuAfaAfUfGfgUfaAfaUfaUfaAfL96	A-108623.1	uUfaUfaUfuUfaCfcauUfuAfgGfuUfsgUfsu
AD-53082.1	A-108580.1	GfaAfaUfcAfcGfAfAfaCfcAfaCfuAfuAfL96	A-108581.1	uAfuAfgUfuGfgUfuucGfuGfaUfuUfcsCfsc
AD-53035.1	A-108490.1	CfcAfcAfgAfaAfUfUfuCfuCfuAfuCfuUfL96	A-108491.1	aAfgAfuAfgAfgAfaauUfuCfuGfuGfsgGfsu
AD-52978.1	A-108330.1	AfaAfuCfaAfgAfUfUfuGfcUfaUfgUfuAfL96	A-108331.1	uAfaCfaUfaGfcAfaauCfuUfgAfuUfusUfsg
AD-53084.1	A-108518.1	AfcAfuUfaAfuUfCfAfaCfaUfcGfaAfuAfL96	A-108519.1	uAfuUfcGfaUfgUfugaAfuUfaAfuGfusCfsc

AD-52972.1	A-108328.1	CfcAfgAfgCfcAfAfAfaUfcAfaGfaUfuUfL96	A-108329.1	aAfaUfcUfuGfaUfuuuGfgCfuCfuGfgsAfsG
AD-53002.1	A-108432.1	CfuAfcUfuCfaAfCfAfaAfaAfgUfgAfaAfL96	A-108433.1	uUfuCfaCfuUfuUfuguUfgAfaGfuAfgsAfsa
AD-53078.1	A-108516.1	GfaCfaUfuAfaUfUfCfaAfcAfuCfGfaUfL96	A-108517.1	aUfuCfGfaUfuUfgaaUfuAfaUfgUfcsCfsa
AD-53072.1	A-108514.1	GfgAfcAfuUfaAfUfUfcAfaCfaUfcGfaAfL96	A-108515.1	uUfcGfaUfgUfuGfaaUfaAfuGfuCfcsAfsu
AD-53005.1	A-108480.1	GfcAfuAfgUfcAfAfAfuAfaAfaGfaAfaUfL96	A-108481.1	aUfuUfcUfuUfuAfuuuGfaCfuAfuGfcsUfsg
AD-53083.1	A-108502.1	CfuCfuCfaAfgUfUfUfuUfcAfuGfuCfuAfL96	A-108503.1	uAfgAfcAfuGfaAfaaaCfuUfgAfgAfgsUfsu
AD-53102.1	A-108524.1	AfuCfGfaUfaGfAfUfgGfaUfcAfcAfaAfL96	A-108525.1	uUfuGfuGfaUfcCfaucUfaUfuCfGfaUfsGfsu
AD-53105.1	A-108572.1	AfcAfuUfaUfaUfUfGfaAfuAfuUfcUfuUfL96	A-108573.1	aAfaGfaAfuAfuUfcaaUfaUfaAfuGfusUfsu
AD-53090.1	A-108520.1	UfuAfaUfuCfaAfCfAfuCfGfaUfaGfaUfL96	A-108521.1	aUfcUfaUfuCfGfaUfuUfgAfaUfuAfasUfsg
AD-53010.1	A-108466.1	GfaUfaAfuAfgCfAfUfcAfaAfgAfcCfuUfL96	A-108467.1	aAfgGfuCfuUfuGfaugCfuAfuUfaUfcsUfsu
AD-52998.1	A-108368.1	UfgAfcAfuAfuUfUfCfaAfaAfaCfuCfaAfL96	A-108369.1	uUfgAfgUfuUfuUfgaaAfuAfuGfuCfasUfsu
AD-52992.1	A-108366.1	AfaAfuUfaAfuGfAfCfaUfaUfuUfcAfaAfL96	A-108367.1	uUfuGfaAfaUfaUfgucAfuUfaAfuUfusGfsg
AD-53068.1	A-108544.1	GfaAfgAfuAfuAfcUfcCfaUfaGfuGfaAfL96	A-108545.1	uUfcAfcUfaUfgGfaguAfuAfuCfuUfcsUfsc
AD-53032.1	A-108442.1	AfaUfaUfuUfaGfAfAfgAfgCfaAfcUfaAfL96	A-108443.1	uUfaGfuUfgCfuCfuucUfaAfaUfaUfusUfsc
AD-52967.1	A-108342.1	CfgAfuGfuAfaAfAfAfuUfuUfaGfcCfaAfL96	A-108343.1	uUfgGfcUfaAfaAfuuuUfuAfcAfuCfGfsUfsc
AD-53096.1	A-108522.1	UfuCfaAfcAfuCfGfAfaUfaGfaUfgGfaUfL96	A-108523.1	aUfcCfaUfcUfaUfucgAfuGfuUfgAfasUfsu
AD-53131.1	A-108612.1	GfuGfuGfgAfgAfAfAfaCfaAfcCfuAfaAfL96	A-108613.1	uUfuAfgGfuUfgUfuuuCfuCfcAfcAfcUfsc
AD-52963.1	A-108372.1	UfcAfaCfaUfaUfUfUfgAfuCfaGfuCfuUfL96	A-108373.1	aAfgAfcUfgAfuCfaaaUfaUfgUfuGfasGfsu
AD-53089.1	A-108504.1	UfcAfgGfuAfgUfCfCfaUfgGfaCfaUfuAfL96	A-108505.1	uAfaUfgUfcCfaUfggaCfuAfcCfuGfasUfsa
AD-53044.1	A-108446.1	UfuUfaGfaAfgAfGfCfaAfcUfaAfcUfaAfL96	A-108447.1	uUfaGfuUfaGfuUfgcuCfuUfcUfaAfasUfsa

AD-52988.1	A-108396.1	UfaCfaUfaUfaAfAfCfuAfcAfaGfuCfaAfL96	A-108397.1	uUfgAfcUfuGfuAfguuUfaUfaUfgUfasGfsu
AD-53067.1	A-108528.1	GfgAfuCfaCfaAfAfAfcUfuCfaAfuGfaAfL96	A-108529.1	uUfcAfuUfgAfaGfuuuUfgUfgAfuCfcsAfsu
AD-53009.1	A-108450.1	AfgAfgCfaAfcUfAfAfcUfaAfcUfuAfaUfL96	A-108451.1	aUfuAfaGfuUfaGfuuaGfuUfgCfuCfusUfsc
AD-53022.1	A-108470.1	AfcCfaAfcAfgCfAfUfaGfuCfaAfaUfaAfL96	A-108471.1	uUfaUfuUfgAfcUfaugCfuGfuUfgGfusUfsu
AD-53016.1	A-108468.1	AfaCfcAfaCfaGfCfAfuAfgUfcAfaAfuAfL96	A-108469.1	uAfuUfuGfaCfuAfugcUfgUfuGfgUfusUfsa
AD-53007.1	A-108418.1	GfaAfcUfcAfaCfUfCfaAfaAfcUfuGfaAfL96	A-108419.1	uUfcAfaGfuUfuUfgagUfuGfaGfuUfcsAfsa
AD-53148.1	A-108634.1	UfaCfuCfuAfuAfAfAfaUfcAfaCfcAfaAfL96	A-108635.1	uUfuGfgUfuGfaUfuuuAfuAfgAfgUfasUfsa
AD-53040.1	A-108476.1	CfaGfcAfuAfgUfCfAfaAfuAfaAfaGfaAfL96	A-108477.1	uUfcUfuUfuAfuUfugaCfuAfuGfcUfcsUfsu
AD-53041.1	A-108492.1	GfaAfaUfaAfgAfAfAfuGfuAfaAfaCfaUfL96	A-108493.1	aUfgUfuUfuAfcAfuuuCfuUfaUfuUfcsAfsu
AD-53039.1	A-108460.1	CfuAfaCfuAfaCfUfUfaAfuUfcAfaAfaUfL96	A-108461.1	aUfuUfuGfaAfuUfaagUfuAfgUfuAfgsUfsu
AD-53139.1	A-108646.1	AfuGfaAfcUfgAfGfGfcAfaAfuUfuAfaAfL96	A-108647.1	uUfuAfaAfuUfuGfccuCfaGfuUfcAfusUfsc
AD-53144.1	A-108648.1	UfgAfaCfuGfaGfGfCfaAfaUfuUfaAfaAfL96	A-108649.1	uUfuUfaAfaUfuUfgccUfcAfgUfuCfasUfsu
AD-53142.1	A-108616.1	AfaAfcAfaCfcUfAfAfaUfgGfuAfaAfuAfL96	A-108617.1	uAfuUfuAfcCfaUfuuaGfgUfuGfuUfusUfsc
AD-53108.1	A-108620.1	AfcAfaCfcUfaAfAfUfgGfuAfaAfuAfuAfL96	A-108621.1	uAfuAfuUfuAfcCfauuUfaGfgUfuGfusUfsu
AD-53079.1	A-108532.1	AfaCfgUfgGfgAfGfAfaCfuAfcAfaAfuAfL96	A-108533.1	uAfuUfuGfuAfgUfucuCfcCfaCfGufusUfsc
AD-53133.1	A-108644.1	AfaUfgAfaCfuGfAfGfgCfaAfaUfuUfaAfL96	A-108645.1	uUfaAfaUfuUfgCfcucAfgUfuCfaUfusCfsa
AD-53104.1	A-108556.1	GfuUfgGfaAfgAfCfUfgGfaAfaGfaCfaAfL96	A-108557.1	uUfgUfcUfuUfcCfaguCfuUfcCfaAfcUfsc
AD-53088.1	A-108582.1	UfgGfcAfaUfgUfCfCfcCfaAfuGfcAfaUfL96	A-108583.1	aUfuGfcAfuUfgGfggaCfaUfuGfcCfasGfsu
AD-53101.1	A-108508.1	GfgUfaGfuCfcAfUfGfgAfcAfuUfaAfuUfL96	A-108509.1	aAfuUfaAfuGfuCfcauGfgAfcUfaCfcsUfsg
AD-53000.1	A-108400.1	CfaUfaUfaAfaCfUfAfcAfaGfuCfaAfaAfL96	A-108401.1	uUfuUfgAfcUfuGfuagUfuUfaUfaUfcsUfsa

AD-53112.1	A-108590.1	AfaUfcCfcGfgAfAfAfaCfaAfaGfaUfuUfL96	A-108591.1	aAfaUfcUfuUfgUfuuuCfcGfgGfaUfusGfsc
AD-53107.1	A-108604.1	CfuAfcUfuGfgGfAfUfcAfaAfgCfaAfL96	A-108605.1	uUfgCfuUfuGfuGfaucCfcAfaGfuAfgsAfsa
AD-53121.1	A-108640.1	UfgAfaUfgAfaCfUfGfaGfgCfaAfaUfuUfL96	A-108641.1	aAfaUfuUfgCfcUfcagUfuCfaUfuCfasAfsa
AD-53046.1	A-108478.1	AfgCfaUfaGfuCfAfAfaUfaAfaAfgAfaAfL96	A-108479.1	uUfuCfuUfuUfaUfuugAfcUfaUfgCfusGfsu
AD-53038.1	A-108444.1	AfuUfuAfgAfaGfAfGfcAfaCfuAfaCfuAfL96	A-108445.1	uAfgUfuAfgUfuGfcucUfuCfuAfaAfusAfsu
AD-53140.1	A-108662.1	AfgGfcAfaAfuUfUfAfaAfaGfgCfaAfuAfL96	A-108663.1	uAfuUfgCfcUfuUfuuaAfuUfuGfcCfusCfsa
AD-52987.1	A-108380.1	CfaUfaUfuUfgAfUfCfaGfuCfuUfuUfuAfL96	A-108381.1	uAfaAfaAfgAfcUfgauCfaAfaUfaUfgsUfsu
AD-53130.1	A-108596.1	AfaAfaCfaAfaGfAfUfuUfgGfuGfuUfuUfL96	A-108597.1	aAfaAfcAfcCfaAfaucUfuUfgUfuUfusCfsc
AD-53106.1	A-108588.1	CfaAfuCfcCfGfAfAfaAfcAfaAfgAfuUfL96	A-108589.1	aAfuCfuUfuGfuUfuucCfGfgAfuUfgsCfsa
AD-53081.1	A-108564.1	CfaAfcAfaAfcAfUfUfaUfaUfuGfaAfuAfL96	A-108565.1	uAfuUfcAfaUfaUfaauGfuUfuGfuUfgsUfsc
AD-53118.1	A-108592.1	GfgAfaAfaCfaAfAfGfaUfuUfgGfuGfuUfL96	A-108593.1	aAfcAfcCfaAfaUfcuuUfgUfuUfuCfcsGfsg
AD-53136.1	A-108598.1	AfcAfaAfgAfuUfUfGfgUfgUfuUfuCfuAfL96	A-108599.1	uAfgAfaAfaCfaCfaaAfuCfuUfuGfusUfsu
AD-53127.1	A-108642.1	GfaAfuGfaAfcUfGfAfgGfcAfaAfuUfuAfL96	A-108643.1	uAfaAfuUfuGfcCfucaGfuUfcAfuUfcsAfsa
AD-53066.1	A-108512.1	CfcAfuGfgAfcAfUfUfaAfuUfcAfaCfaUfL96	A-108513.1	aUfgUfuGfaAfuUfaauGfuCfcAfuGfgsAfsc
AD-53013.1	A-108420.1	AfaCfuCfaAfcUfCfAfaAfaCfuUfgAfaAfL96	A-108421.1	uUfuCfaAfgUfuUfugaGfuUfgAfgUfusCfsa
AD-52991.1	A-108350.1	CfaGfuUfgGfgAfCfAfuGfgUfcUfuAfaAfL96	A-108351.1	uUfuAfaGfaCfcAfuguCfcCfaAfcUfgsAfsa
AD-53099.1	A-108570.1	AfaCfaUfuAfuAfUfUfgAfaUfaUfuCfuUfL96	A-108571.1	aAfgAfaUfaUfuCfaauAfuAfaUfgUfusUfsg
AD-52958.1	A-108386.1	AfcCfaGfuGfaAfAfUfcAfaAfgAfaGfaAfL96	A-108387.1	uUfcUfuCfuUfuGfaauUfcAfcUfgGfusUfsu
AD-53097.1	A-108538.1	GfuUfgGfgCfcUfAfGfaGfaAfgAfuAfuAfL96	A-108539.1	uAfuAfuCfuUfcUfcuaGfgCfcCfaAfcsCfsa
AD-52966.1	A-108326.1	CfuCfcAfgAfgCfcAfaAfaUfcAfaGfaUfL96	A-108327.1	aUfcUfuGfaUfuUfuggCfuCfuGfgAfgsAfsu

AD-53145.1	A-108664.1	GfgCfaAfaUfuUfAfAfaAfgGfcAfaUfaAfl96	A-108665.1	uUfaUfuGfcCfuUfuuaAfaUfuUfgCfcsUfsc
AD-53113.1	A-108606.1	UfaCfuUfgGfgAfUfCfaCfaAfaGfcAfaAfl96	A-108607.1	uUfuGfcUfuUfgUfgauCfcCfaAfgUfasGfsa
AD-52993.1	A-108382.1	GfaUfcAfgUfcUfUfUfuUfaUfgAfuCfuAfl96	A-108383.1	uAfgAfuCfaUfaAfaaaGfaCfuGfaUfcsAfsa
AD-53031.1	A-108426.1	GfaAfaGfcCfuCfCfUfaGfaAfgAfaAfaAfl96	A-108427.1	uUfuUfuCfuUfcUfaggAfgGfcUfuUfcsAfsa
AD-53017.1	A-108484.1	AfgUfcAfaAfuAfAfAfaGfaAfaUfaGfaAfl96	A-108485.1	uUfcUfaUfuUfcUfuuuAfuUfuGfaCfusAfsu
AD-53143.1	A-108632.1	AfuAfcUfcUfaUfAfAfaAfuCfaAfcCfaAfl96	A-108633.1	uUfgGfuUfgAfuUfuuaUfaGfaGfuAfusAfsa
AD-53149.1	A-108650.1	GfaAfcUfgAfgGfcAfaAfuUfuAfaAfaAfl96	A-108651.1	uUfuUfuAfaAfuUfugcCfuCfaGfuUfcsAfsu
AD-53059.1	A-108494.1	AfgAfcCfcAfgCfAfAfcUfcUfcAfaGfuUfl96	A-108495.1	aAfcUfuGfaGfaGfuugCfuGfgGfuCfusGfsa
AD-53006.1	A-108402.1	AfuAfuAfaAfcUfAfCfaAfgUfcAfaAfaAfl96	A-108403.1	uUfuUfuGfaCfuUfguaGfuUfuAfuAfusGfsu
AD-53025.1	A-108424.1	UfgAfaAfgCfcUfCfCfuAfgAfaGfaAfaAfl96	A-108425.1	uUfuUfcUfuCfuAfggaGfgCfuUfuCfasAfsa
AD-53085.1	A-108534.1	GfgGfaGfaAfcUfAfCfaAfaUfaUfgGfuUfl96	A-108535.1	aAfcCfaUfaUfuUfguaGfuUfcUfcCfcsAfsa
AD-52984.1	A-108332.1	AfgAfuUfuGfcUfAfUfgUfuAfgAfcGfaUfl96	A-108333.1	aUfcGfuCfuAfaCfaaGfcAfaAfuCfusUfsg
AD-53023.1	A-108486.1	GfaAfcCfcAfcAfgAfaAfuUfuCfuCfuAfl96	A-108487.1	uAfgAfgAfaAfuUfucuGfuGfgGfuUfcsUfsu
AD-53014.1	A-108436.1	AfcUfuCfaAfcAfAfAfaAfgUfgAfaAfuAfl96	A-108437.1	uAfuUfuCfaCfuUfuuuGfuUfgAfaGfusAfsa
AD-53060.1	A-108510.1	AfgUfcCfaUfgGfAfCfaUfuAfaUfuCfaAfl96	A-108511.1	uUfgAfaUfuAfaUfgucCfaUfgGfaCfusAfsa
AD-53110.1	A-108652.1	AfaCfuGfaGfgCfAfAfaUfuUfaAfaAfgAfl96	A-108653.1	uCfuUfuUfaAfaUfuugCfcUfcAfgUfusCfsa
AD-52980.1	A-108362.1	GfgGfcCfaAfaUfUfAfaUfgAfcAfuAfuUfl96	A-108363.1	aAfuAfuGfuCfaUfuuaUfuUfgGfcCfcsUfsu
AD-53109.1	A-108636.1	AfuCfcAfuCfcAfAfCfaGfaUfuCfaGfaAfl96	A-108637.1	uUfcUfgAfaUfcUfguuGfgAfuGfgAfusCfsa
AD-53141.1	A-108600.1	AfaGfaUfuUfgGfUfGfuUfuUfcUfaCfuUfl96	A-108601.1	aAfgUfaGfaAfaAfcacCfaAfaUfcUfusUfsg
AD-53126.1	A-108626.1	GfuCfuCfaAfaAfUfGfgAfaGfgUfuAfuAfl96	A-108627.1	uAfuAfaCfcUfuCfcauUfuUfgAfgAfcUfsu

AD-53116.1	A-108654.1	AfcUfgAfgGfcAfAfAfUfuAfaAfaGfgAfL96	A-108655.1	uCfcUfuUfuAfaAfuuuGfcCfuCfaGfusUfsc
AD-52997.1	A-108352.1	GfgGfaCfaUfgGfUfCfuUfaAfaGfaCfuUfL96	A-108353.1	aAfgUfcUfuUfaAfgacCfaUfgUfcCfcsAfsa
AD-53120.1	A-108624.1	AfuGfgUfaAfaUfAfUfaAfcAfaAfcCfaAfL96	A-108625.1	uUfgGfuUfuGfuUfaaaUfuUfaCfcAfusUfsu
AD-53070.1	A-108576.1	GfgGfaAfaUfcAfCfGfaAfaCfcAfaCfuAfL96	A-108577.1	uAfgUfuGfgUfuUfcguGfaUfuUfcCfcsAfsa
AD-53028.1	A-108472.1	CfcAfaCfaGfcAfUfAfgUfcAfaAfuAfaAfL96	A-108473.1	uUfuAfuUfuGfaCfuauGfcUfgUfuGfgsUfsu
AD-53146.1	A-108602.1	UfuUfuCfuAfcUfUfGfgGfaUfcAfcAfaAfL96	A-108603.1	uUfuGfuGfaUfcCfaaGfuAfgAfaAfasCfsa
AD-52982.1	A-108394.1	AfgAfaCfuAfcAfUfAfUfaAfaAfcUfaCfaAfL96	A-108395.1	uUfgUfaGfuUfuAfuauGfuAfgUfuCfusUfsc
AD-53111.1	A-108668.1	AfgAfgUfaUfgUfGfUfaAfaAfaUfcUfgUfL96	A-108669.1	aCfaGfaUfuUfuUfacaCfaUfaCfuCfusGfsu
AD-53045.1	A-108462.1	AfaAfaCfaAfgAfUfAfaUfaGfcAfuCfaAfL96	A-108463.1	uUfgAfuGfcUfaUfuauCfuUfgUfuUfusUfsc
AD-53123.1	A-108672.1	AfgUfaUfgUfgUfAfAfaAfaUfcUfgUfaAfL96	A-108673.1	uUfaCfaGfaUfuUfuuaCfaCfaUfaCfusCfsu
AD-53018.1	A-108406.1	AfgUfcAfaAfaAfUfGfaAfgAfgGfuAfaAfL96	A-108407.1	uUfuAfcCfuCfuUfcuUfuUfuGfaCfusUfsg
AD-52956.1	A-108354.1	GfgAfcAfuGfgUfCfUfuAfaAfgAfcUfuUfL96	A-108355.1	aAfaGfuCfuUfuAfagaCfcAfuGfuCfcsCfsa
AD-53134.1	A-108660.1	GfaGfgCfaAfaUfUfUfaAfaAfgGfcAfaUfL96	A-108661.1	aUfuGfcCfuUfuUfaaaUfuUfgCfcUfcsAfsu
AD-52968.1	A-108358.1	GfuCfuUfaAfaGfAfCfuUfuGfuCfcAfuAfL96	A-108359.1	uAfuGfgAfcAfaAfgucUfuUfaAfgAfcsCfsa
AD-53122.1	A-108656.1	CfuGfaGfgCfaAfAfUfuUfaAfaAfgGfcAfL96	A-108657.1	uGfcCfuUfuUfaAfauuUfgCfcUfcAfgsUfsu
AD-53100.1	A-108586.1	GfcAfaUfcCfcGfGfAfaAfaCfaAfaGfaUfL96	A-108587.1	aUfcUfuUfgUfuUfuccGfgGfaUfuGfcsAfsu
AD-53128.1	A-108658.1	UfgAfgGfcAfaAfUfUfuAfaAfaGfgCfaAfL96	A-108659.1	uUfgCfcUfuUfuAfaauUfuGfcCfuCfasGfsu
AD-53043.1	A-108430.1	UfcUfaCfuUfcAfAfcAfaAfaAfaGfuGfaAfL96	A-108431.1	uUfcAfcUfuUfuUfguuGfaAfgUfaGfasAfsu
AD-53135.1	A-108676.1	UfaUfgUfgUfaAfAfAfaUfcUfgUfaAfuAfL96	A-108677.1	uAfuUfaCfaGfaUfuuuUfaCfaCfaUfasCfsu
AD-53094.1	A-108584.1	AfaUfgCfaAfuCfCfCfGfgAfaAfcAfaAfL96	A-108585.1	uUfuGfuUfuUfcCfgggAfuUfgCfaUfusGfsg

AD-53019.1	A-108422.1	CfuUfgAfaAfgCfCfUfcCfuAfgAfaGfaAfl96	A-108423.1	uUfcUfuCfuAfgGfaggCfuUfuCfaAfgsUfsu
AD-53129.1	A-108674.1	GfuAfuGfuGfuAfaAfaAfuCfuGfuAfaUfl96	A-108675.1	aUfuAfcAfgAfuUfuuuAfcAfcAfuAfcUfsc
AD-53150.1	A-108666.1	CfaGfaGfuAfuGfUfGfuAfaAfaAfuCfuUfl96	A-108667.1	aAfgAfuUfuUfuAfcacAfuAfcUfcUfsgUfsg
AD-53117.1	A-108670.1	GfaGfuAfuGfuGfUfAfaAfaAfuCfuGfuAfl96	A-108671.1	uAfcAfgAfuUfuUfuacAfcAfuAfcUfcsUfsg
AD-52985.1	A-108348.1	UfcAfgUfuGfgGfAfCfaUfgGfuCfuUfaAfl96	A-108349.1	uUfaAfgAfcCfaUfgucCfcAfaCfuGfasAfsu
AD-52962.1	A-108356.1	GfgUfcUfuAfaAfgAfcUfuUfgUfcCfaUfl96	A-108357.1	aUfgGfaCfaAfaGfucuUfuAfaGfaCfcsAfsu
AD-52974.1	A-108360.1	UfcUfuAfaAfgAfcUfuUfgUfcCfaUfaAfl96	A-108361.1	uUfaUfgGfaCfaAfguAfuUfuAfaGfasCfsc
AD-52979.1	A-108346.1	UfuCfaGfuUfgGfGfAfcAfuGfgUfcUfuAfl96	A-108347.1	uAfaGfaCfcAfuGfuuccCfaAfcUfgAfasGfsg

Lowercase nucleotides (a, u, g, c) are 2'-O-methyl nucleotides; Nf (e.g., Af) is a 2'-fluoro nucleotide; s is a phosphothiorate linkage; L96 indicates a GalNAc ligand.

Table 9. Unmodified Sense and antisense strand sequences of ANGPTL3 dsRNAs without GalNal conjugation

These sequences are the same as the sequences listed in Table 7 except that they do not contain GalNal conjugation.

Duplex Name	Sense OligoName	Sense Sequence (SEQ ID NOS 1004-1184, respectively, in order of appearance)	Antisense OligoName	Antisense Sequence (SEQ ID NOS 1185-1365, respectively, in order of appearance)	Position in NM_014495.2
AD-52637.1	A-108817.1	UCACAAUUAAGCUCCUUCUUU	A-108307.2	AAAGAAGGAGCUUAAUUGUGAAC	54-76
AD-52638.1	A-108825.1	UUAUUGUUCUCUAGUUAUUU	A-108323.2	AAAUAACUAGAGGAACAAUAAAA	75-97
AD-52639.1	A-108833.1	GCUAUGUUAGACGAUGUAAAA	A-108339.2	UUUUACAUCGUCUACAUAGCAA	161-183
AD-52640.1	A-108841.1	GGACAUGGUCUUAAGACUUU	A-108355.2	AAAGUCUUUAAGACCAUGUCCCA	209-231
AD-52641.1	A-108849.1	CAAAAACUCAACAUUUUGAU	A-108371.2	AUCAAAUUAUGUUGAGUUUUUGAA	266-288
AD-52642.1	A-108857.1	ACCAGUGAAAUCAAGAAGAA	A-108387.2	UUCUUCUUUGAUUUCACUGGUUU	314-336
AD-52643.1	A-108818.1	CACAAUUAAGCUCCUUCUUUU	A-108309.2	AAAAGAAGGAGCUUAAUUGUGAA	55-77
AD-52645.1	A-108834.1	CUAUGUUAGACGAUGUAAAAA	A-108341.2	UUUUUACAUCGUCUACAUAGCA	162-184
AD-52647.1	A-108850.1	UCAACAUUUUGAUCAGUCUU	A-108373.2	AAGACUGAUCAAAUAUGUUGAGU	273-295
AD-52648.1	A-108858.1	AACUGAGAAGAACUACAUUA	A-108389.2	UAUAUGUAGUUCUUCUCAGUCC	342-364
AD-52649.1	A-108819.1	ACAAUUAAGCUCCUUCUUUUU	A-108311.2	AAAAAGAAGGAGCUUAAUUGUGA	56-78
AD-52650.1	A-108827.1	CUCCAGAGCCAAAUCAAGAU	A-108327.2	AUCUUGAUUUUGGCUCUGGAGAU	138-160
AD-52651.1	A-108835.1	CGAUGUAAAAUUUUAGCCAA	A-108343.2	UUGGCUAAAAUUUUACAUCGUC	172-194
AD-52652.1	A-108843.1	GUCUUAAGACUUUGUCCAUA	A-108359.2	UAUGGACAAAGUCUUUAAGACCA	216-238
AD-52653.1	A-108851.1	CAACAUUUUGAUCAGUCUUU	A-108375.2	AAAGACUGAUCAAAUAUGUUGAG	274-296

AD-52654.1	A-108859.1	ACUGAGAAGAACUACAUUAAA	A-108391.2	UUUAUAGUAGUUCUUCUCAGUUC	343-365
AD-52656.1	A-108828.1	CCAGAGCCAAAAUCAAGAUUU	A-108329.2	AAAUCUUGAUUUUUGGCUCUGGAG	140-162
AD-52657.1	A-108836.1	GAUGUAAAAAUUUUAGCCAAU	A-108345.2	AUUGGCUAAAAUUUUUACAUCGU	173-195
AD-52658.1	A-108844.1	UCUUAAGACUUUGUCCAUAA	A-108361.2	UUUUGGACAAAGUCUUUAAGACC	217-239
AD-52659.1	A-108852.1	AACAUUUUGAUCAGUCUUUU	A-108377.2	AAAAGACUGAUCAAAUAUGUUGA	275-297
AD-52660.1	A-108860.1	CUGAGAAGAACUACAUUAAA	A-108393.2	UUUAUAGUAGUUCUUCUCAGUU	344-366
AD-52661.1	A-108821.1	AAUUAAGCUCCUUCUUUUUAU	A-108315.2	AUAAAAAGAAGGAGCUAAUUGU	58-80
AD-52662.1	A-108829.1	AAAUCAAGAUUUGCUAUGUUA	A-108331.2	UAACAUAGCAAAUCUUGAUUUUG	149-171
AD-52663.1	A-108837.1	UUCAGUUGGGACAUGGUCUUA	A-108347.2	UAGACCAUGUCCCAACUGAAGG	201-223
AD-52664.1	A-108845.1	GGGCCAAAUUAAUGACAUUUU	A-108363.2	AAUAUGUCAUUAUUUUGGCCCUU	244-266
AD-52665.1	A-108853.1	ACAUUUUGAUCAGUCUUUUU	A-108379.2	AAAAAGACUGAUCAAAUAUGUUG	276-298
AD-52666.1	A-108861.1	AGAACUACAUUAAACUACAA	A-108395.2	UUGUAGUUUAUAGUAGUUCUUC	350-372
AD-52667.1	A-108822.1	AUUUAGCUCCUUCUUUUUAUU	A-108317.2	AAUAAAAAGAAGGAGCUAAUUG	59-81
AD-52668.1	A-108830.1	AGAUUUGCUAUGUUAGACGAU	A-108333.2	AUCGUCUACAUAGCAAAUCUUG	155-177
AD-52669.1	A-108838.1	UCAGUUGGGACAUGGUCUUA	A-108349.2	UUAAGACCAUGUCCCAACUGAAG	202-224
AD-52670.1	A-108846.1	GGCCAAAUUAAUGACAUUUU	A-108365.2	AAUAUGUCAUUAUUUUGGCCCU	245-267
AD-52671.1	A-108854.1	CAUAUUUGAUCAGUCUUUUUA	A-108381.2	UAAAAAGACUGAUCAAAUAUGUU	277-299
AD-52672.1	A-108862.1	UACAUUAAACUACAAGUCAA	A-108397.2	UUGACUUGUAGUUUAUAGUAGU	355-377
AD-52673.1	A-108823.1	UUUUUUGUUCUUCUAGUUUU	A-108319.2	AUAACUAGAGGAACAAUAAAAAG	73-95
AD-52674.1	A-108831.1	UUGCUAUGUUAGACGAUGUAA	A-108335.2	UUACAUCGUCUACAUAGCAAAU	159-181

AD-52675.1	A-108839.1	CAGUUGGGACAUGGUCUAAAA	A-108351.2	UUUAAGACCAUGUCCCAACUGAA	203-225
AD-52676.1	A-108847.1	AAAUUAAUGACAUUUUUCAAA	A-108367.2	UUUGAAAUAUGUCAUUAUUUUGG	249-271
AD-52677.1	A-108855.1	GAUCAGUCUUUUUAUGAUCUA	A-108383.2	UAGAUCAUAAAAAGACUGAUCAA	284-306
AD-52678.1	A-108863.1	ACAUUAAAACUACAAGUCAAA	A-108399.2	UUUGACUUGUAGUUUAUAUGUAG	356-378
AD-52679.1	A-108824.1	UUUAUUGUUCUCUAGUUAUU	A-108321.2	AAUAACUAGAGGAACAAUAAAAA	74-96
AD-52680.1	A-108832.1	UGCUAUGUUAGACGAUGUAAA	A-108337.2	UUUACAUCGUCUAACAUAGCAAA	160-182
AD-52681.1	A-108840.1	GGGACAUGGUCUUAAGACUU	A-108353.2	AAGUCUUUAAGACCAUGUCCCAA	208-230
AD-52682.1	A-108848.1	UGACAUUUUCAAACUCAA	A-108369.2	UUGAGUUUUUGAAAUAUGUCAUU	256-278
AD-52683.1	A-108856.1	AUCAGUCUUUUUAUGAUCUUAU	A-108385.2	AUAGAUCAUAAAAAGACUGAUCA	285-307
AD-52684.1	A-108864.1	CAUAUAAACUACAAGUCAAAA	A-108401.2	UUUUGACUUGUAGUUUAUAUGUA	357-379
AD-52685.1	A-108872.1	CUUGAACUCAACUCAAACUU	A-108417.2	AAGUUUUUGAGUUGAGUUAAGUG	401-423
AD-52686.1	A-108880.1	CUACUUAACAAAAAGUGAAA	A-108433.2	UUUCACUUUUUGUUGAAGUAGAA	446-468
AD-52687.1	A-108888.1	AAGAGCAACUAACUAACUUA	A-108449.2	UUAAGUUAGUUAGUUGCUCUUCU	474-496
AD-52688.1	A-108896.1	AAACAAGAUAAUAGCAUCAA	A-108465.2	UUUGAUGCUAUUAUCUUGUUUUU	557-579
AD-52689.1	A-108904.1	GCAUAGUCAAAUAAAAGAAU	A-108481.2	AUUUCUUUUUUUGACUAUGCUG	625-647
AD-52690.1	A-108865.1	AUAUAAACUACAAGUCAAAAA	A-108403.2	UUUUUGACUUGUAGUUUAUAUGU	358-380
AD-52691.1	A-108873.1	GAACUCAACUAAAACUUGAA	A-108419.2	UUCAAGUUUUUGAGUUGAGUUCAA	404-426
AD-52692.1	A-108881.1	UACUUAACAAAAAGUGAAAU	A-108435.2	AUUUCACUUUUUGUUGAAGUAGA	447-469
AD-52693.1	A-108889.1	AGAGCAACUAACUAACUUAU	A-108451.2	AUUAAAGUUAGUUAGUUGCUCUUC	475-497
AD-52694.1	A-108897.1	GAUAAUAGCAUCAAGACCUU	A-108467.2	AAGGUCUUUGAUGCUAUUAUCUU	563-585

AD-52695.1	A-108905.1	CAUAGUCAAAUAAAAGAAAUA	A-108483.2	UAUUUCUUUUUUUUUGACUAUGCU	626-648
AD-52696.1	A-108866.1	UAUAAACUACAAGUCAAAAAU	A-108405.2	AUUUUUGACUUGUAGUUUAUAUG	359-381
AD-52697.1	A-108874.1	AACUCAACUCAAACUUGAAA	A-108421.2	UUUCAAGUUUUUGAGUUGAGUUA	405-427
AD-52698.1	A-108882.1	ACUUCAACAAAAAGUGAAAUA	A-108437.2	UAUUUCACUUUUUGUUGAAGUAG	448-470
AD-52699.1	A-108890.1	GAGCAACUAACUAACUUAUUU	A-108453.2	AAUUAAGUUAGUUAGUUGCUCUU	476-498
AD-52700.1	A-108898.1	AACCAACAGCAUAGUCAAAUA	A-108469.2	UAUUUGACUAUGCUGUUGGUUUA	617-639
AD-52701.1	A-108906.1	AGUCAAAUAAAAGAAUAGAA	A-108485.2	UUCUAUUUCUUUUUUUUGACUAU	629-651
AD-52702.1	A-108867.1	AGUCAAAAAUGAAGAGGUAAA	A-108407.2	UUUACCUCUUAUUUUUGACUUG	370-392
AD-52703.1	A-108875.1	CUUGAAAGCCUCCUAGAAGAA	A-108423.2	UUCUUCUAGGAGGCUUUAAGUU	419-441
AD-52704.1	A-108883.1	CUUCAACAAAAAGUGAAUAU	A-108439.2	AUAUUUCACUUUUUGUUGAAGUA	449-471
AD-52705.1	A-108891.1	CAACUAACUAACUUAUUUCAA	A-108455.2	UUGAAUUAAGUUAGUUAGUUGCU	479-501
AD-52706.1	A-108899.1	ACCAACAGCAUAGUCAAUAA	A-108471.2	UUUUUUGACUAUGCUGUUGGUUU	618-640
AD-52707.1	A-108907.1	GAACCCACAGAAAUUUCUCUA	A-108487.2	UAGAGAAAUUUCUGUGGGUUCUU	677-699
AD-52708.1	A-108868.1	GAAUAUGUCACUUGAACUCAA	A-108409.2	UUGAGUUAAGUGACAUUUUCUU	391-413
AD-52709.1	A-108876.1	UGAAAGCCUCCUAGAAGAAAA	A-108425.2	UUUUCUUCUAGGAGGCUUUAAG	421-443
AD-52710.1	A-108884.1	UUCAACAAAAAGUGAAUAUU	A-108441.2	AAUAUUUCACUUUUUGUUGAAGU	450-472
AD-52711.1	A-108892.1	AACUAACUAACUUAUUUCAA	A-108457.2	UUUGAAUUAAGUUAGUUAGUUGC	480-502
AD-52712.1	A-108900.1	CCAACAGCAUAGUCAAAUAAA	A-108473.2	UUUAUUUGACUAUGCUGUUGGUU	619-641
AD-52713.1	A-108908.1	AACCCACAGAAAUUUCUCUAU	A-108489.2	AUAGAGAAAUUUCUGUGGGUUCU	678-700
AD-52714.1	A-108869.1	UGUCACUUGAACUCAACUCAA	A-108411.2	UUGAGUUGAGUUAAGUGACUAU	396-418

AD-52715.1	A-108877.1	GAAAGCCUCCUAGAAGAAAAA	A-108427.2	UUUUUCUUCUAGGAGGCUUCAA	422-444
AD-52716.1	A-108885.1	AAUAUUUAGAAGAGCAACUAA	A-108443.2	UUAGUUGCUCUUCUAAAUAUUUC	465-487
AD-52717.1	A-108893.1	ACUAACUAACUUAUUCAAAA	A-108459.2	UUUUGAAUUAAGUUAGUUAGUUG	481-503
AD-52718.1	A-108901.1	CAACAGCAUAGUCAAAUAAAA	A-108475.2	UUUUUAUUUGACUAUGCUGUUGGU	620-642
AD-52719.1	A-108909.1	CCACAGAAAUUUCUCUAUCUU	A-108491.2	AAGAUAGAGAAAUUUCUGUGGGU	681-703
AD-52720.1	A-108870.1	GUCACUUGAACUCAACUCAA	A-108413.2	UUUGAGUUGAGUUCAAGUGACAU	397-419
AD-52721.1	A-108878.1	CUCCUAGAAGAAAAAUUCUA	A-108429.2	UAGAAUUUUUUCUUCUAGGAGGC	428-450
AD-52722.1	A-108886.1	AUUUAGAAGAGCAACUAACUA	A-108445.2	UAGUUAGUUGCUCUUCUAAAUAU	468-490
AD-52723.1	A-108894.1	CUAACUAACUUAUUCAAAAU	A-108461.2	AUUUUGAAUUAAGUUAGUUAGUU	482-504
AD-52724.1	A-108902.1	CAGCAUAGUCAAAUAAAAGAA	A-108477.2	UUCUUUUUAUUUGACUAUGCUGUU	623-645
AD-52725.1	A-108910.1	GAAUAAGAAAUUGUAAAACAU	A-108493.2	AUGUUUUACAUUUCUUAUUUCAU	746-768
AD-52726.1	A-108871.1	UCACUUGAACUCAACUAAAA	A-108415.2	UUUUGAGUUGAGUUCAAGUGACA	398-420
AD-52727.1	A-108879.1	UCUACUUCACAAAAAGUGAA	A-108431.2	UUCACUUUUUGUUGAAGUAGAAU	445-467
AD-52728.1	A-108887.1	UUUAGAAGAGCAACUAACUAA	A-108447.2	UUAGUUAGUUGCUCUUCUAAAUA	469-491
AD-52729.1	A-108895.1	AAAACAAGAUAAUAGCAUCAA	A-108463.2	UUGAUGCUAUUAUCUUGUUUUUC	556-578
AD-52730.1	A-108903.1	AGCAUAGUCAAAUAAAAGAAA	A-108479.2	UUUCUUUUUAUUUGACUAUGCUGU	624-646
AD-52731.1	A-108958.1	AGACCCAGCAACUCUCAAGUU	A-108495.2	AACUUGAGAGUUGCUGGGUCUGA	836-858
AD-52732.1	A-108966.1	AGUCCAUGGACAUUAAUUCAA	A-108511.2	UUGAAUUAUGUCCAUGGACUAC	887-909
AD-52733.1	A-108974.1	GAUGGAUCACAAAACUUCAAU	A-108527.2	AUUGAAGUUUUGUGAUCCAUCUA	917-939
AD-52734.1	A-108982.1	CUAGAGAAGAUAUACUCCAUA	A-108543.2	UAUGGAGUAUAUCUUCUCUAGGC	998-1020

AD-52735.1	A-108990.1	AAAGACAACAAACAUUAUAUU	A-108559.2	AAUAUAAUGUUUGUUGUCUUUCC	1064-1086
AD-52736.1	A-108998.1	CAUUAUAUUGAAUAUUCUUUU	A-108575.2	AAAAGAAUAUUCAAUAUAUGUU	1076-1098
AD-52737.1	A-108959.1	GACCCAGCAACUCUCAAGUUU	A-108497.2	AAACUUGAGAGUUGCUGGGUCUG	837-859
AD-52739.1	A-108975.1	GGAUCACAAAACUUCAAUGAA	A-108529.2	UUCAUUGAAGUUUUGUGAUCCA	920-942
AD-52740.1	A-108983.1	GAAGAUUAUCUCCAUGUGAA	A-108545.2	UUCACUUGGAGUAUAUCUUCUC	1003-1025
AD-52741.1	A-108991.1	GACAACAAACAUUAUAUUGAA	A-108561.2	UUCAAUAUAUGUUUGUUGUCUU	1067-1089
AD-52742.1	A-108999.1	GGGAAAUACGAAACCAACUA	A-108577.2	UAGUUGGUUUCGUGAUUUCCAA	1102-1124
AD-52743.1	A-108960.1	ACCCAGCAACUCUCAAGUUUU	A-108499.2	AAAACUUGAGAGUUGCUGGGUCU	838-860
AD-52744.1	A-108968.1	GGACAUUAAUUAACAUCGAA	A-108515.2	UUCGAUGUUGAAUUAUGUCCA	894-916
AD-52745.1	A-108976.1	GAUCACAAAACUCCAUGAAA	A-108531.2	UUUCAUUGAAGUUUUGUGAUCCA	921-943
AD-52746.1	A-108984.1	ACUCCAUGUGAAGCAAUCUA	A-108547.2	UAGAUUGCUUCACUAUGGAGUAU	1011-1033
AD-52747.1	A-108992.1	ACAACAAACAUUAUAUUGAAU	A-108563.2	AUUCAAUAUAUGUUUGUUGUCU	1068-1090
AD-52748.1	A-109000.1	GGAAAUACGAAACCAACUAU	A-108579.2	AUAGUUGGUUUCGUGAUUUCCCA	1103-1125
AD-52749.1	A-108961.1	CCCAGCAACUCUCAAGUUUUU	A-108501.2	AAAAACUUGAGAGUUGCUGGGUC	839-861
AD-52750.1	A-108969.1	GACAUUAAUUAACAUCGAU	A-108517.2	AUUCGAUGUUGAAUUAUGUCCA	895-917
AD-52751.1	A-108977.1	AACGUGGGAGAACUACAAUA	A-108533.2	UAUUUGUAGUUCUCCACGUUUC	940-962
AD-52752.1	A-108985.1	CUCCAUGUGAAGCAAUCUAA	A-108549.2	UUAGAUUGCUUCACUAUGGAGUA	1012-1034
AD-52753.1	A-108993.1	CAACAAACAUUAUAUUGAAUA	A-108565.2	UAUUCAAUAUAUGUUUGUUGUC	1069-1091
AD-52754.1	A-109001.1	GAAAUACGAAACCAACUAUA	A-108581.2	UAUAGUUGGUUUCGUGAUUUCCC	1104-1126
AD-52755.1	A-108962.1	CUCUCAAGUUUUUCAUGUCUA	A-108503.2	UAGACAUGAAAAACUUGAGAGUU	847-869

AD-52756.1	A-108970.1	ACAUUAAUUCAACAUCGAAUA	A-108519.2	UAUUCGAUGUUGAAUUA AUGUCC	896-918
AD-52757.1	A-108978.1	GGGAGAACUACAAUAUGGUU	A-108535.2	AACCAUAUUUGUAGUUCUCCAC	945-967
AD-52758.1	A-108986.1	UCCAUAGUGAAGCAAUCUAAU	A-108551.2	AUUAGAUUGCUUCACUAUGGAGU	1013-1035
AD-52759.1	A-108994.1	AACAAACAUUAUAUUGAAUAU	A-108567.2	AUAUUCAAUAUAAUGUUUGUUGU	1070-1092
AD-52760.1	A-109002.1	UGGCAAUGUCCCCAUGCAAU	A-108583.2	AUUGCAUUGGGGACAUUGCCAGU	1147-1169
AD-52761.1	A-108963.1	UCAGGUAGUCCAUGGACAUUA	A-108505.2	UAAUGUCCAUGGACUACCUGAUA	881-903
AD-52762.1	A-108971.1	UUAAUUCAACAUCGAAUAGAU	A-108521.2	AUCUAUUCGAUGUUGAAUUA AUG	899-921
AD-52763.1	A-108979.1	GGAGAACUACAAUAUGGUUU	A-108537.2	AAACCAUAUUUGUAGUUCUCCCA	946-968
AD-52764.1	A-108987.1	CCAUAGUGAAGCAAUCUAAUU	A-108553.2	AAUUAGAUUGCUUCACUAUGGAG	1014-1036
AD-52765.1	A-108995.1	ACAAACAUUAUAUUGAAUAUU	A-108569.2	AAUAUUCAAUAUAAUGUUUGUUG	1071-1093
AD-52766.1	A-109003.1	AAUGCAAUCCCGGAAAACAAA	A-108585.2	UUUGUUUUCCGGGAUUGCAUUGG	1160-1182
AD-52767.1	A-108964.1	CAGGUAGUCCAUGGACAUUAA	A-108507.2	UUAAUGUCCAUGGACUACCUGAU	882-904
AD-52768.1	A-108972.1	UUCAACAUCGAAUAGAUGGAU	A-108523.2	AUCCAUCUAUUCGAUGUUGAAUU	903-925
AD-52769.1	A-108980.1	GUUGGGCCUAGAGAAGAUUAUA	A-108539.2	UAUAUCUUCUCUAGGCCCAACCA	991-1013
AD-52770.1	A-108988.1	CAUAGUGAAGCAAUCUAAUUA	A-108555.2	UAAUUAGAUUGCUUCACUAUGGA	1015-1037
AD-52771.1	A-108996.1	AACAUAUAUUGAAUAUUCUU	A-108571.2	AAGAAUAUUCAAUAUAAUGUUUG	1074-1096
AD-52772.1	A-109004.1	GCAAUCCCGGAAAACAAAGAU	A-108587.2	AUCUUUGUUUUCCGGGAUUGCAU	1163-1185
AD-52773.1	A-108965.1	GGUAGUCCAUGGACAUUAAUU	A-108509.2	AAUUA AUGUCCAUGGACUACCUG	884-906
AD-52774.1	A-108973.1	AUCGAAUAGAUGGAUCACAAA	A-108525.2	UUUGUGAUCCAUCUAUUCGAUGU	909-931
AD-52775.1	A-108981.1	CCUAGAGAAGAUAUACUCCAU	A-108541.2	AUGGAGUAUAUCUUCUCUAGGCC	997-1019

AD-52776.1	A-108989.1	GUUGGAAGACUGGAAAGACAA	A-108557.2	UUGUCUUUCCAGUCUCCAACUC	1051-1073
AD-52777.1	A-108997.1	ACAUUAUAUUGAAUAUUCUUU	A-108573.2	AAAGAAUAUCAAUAUAAUGUUU	1075-1097
AD-52778.1	A-109005.1	CAAUCCCGGAAAACAAAGAUU	A-108589.2	AAUCUUUGUUUUCCGGGAUUGCA	1164-1186
AD-52779.1	A-109013.1	CUACUUGGGAUCACAAAGCAA	A-108605.2	UUGCUUUGUGAUCCCAAGUAGAA	1194-1216
AD-52780.1	A-109021.1	ACAACCUAAAUGGUAAAAUAUA	A-108621.2	UAUAUUUACCAUUUAGGUUGUUU	1281-1303
AD-52781.1	A-109029.1	AUCCAUCCAACAGAUUCAGAA	A-108637.2	UUCUGAAUCUGUUGGAUGGAUCA	1400-1422
AD-52782.1	A-109037.1	AACUGAGGCAAAUUUAAAAGA	A-108653.2	UCUUUUAAAAUUUGCCUCAGUUCA	1432-1454_G21A
AD-52783.1	A-109045.1	AGAGUAUGUGUAAAAUCUGU	A-108669.2	ACAGAUUUUUACACAUACUCUGU	1913-1935
AD-52784.1	A-109006.1	AAUCCCGGAAAACAAAGAUUU	A-108591.2	AAAUCUUUGUUUUCCGGGAUUGC	1165-1187
AD-52785.1	A-109014.1	UACUUGGGAUCACAAAGCAAA	A-108607.2	UUUGCUUUGUGAUCCCAAGUAGA	1195-1217
AD-52786.1	A-109022.1	CAACCUAAAUGGUAAAUAUAA	A-108623.2	UUUAUUUUACCAUUUAGGUUGUU	1282-1304
AD-52787.1	A-109030.1	UUGAAUGAACUGAGGCAAAUU	A-108639.2	AAUUUGCCUCAGUUCAUCAAAG	1425-1447
AD-52788.1	A-109038.1	ACUGAGGCAAAUUUAAAAGGA	A-108655.2	UCCUUUUAAAAUUUGCCUCAGUUC	1433-1455_C21A
AD-52789.1	A-109046.1	GAGUAUGUGUAAAAUCUGUA	A-108671.2	UACAGAUUUUUACACAUACUCUG	1914-1936
AD-52791.1	A-109015.1	ACUUGGGAUCACAAAGCAAAA	A-108609.2	UUUUGCUUUGUGAUCCCAAGUAG	1196-1218
AD-52792.1	A-109023.1	AUGGUAAAUAUAACAAACCAA	A-108625.2	UUGGUUUUGUUUAUUUUACCAUUU	1290-1312
AD-52793.1	A-109031.1	UGAAUGAACUGAGGCAAAUUU	A-108641.2	AAAUUUGCCUCAGUUCAUUCAAA	1426-1448
AD-52794.1	A-109039.1	CUGAGGCAAAUUUAAAAGGCA	A-108657.2	UGCCUUUUAAAAUUUGCCUCAGUU	1434-1456
AD-52795.1	A-109047.1	AGUAUGUGUAAAAUCUGUAA	A-108673.2	UUACAGAUUUUUACACAUACUCU	1915-1937
AD-52796.1	A-109008.1	GAAAACAAAGAUUUGGUGUUU	A-108595.2	AAACACCAAAUCUUUGUUUUCCG	1172-1194

AD-52797.1	A-109016.1	AGUGUGGAGAAAAACAACCUAA	A-108611.2	UUAGGUUGUUUUCUCCACACUCA	1269-1291
AD-52798.1	A-109024.1	GUCUCAAAAUGGAAGGUUAUA	A-108627.2	UAUAACCUUCCAUUUUGAGACUU	1354-1376
AD-52799.1	A-109032.1	GAAUGAACUGAGGCAAAUUUA	A-108643.2	UAAAUUUGCCUCAGUUCAUUCAA	1427-1449
AD-52800.1	A-109040.1	UGAGGCAAAUUUAAAAGGCAA	A-108659.2	UUGCCUUUUAAAUUUGCCUCAGU	1435-1457
AD-52801.1	A-109048.1	GUAUGUGUAAAAAUCUGUAAU	A-108675.2	AUUACAGAUUUUUACACAUACUC	1916-1938
AD-52802.1	A-109009.1	AAAACAAAGAUUUGGUGUUUU	A-108597.2	AAAACACCAAAUCUUUGUUUUCC	1173-1195
AD-52803.1	A-109017.1	GUGUGGAGAAAAACAACCUAAA	A-108613.2	UUUAGGUUGUUUUCUCCACACUC	1270-1292
AD-52804.1	A-109025.1	AUGGAAGGUUAUACUCUAUAA	A-108629.2	UUUAUAGAGUAUAACCUUCCAUUU	1362-1384
AD-52805.1	A-109033.1	AAUGAACUGAGGCAAAUUUAA	A-108645.2	UUAAAAUUUGCCUCAGUUCAUUC	1428-1450
AD-52806.1	A-109041.1	GAGGCAAAUUUAAAAGGCAAU	A-108661.2	AUUGCCUUUUAAAUUUGCCUCAG	1436-1458
AD-52807.1	A-109049.1	UAUGUGUAAAAAUCUGUAAUA	A-108677.2	UAUUACAGAUUUUUACACAUACU	1917-1939
AD-52808.1	A-109010.1	ACAAAGAUUUGGUGUUUUCUA	A-108599.2	UAGAAAACACCAAAUCUUUGUUU	1176-1198
AD-52809.1	A-109018.1	UGUGGAGAAAAACAACCUAAAU	A-108615.2	AUUUAGGUUGUUUUCUCCACACU	1271-1293
AD-52810.1	A-109026.1	UGGAAGGUUAUACUCUAUAAA	A-108631.2	UUUAUAGAGUAUAACCUUCCAUU	1363-1385
AD-52811.1	A-109034.1	AUGAACUGAGGCAAAUUUAAA	A-108647.2	UUUAAAUUUGCCUCAGUUCAUUC	1429-1451
AD-52812.1	A-109042.1	AGGCAAAUUUAAAAGGCAUA	A-108663.2	UAUUGCCUUUUAAAUUUGCCUCA	1437-1459
AD-52813.1	A-109011.1	AAGAUUUGGUGUUUUCUACUU	A-108601.2	AAGUAGAAAACACCAAAUCUUUG	1179-1201
AD-52814.1	A-109019.1	AAACAACCUAAAUGGUAAAUA	A-108617.2	UAUUUACCAUUUAGGUUGUUUUC	1279-1301
AD-52815.1	A-109027.1	AUACUCUAUAAAAUCAACCAA	A-108633.2	UUGGUUGAUUUUAUAGAGUAUAA	1372-1394
AD-52816.1	A-109035.1	UGAACUGAGGCAAAUUUAAAA	A-108649.2	UUUUAAAUUUGCCUCAGUUCAUU	1430-1452

AD-52817.1	A-109043.1	GGCAAAUUUAAAAGGCAAUAA	A-108665.2	UUAUUGCCUUUUAAAUUUGCCUC	1438-1460
AD-52818.1	A-109012.1	UUUUCUACUUGGGAUCACAAA	A-108603.2	UUUGUGAUCCCAAGUAGAAAACA	1190-1212
AD-52819.1	A-109020.1	AACAACCUAAAUGGUAAAUAU	A-108619.2	AUAUUUACCAUUUAGGUUGUUUU	1280-1302
AD-52820.1	A-109028.1	UACUCUAUAAAAUCAACCAAA	A-108635.2	UUUGGUUGAUUUUAUAGAGUAUA	1373-1395
AD-52821.1	A-109036.1	GAACUGAGGCAAAUUUAAAAA	A-108651.2	UUUUUAAAUUUGCCUCAGUUCAU	1431-1453_G21A
AD-52822.1	A-109044.1	CAGAGUAUGUGUAAAAAUCUU	A-108667.2	AAGAUUUUUACACAUACUCUGUG	1912-1934_G21U

Table 10. Modified Sense and antisense strand sequences of ANGPTL3 dsRNAs without GalNal conjugation

These sequences are the same as the sequences listed in Table 8 except that they do not contain GalNal conjugation.

Duplex Name	Sense Oligo Name	Sense Sequence (SEQ ID NOS 1366-1546, respectively, in order of appearance)	Antisense OligoName	Antisense Oligo Sequence (SEQ ID NOS 1547-1727, respectively, in order of appearance)
AD-52637.1	A-108817.1	UfcAfcAfaUfuAfAfGfcUfcCfuUfcUfuUf	A-108307.2	aAfaGfaAfgGfaGfcuuAfaUfuGfuGfasAfsc
AD-52638.1	A-108825.1	UfuAfuUfgUfuCfCfUfcUfaGfuUfaUfuUf	A-108323.2	aAfaUfaAfcUfaGfaggAfaCfaAfuAfafsa
AD-52639.1	A-108833.1	GfcUfaUfgUfuAfGfAfcGfaUfgUfaAfaAf	A-108339.2	uUfuUfaCfaUfcGfucuAfaCfaUfaGfcsAfsa
AD-52640.1	A-108841.1	GfgAfcAfuGfgUfcUfuAfaAfgAfcUfuUf	A-108355.2	aAfaGfuCfuUfuAfagaCfcAfuGfuCfcsCfsa
AD-52641.1	A-108849.1	CfaAfaAfaCfuCfAfAfcAfuAfuUfuGfaUf	A-108371.2	aUfcAfaAfuAfuGfuugAfgUfuUfuUfgsAfsa
AD-52642.1	A-108857.1	AfcCfaGfuGfaAfAfUfcAfaAfgAfaGfaAf	A-108387.2	uUfcUfuCfuUfuGfauuUfcAfcUfgGfusUfsu
AD-52643.1	A-108818.1	CfaCfaAfuUfaAfgGfcUfcUfuCfuUfuUf	A-108309.2	aAfaAfgAfaGfgAfgcuUfaAfuUfgUfgsAfsa
AD-52645.1	A-108834.1	CfuAfuGfuUfaGfAfcGfAfuGfuAfaAfaAf	A-108341.2	uUfuUfuAfcAfuCfugcuUfaAfcAfuAfgsCfsa

AD-52647.1	A-108850.1	UfcAfaCfaUfaUfUfUfgAfuCfaGfuCfuUf	A-108373.2	aAfgAfcUfgAfuCfaaaUfaUfgUfuGfasGfsu
AD-52648.1	A-108858.1	AfaCfuGfaGfaAfGfAfaCfuAfcAfuAfuAf	A-108389.2	uAfuAfuGfuAfgUfucuUfcUfcAfgUfusCfsc
AD-52649.1	A-108819.1	AfcAfaUfuAfaGfCfUfcCfuUfcUfuUfuUf	A-108311.2	aAfaAfaGfaAfgGfagcUfuAfaUfuGfusGfsa
AD-52650.1	A-108827.1	CfuCfcAfgAfgCfCfAfaAfaUfcAfaGfaUf	A-108327.2	aUfcUfuGfaUfuUfuggCfuCfuGfgAfgsAfsu
AD-52651.1	A-108835.1	CfgAfuGfuAfaAfAfAfuUfuUfaGfcCfaAf	A-108343.2	uUfgGfcUfaAfaAfuuuUfuAfcAfuCfcsUfsc
AD-52652.1	A-108843.1	GfuCfuUfaAfaGfAfCfuUfuGfuCfcAfuAf	A-108359.2	uAfuGfgAfcAfaAfgucUfuUfaAfgAfcCfsa
AD-52653.1	A-108851.1	CfaAfcAfuAfuUfUfGfaUfcAfgUfcUfuUf	A-108375.2	aAfaGfaCfuGfaUfcaaAfuAfuGfuUfsgAfs
AD-52654.1	A-108859.1	AfcUfgAfgAfaGfAfAfcUfaCfaUfaUfaAf	A-108391.2	uUfaUfaUfgUfaGfuucUfuCfuCfaGfusUfsc
AD-52656.1	A-108828.1	CfcAfgAfgCfcAfAfAfaUfcAfaGfaUfuUf	A-108329.2	aAfaUfcUfuGfaUfuuuGfgCfuCfuGfgsAfs
AD-52657.1	A-108836.1	GfaUfgUfaAfaAfAfUfuUfuAfgCfcAfaUf	A-108345.2	aUfuGfgCfuAfaAfaUfuUfaCfaUfcsGfsu
AD-52658.1	A-108844.1	UfcUfuAfaAfgAfCfUfuUfgUfcCfaUfaAf	A-108361.2	uUfaUfgGfaCfaAfaguCfuUfuAfaGfasCfsc
AD-52659.1	A-108852.1	AfaCfaUfaUfuUfGfAfuCfaGfuCfuUfuUf	A-108377.2	aAfaAfgAfcUfgAfucaAfaUfaUfgUfusGfsa
AD-52660.1	A-108860.1	CfuGfaGfaAfgAfAfCfuAfcAfuAfuAfaAf	A-108393.2	uUfuAfuAfuGfuAfguuCfuUfcUfcAfgsUfsu
AD-52661.1	A-108821.1	AfaUfuAfaGfcUfCfCfuUfcUfuUfuUfaUf	A-108315.2	aUfaAfaAfaGfaAfggaGfcUfuAfaUfusGfsu
AD-52662.1	A-108829.1	AfaAfuCfaAfgAfUfUfuGfcUfaUfgUfuAf	A-108331.2	uAfaCfaUfaGfcAfaauCfuUfgAfuUfusUfsg
AD-52663.1	A-108837.1	UfuCfaGfuUfgGfGfAfcAfuGfgUfcUfuAf	A-108347.2	uAfaGfaCfcAfuGfuuccCfaAfcUfgAfasGfsg
AD-52664.1	A-108845.1	GfgGfcCfaAfaUfUfaUfaUfgAfcAfuAfuUf	A-108363.2	aAfuAfuGfuCfaUfuuaUfuUfgGfcCfcsUfsu
AD-52665.1	A-108853.1	AfcAfuAfuUfuGfAfUfcAfgUfcUfuUfuUf	A-108379.2	aAfaAfaGfaCfuGfaucAfaAfuAfuGfusUfsg
AD-52666.1	A-108861.1	AfgAfaCfuAfcAfUfaAfaAfcUfaCfaAf	A-108395.2	uUfgUfaGfuUfuAfuauGfuAfgUfuCfusUfsc
AD-52667.1	A-108822.1	AfuUfaAfgCfuCfCfUfuCfuUfuUfuAfuUf	A-108317.2	aAfuAfaAfaAfgAfggAfgCfuUfaAfusUfsg

AD-52668.1	A-108830.1	AfgAfuUfuGfcUfAfUfgUfuAfgAfcGfaUf	A-108333.2	aUfcGfuCfuAfaCfaUaGfcAfaAfuCfusUfsg
AD-52669.1	A-108838.1	UfcAfgUfuGfgGfAfCfaUfgGfuCfuUfaAf	A-108349.2	uUfaAfgAfcCfaUfgucCfcAfaCfuGfasAfsG
AD-52670.1	A-108846.1	GfgCfcAfaAfuUfAfAfuGfaCfaUfaUfuUf	A-108365.2	aAfaUfaUfgUfcAfuuaAfuUfuGfgCfcsCfsu
AD-52671.1	A-108854.1	CfaUfaUfuUfgAfUfCfaGfuCfuUfuUfuAf	A-108381.2	uAfaAfaAfgAfcUfgauCfaAfaUfaUfGfsUfsu
AD-52672.1	A-108862.1	UfaCfaUfaUfaAfAfCfuAfcAfaGfuCfaAf	A-108397.2	uUfgAfcUfuGfuAfguuUfaUfaUfgUfasGfsu
AD-52673.1	A-108823.1	UfuUfaAfuUfgUfUfCfcUfcUfaGfuUfaUf	A-108319.2	aUfaAfcUfaGfaGfgaaCfaAfuAfaAfafAfsG
AD-52674.1	A-108831.1	UfuGfcUfaUfgUfUfAfgAfcGfaUfgUfaAf	A-108335.2	uUfaCfaUfcGfuCfuuaCfaUfaGfcAfafAfsu
AD-52675.1	A-108839.1	CfaGfuUfgGfgAfCfaGfuGfgUfcUfuAfaAf	A-108351.2	uUfuAfaGfaCfcAfuguCfcCfaAfcUfGfsAfsa
AD-52676.1	A-108847.1	AfaAfuUfaAfuGfAfCfaUfaUfuUfcAfaAf	A-108367.2	uUfuGfaAfaUfaUfgucAfuUfaAfuUfusGfsG
AD-52677.1	A-108855.1	GfaUfcAfgUfcUfUfUfuUfaUfgAfuCfuAf	A-108383.2	uAfgAfuCfaUfaAfaaaGfaCfuGfaUfcsAfsa
AD-52678.1	A-108863.1	AfcAfuAfuAfaAfCfUfaCfaAfgUfcAfaAf	A-108399.2	uUfuGfaCfuUfgUfaguUfuAfuAfuGfusAfsG
AD-52679.1	A-108824.1	UfuUfaUfuGfuUfCfCfuCfuAfgUfuAfuUf	A-108321.2	aAfuAfaCfuAfgAfggaAfcAfaUfaAfafAfsa
AD-52680.1	A-108832.1	UfgCfuAfuGfuUfAfGfaCfGafuGfuAfaAf	A-108337.2	uUfuAfcAfuCfGufcuaAfcAfuAfgCfasAfsa
AD-52681.1	A-108840.1	GfgGfaCfaUfgGfUfCfuUfaAfaGfaCfuUf	A-108353.2	aAfgUfcUfuUfaAfgacCfaUfgUfcCfcsAfsa
AD-52682.1	A-108848.1	UfgAfcAfuAfuUfUfCfaAfaAfaCfuCfaAf	A-108369.2	uUfgAfgUfuUfuUfgaaAfuAfuGfuCfasUfsu
AD-52683.1	A-108856.1	AfuCfaGfuCfuUfUfUfuAfuGfaUfcUfaUf	A-108385.2	aUfaGfaUfcAfuAfaaaAfgAfcUfgAfusCfsa
AD-52684.1	A-108864.1	CfaUfaUfaAfaCfUfAfcAfaGfuCfaAfaAf	A-108401.2	uUfuUfgAfcUfuGfuagUfuUfaUfaUfGfsUfsa
AD-52685.1	A-108872.1	CfuUfgAfaCfuCfAfAfcUfcAfaAfaCfuUf	A-108417.2	aAfgUfuUfuGfaGfuugAfgUfuCfaAfgsUfsg
AD-52686.1	A-108880.1	CfuAfcUfuCfaAfCfAfaAfaAfgUfgAfaAf	A-108433.2	uUfuCfaCfuUfuUfuguUfgAfaGfuAfgsAfsa
AD-52687.1	A-108888.1	AfaGfaGfcAfaCfUfAfaCfuAfaCfuUfaAf	A-108449.2	uUfaAfgUfuAfgUfuagUfuGfcUfcUfusCfsu

AD-52688.1	A-108896.1	AfaAfcAfaGfaUfAfAfuAfgCfaUfcAfaAf	A-108465.2	uUfuGfaUfgCfuAfuaUfcUfuGfuUfusUfsu
AD-52689.1	A-108904.1	GfcAfuAfgUfcAfAfAfuAfaAfaGfaAfaUf	A-108481.2	aUfuUfcUfuUfuAfuuuGfaCfuAfuGfcsUfsg
AD-52690.1	A-108865.1	AfuAfuAfaAfcUfAfCfaAfgUfcAfaAfaAf	A-108403.2	uUfuUfuGfaCfuUfguaGfuUfuAfuAfusGfsu
AD-52691.1	A-108873.1	GfaAfcUfcAfaCfUfCfaAfaAfcUfuGfaAf	A-108419.2	uUfcAfaGfuUfuUfgagUfuGfaGfuUfcsAfsa
AD-52692.1	A-108881.1	UfaCfuUfcAfaCfAfAfaAfaGfuGfaAfaUf	A-108435.2	aUfuUfcAfcUfuUfuugUfuGfaAfgUfasGfsa
AD-52693.1	A-108889.1	AfgAfgCfaAfcUfAfAfcUfaAfcUfuAfaUf	A-108451.2	aUfuAfaGfuUfaGfuuaGfuUfgCfuCfusUfsc
AD-52694.1	A-108897.1	GfaUfaAfuAfgCfAfUfcAfaAfgAfcCfuUf	A-108467.2	aAfgGfuCfuUfuGfaugCfuAfuUfaUfcsUfsu
AD-52695.1	A-108905.1	CfaUfaGfuCfaAfAfUfaAfaAfgAfaAfuAf	A-108483.2	uAfuUfuCfuUfuUfaauUfgAfcUfaUfcsUfsu
AD-52696.1	A-108866.1	UfaUfaAfaCfuAfCfAfaGfuCfaAfaAfaUf	A-108405.2	aUfuUfuUfgAfcUfuguAfgUfuUfaUfasUfsg
AD-52697.1	A-108874.1	AfaCfuCfaAfcUfCfAfaAfaCfuUfgAfaAf	A-108421.2	uUfuCfaAfgUfuUfugaGfuUfgAfgUfusCfsa
AD-52698.1	A-108882.1	AfcUfuCfaAfcAfAfAfaAfgUfgAfaAfuAf	A-108437.2	uAfuUfuCfaCfuUfuuuGfuUfgAfaGfusAfsa
AD-52699.1	A-108890.1	GfaGfcAfaCfuAfAfCfuAfaCfuUfaAfuUf	A-108453.2	aAfuUfaAfgUfuAfguuAfgUfuGfcUfcsUfsu
AD-52700.1	A-108898.1	AfaCfcAfaCfaGfCfAfuAfgUfcAfaAfuAf	A-108469.2	uAfuUfuGfaCfuAfugcUfgUfuGfgUfusUfsa
AD-52701.1	A-108906.1	AfgUfcAfaAfuAfAfAfaGfaAfaUfaGfaAf	A-108485.2	uUfcUfaUfuUfcUfuuuAfuUfuGfaCfusAfsu
AD-52702.1	A-108867.1	AfgUfcAfaAfaAfUfGfaAfgAfgGfuAfaAf	A-108407.2	uUfuAfcCfuCfuUfcuUfuUfuGfaCfusUfsg
AD-52703.1	A-108875.1	CfuUfgAfaAfgCfCfUfcCfuAfgAfaGfaAf	A-108423.2	uUfcUfuCfuAfgGfaggCfuUfuCfaAfgsUfsu
AD-52704.1	A-108883.1	CfuUfcAfaCfaAfAfAfaGfuGfaAfaUfaUf	A-108439.2	aUfaUfuUfcAfcUfuuuUfgUfuGfaAfgsUfsa
AD-52705.1	A-108891.1	CfaAfcUfaAfcUfAfAfcUfuAfaUfuCfaAf	A-108455.2	uUfgAfaUfuAfaGfuuaGfuUfaGfuUfcsUfsu
AD-52706.1	A-108899.1	AfcCfaAfcAfgCfAfUfaGfuCfaAfaUfaAf	A-108471.2	uUfaUfuUfgAfcUfaugCfuGfuUfgGfusUfsu
AD-52707.1	A-108907.1	GfaAfcCfcAfcAfgGfaAfaAfuUfuCfuCfuAf	A-108487.2	uAfgAfgAfaAfuUfucuGfuGfgGfuUfcsUfsu

AD-52708.1	A-108868.1	GfaAfuAfuGfuCfAfCfuUfgAfaCfuCfaAf	A-108409.2	uUfgAfgUfuCfaAfgugAfcAfuAfuUfcsUfsu
AD-52709.1	A-108876.1	UfgAfaAfgCfcUfcCfuAfgAfaGfaAfaAf	A-108425.2	uUfuUfcUfuCfuAfggaGfgCfuUfuCfasAfsu
AD-52710.1	A-108884.1	UfuCfaAfcAfaAfAfAfgUfgAfaAfuAfuUf	A-108441.2	aAfuAfuUfuCfaCfuuuUfuGfuUfgAfasGfsu
AD-52711.1	A-108892.1	AfaCfuAfaCfuAfAfCfuUfaAfuUfcAfaAf	A-108457.2	uUfuGfaAfuUfaAfguuAfgUfuAfgUfusGfsc
AD-52712.1	A-108900.1	CfcAfaCfaGfcAfUfAfgUfcAfaAfuAfaAf	A-108473.2	uUfuAfuUfuGfaCfuauGfcUfgUfuGfgsUfsu
AD-52713.1	A-108908.1	AfaCfcCfaCfaGfAfAfaUfuUfcUfcUfaUf	A-108489.2	aUfaGfaGfaAfaUfuucUfgUfgGfgUfusCfsu
AD-52714.1	A-108869.1	UfgUfcAfcUfuGfAfAfcUfcAfaCfuCfaAf	A-108411.2	uUfgAfgUfuGfaGfuucAfaGfuGfaCfasUfsa
AD-52715.1	A-108877.1	GfaAfaGfcCfuCfCfuUfaGfaAfgAfaAfaAf	A-108427.2	uUfuUfuCfuUfcUfaggAfgGfcUfuUfcsAfsa
AD-52716.1	A-108885.1	AfaUfaUfuUfaGfAfAfgAfgCfaAfcUfaAf	A-108443.2	uUfaGfuUfgCfuCfuucUfaAfaUfaUfusUfsc
AD-52717.1	A-108893.1	AfcUfaAfcUfaAfCfuUfaAfuUfuCfaAfaAf	A-108459.2	uUfuUfgAfaUfuAfaguUfaGfuUfaGfusUfsg
AD-52718.1	A-108901.1	CfaAfcAfgCfaUfAfGfuCfaAfaUfaAfaAf	A-108475.2	uUfuUfaUfuUfgAfcuaUfgCfuGfuUfgsGfsu
AD-52719.1	A-108909.1	CfcAfcAfgAfaAfUfUfuCfuCfuAfuCfuUf	A-108491.2	aAfgAfuAfgAfgAfaauUfuCfuGfuGfgsGfsu
AD-52720.1	A-108870.1	GfuCfaCfuUfgAfAfCfuCfaAfcUfcAfaAf	A-108413.2	uUfuGfaGfuUfgAfguuCfaAfgUfgAfcAfsu
AD-52721.1	A-108878.1	CfuCfcUfaGfaAfGfAfaAfaAfaUfuCfuAf	A-108429.2	uAfgAfaUfuUfuUfucuUfcUfaGfgAfgsGfsc
AD-52722.1	A-108886.1	AfuUfuAfgAfaGfAfGfcAfaCfuAfaCfuAf	A-108445.2	uAfgUfuAfgUfuGfcucUfuCfuAfaAfusAfsu
AD-52723.1	A-108894.1	CfuAfaCfuAfaCfuUfUfaAfuUfcAfaAfaUf	A-108461.2	aUfuUfuGfaAfuUfaagUfuAfgUfuAfgsUfsu
AD-52724.1	A-108902.1	CfaGfcAfuAfgUfcAfaAfuAfaAfaGfaAf	A-108477.2	uUfcUfuUfuAfuUfugaCfuAfuGfcUfgsUfsu
AD-52725.1	A-108910.1	GfaAfaUfaAfgAfAfAfuGfuAfaAfaCfaUf	A-108493.2	aUfgUfuUfuAfcAfuuuCfuUfaUfuUfcsAfsu
AD-52726.1	A-108871.1	UfcAfcUfuGfaAfCfuUfcAfaCfuCfaAfaAf	A-108415.2	uUfuUfgAfgUfuGfaguUfcAfaGfuGfasCfsa
AD-52727.1	A-108879.1	UfcUfaCfuUfcAfAfCfaAfaAfaGfuGfaAf	A-108431.2	uUfcAfcUfuUfuUfguuGfaAfgUfaGfasAfsu

AD-52728.1	A-108887.1	UfuUfaGfaAfgAfGfCfaAfcUfaAfcUfaAf	A-108447.2	uUfaGfuUfaGfuUfgcuCfuUfcUfaAfasUfsa
AD-52729.1	A-108895.1	AfaAfaCfaAfgAfUfAfaUfaGfcAfuCfaAf	A-108463.2	uUfgAfuGfcUfaUfuauCfuUfgUfuUfusUfsc
AD-52730.1	A-108903.1	AfgCfaUfaGfuCfAfAfaUfaAfaAfgAfaAf	A-108479.2	uUfuCfuUfuUfaUfuugAfcUfaUfgCfusGfsu
AD-52731.1	A-108958.1	AfgAfcCfcAfgCfAfAfcUfcUfcAfaGfuUf	A-108495.2	aAfcUfuGfaGfaGfuugCfuGfgGfuCfusGfsa
AD-52732.1	A-108966.1	AfgUfcCfaUfgGfAfCfaUfuAfaUfuCfaAf	A-108511.2	uUfgAfaUfuAfaUfgucCfaUfgGfaCfusAfsc
AD-52733.1	A-108974.1	GfaUfgGfaUfcAfCfAfaAfaCfuUfcAfaUf	A-108527.2	aUfuGfaAfgUfuUfuguGfaUfcCfaUfcsUfsa
AD-52734.1	A-108982.1	CfuAfgAfgAfaGfAfUfaUfaCfuCfcAfuAf	A-108543.2	uAfuGfgAfgUfaUfaucUfuCfuCfuAfgsGfsc
AD-52735.1	A-108990.1	AfaAfgAfcAfaCfAfAfaCfaUfuAfuAfuUf	A-108559.2	aAfuAfuAfaUfgUfuugUfuGfuCfuUfusCfsc
AD-52736.1	A-108998.1	CfaUfuAfuAfuUfGfAfaUfaUfuCfuUfuUf	A-108575.2	aAfaAfgAfaUfaUfucaAfuAfuAfaUfcsUfsu
AD-52737.1	A-108959.1	GfaCfcCfaGfcAfAfCfuCfuCfaAfgUfuUf	A-108497.2	aAfaCfuUfgAfgAfguuGfcUfgGfgUfcsUfsg
AD-52739.1	A-108975.1	GfgAfuCfaCfaAfAfAfcUfuCfaAfuGfaAf	A-108529.2	uUfcAfuUfgAfaGfuuuUfgUfgAfuCfcsAfsu
AD-52740.1	A-108983.1	GfaAfgAfuAfuAfCfUfcCfaUfaGfuGfaAf	A-108545.2	uUfcAfcUfaUfgGfaguAfuAfuCfuUfcsUfsc
AD-52741.1	A-108991.1	GfaCfaAfcAfaAfCfAfuUfaUfaUfuGfaAf	A-108561.2	uUfcAfaUfaUfaAfuguUfuGfuUfgUfcsUfsu
AD-52742.1	A-108999.1	GfgGfaAfaUfcAfCfGfaAfaCfcAfaCfuAf	A-108577.2	uAfgUfuGfgUfuUfcguGfaUfuUfcCfcsAfsa
AD-52743.1	A-108960.1	AfcCfcAfgCfaAfCfUfcUfcAfaGfuUfuUf	A-108499.2	aAfaAfcUfuGfaGfaguUfgCfuGfgGfusCfsu
AD-52744.1	A-108968.1	GfgAfcAfuUfaAfUfUfcAfaCfaUfcGfaAf	A-108515.2	uUfcGfaUfgUfuGfaauUfaAfuGfuCfcsAfsu
AD-52745.1	A-108976.1	GfaUfcAfcAfaAfAfCfuUfcAfaUfgAfaAf	A-108531.2	uUfuCfaUfuGfaAfguuUfuGfuGfaUfcsCfsa
AD-52746.1	A-108984.1	AfcUfcCfaUfaGfUfGfaAfgCfaAfuCfuAf	A-108547.2	uAfgAfuUfgCfuUfcacUfaUfgGfaGfusAfsu
AD-52747.1	A-108992.1	AfcAfaCfaAfaCfAfUfuAfuAfuUfgAfaUf	A-108563.2	aUfuCfaAfuAfuAfaugUfuUfgUfuGfusCfsu
AD-52748.1	A-109000.1	GfgAfaAfuCfaCfGfAfaAfcCfaAfcUfaUf	A-108579.2	aUfaGfuUfgGfuUfucgUfgAfuUfuCfcsCfsa

AD-52749.1	A-108961.1	CfcCfaGfcAfaCfUfCfuCfaAfgUfuUfuUf	A-108501.2	aAfaAfaCfuUfgAfgagUfuGfcUfgGfgsUfsc
AD-52750.1	A-108969.1	GfaCfaUfuAfaUfUfCfaAfcAfuCfgAfaUf	A-108517.2	aUfuCfgAfuGfuUfgaaUfuAfaUfgUfcsCfsc
AD-52751.1	A-108977.1	AfaCfgUfgGfgAfGfAfaCfuAfcAfaAfuAf	A-108533.2	uAfuUfuGfuAfgUfucuCfcCfaCfgUfusUfsc
AD-52752.1	A-108985.1	CfuCfaAfuAfgUfGfAfaGfcAfaUfcUfaAf	A-108549.2	uUfaGfaUfuGfcUfucaCfuAfuGfgAfgsUfsc
AD-52753.1	A-108993.1	CfaAfcAfaAfcAfUfUfaUfaUfuGfaAfuAf	A-108565.2	uAfuUfcAfaUfaUfaauGfuUfuGfuUfgsUfsc
AD-52754.1	A-109001.1	GfaAfaUfcAfcGfAfAfaCfcAfaCfuAfuAf	A-108581.2	uAfuAfgUfuGfgUfuucGfuGfaUfuUfcsCfsc
AD-52755.1	A-108962.1	CfuCfuCfaAfgUfUfUfuUfcAfuGfuCfuAf	A-108503.2	uAfgAfcAfuGfaAfaaaCfuUfgAfgAfgsUfsu
AD-52756.1	A-108970.1	AfcAfuUfaAfuUfCfAfaCfaUfcGfaAfuAf	A-108519.2	uAfuUfcGfaUfgUfugaAfuUfaAfuGfusCfsc
AD-52757.1	A-108978.1	GfgGfaGfaAfcUfAfCfaAfaUfaUfgGfuUf	A-108535.2	aAfcCfaUfaUfuUfguaGfuUfcUfcCfcsAfsc
AD-52758.1	A-108986.1	UfcCfaUfaGfuGfAfAfgCfaAfuCfuAfaUf	A-108551.2	aUfuAfgAfuUfgCfuucAfcUfaUfgGfasGfsu
AD-52759.1	A-108994.1	AfaCfaAfaCfaUfUfAfaAfuUfgAfaUfaUf	A-108567.2	aUfaUfuCfaAfuAfuuaUfgUfuUfgUfusGfsu
AD-52760.1	A-109002.1	UfgGfcAfaUfgUfCfCfcCfaAfuGfcAfaUf	A-108583.2	aUfuGfcAfuUfgGfggaCfaUfuGfcCfasGfsu
AD-52761.1	A-108963.1	UfcAfgGfuAfgUfCfCfaUfgGfaCfaUfuAf	A-108505.2	uAfaUfgUfcCfaUfggaCfuAfcCfuGfasUfsc
AD-52762.1	A-108971.1	UfuAfaUfuCfaAfCfAfuCfgAfaUfaGfaUf	A-108521.2	aUfcUfaUfuCfgAfuguUfgAfaUfuAfasUfsg
AD-52763.1	A-108979.1	GfgAfgAfaCfuAfcAfaAfuAfuGfgUfuUf	A-108537.2	aAfaCfcAfuAfuUfuguAfgUfuCfuCfcsCfsc
AD-52764.1	A-108987.1	CfcAfuAfgUfgAfAfGfcAfaUfcUfaAfuUf	A-108553.2	aAfuUfaGfaUfuGfcuuCfaCfuAfuGfgsAfsg
AD-52765.1	A-108995.1	AfcAfaAfcAfuUfAfUfaUfuGfaAfuAfuUf	A-108569.2	aAfuAfuUfcAfaUfaaaAfuGfuUfuGfusUfsg
AD-52766.1	A-109003.1	AfaUfgCfaAfuCfCfCfGfaAfaAfcAfaAf	A-108585.2	uUfuGfuUfuUfcCfgggAfuUfgCfaUfusGfsg
AD-52767.1	A-108964.1	CfaGfgUfaGfuCfCfAfuGfgAfcAfuUfaAf	A-108507.2	uUfaAfuGfuCfcAfuggAfcUfaCfcUfgsAfsu
AD-52768.1	A-108972.1	UfuCfaAfcAfuCfGfAfaUfaGfaUfgGfaUf	A-108523.2	aUfcCfaUfcUfaUfucgAfuGfuUfgAfasUfsu

AD-52769.1	A-108980.1	GfuUfgGfgCfcUfAfGfaGfaAfgAfuAfuAf	A-108539.2	uAfuAfuCfuUfcUfcuaGfgCfcCfaAfcsCfsa
AD-52770.1	A-108988.1	CfaUfaGfuGfaAfGfCfaAfuCfuAfaUfuAf	A-108555.2	uAfaUfuAfgAfuUfgcuUfcAfcUfaUfsgGfsa
AD-52771.1	A-108996.1	AfaCfaUfuAfuAfUfUfgAfaUfaUfuCfuUf	A-108571.2	aAfgAfaUfaUfuCfaauAfuAfaUfgUfusUfsg
AD-52772.1	A-109004.1	GfcAfaUfcCfcGfGfAfaAfaCfaAfaGfaUf	A-108587.2	aUfcUfuUfgUfuUfuccGfgGfaUfuGfcsAfsu
AD-52773.1	A-108965.1	GfgUfaGfuCfcAfUfGfgAfcAfuUfaAfuUf	A-108509.2	aAfuUfaAfuGfuCfcauGfgAfcUfaCfcsUfsg
AD-52774.1	A-108973.1	AfuCfgAfaUfaGfAfUfgGfaUfcAfcAfaAf	A-108525.2	uUfuGfuGfaUfcCfaucUfaUfuCfgAfusGfsu
AD-52775.1	A-108981.1	CfcUfaGfaGfaAfGfAfuAfuAfcUfcCfaUf	A-108541.2	aUfgGfaGfuAfuAfucuUfcUfcUfaGfgsCfsc
AD-52776.1	A-108989.1	GfuUfgGfaAfgAfCfUfgGfaAfaGfaCfaAf	A-108557.2	uUfgUfcUfuUfcCfaguCfuUfcCfaAfcsUfsc
AD-52777.1	A-108997.1	AfcAfuUfaUfaUfUfGfaAfuAfuUfcUfuUf	A-108573.2	aAfaGfaAfuAfuUfcaaUfaUfaAfuGfusUfsu
AD-52778.1	A-109005.1	CfaAfuCfcCfGfAfAfaAfcAfaAfgAfuUf	A-108589.2	aAfuCfuUfuGfuUfuucCfGfgAfuUfsgCfsa
AD-52779.1	A-109013.1	CfuAfcUfuGfgGfAfUfcAfcAfaAfgCfaAf	A-108605.2	uUfgCfuUfuGfuGfaucCfcAfaGfuAfgsAfsa
AD-52780.1	A-109021.1	AfcAfaCfcUfaAfAfUfgGfuAfaAfuAfuAf	A-108621.2	uAfuAfuUfuAfcCfaauUfaGfgUfuGfusUfsu
AD-52781.1	A-109029.1	AfuCfcAfuCfcAfAfCfaGfaUfuCfaGfaAf	A-108637.2	uUfcUfgAfaUfcUfguuGfgAfuGfgAfusCfsa
AD-52782.1	A-109037.1	AfaCfuGfaGfgCfAfAfaUfuUfaAfaAfgAf	A-108653.2	uCfuUfuUfaAfaUfuugCfcUfcAfgUfusCfsa
AD-52783.1	A-109045.1	AfgAfgUfaUfgUfGfUfaAfaAfaUfcUfgUf	A-108669.2	aCfaGfaUfuUfuUfacaCfaUfaCfuCfusGfsu
AD-52784.1	A-109006.1	AfaUfcCfcGfgAfAfAfaCfaAfaGfaUfuUf	A-108591.2	aAfaUfcUfuUfgUfuuuCfcGfgGfaUfusGfsc
AD-52785.1	A-109014.1	UfaCfuUfgGfgAfUfCfaCfaAfaGfcAfaAf	A-108607.2	uUfuGfcUfuUfgUfgauCfcCfaAfgUfasGfsa
AD-52786.1	A-109022.1	CfaAfcCfuAfaAfUfGfgUfaAfaUfaUfaAf	A-108623.2	uUfaUfaUfuUfaCfcauUfuAfgGfuUfsgUfsu
AD-52787.1	A-109030.1	UfuGfaAfuGfaAfCfUfgAfgGfcAfaAfuUf	A-108639.2	aAfuUfuGfcCfuCfaguUfcAfuUfcAfasAfsg
AD-52788.1	A-109038.1	AfcUfgAfgGfcAfAfAfuUfuAfaAfaGfgAf	A-108655.2	uCfcUfuUfuAfaAfuuuGfcCfuCfaGfusUfsc

AD-52789.1	A-109046.1	GfaGfuAfuGfuGfUfAfaAfaAfuCfuGfuAf	A-108671.2	uAfcAfgAfuUfuUfuacAfcAfuAfcUfcsUfsg
AD-52791.1	A-109015.1	AfcUfuGfgGfaUfCfAfcAfaAfgCfaAfaAf	A-108609.2	uUfuUfgCfuUfuGfugaUfcCfcAfaGfusAfs
AD-52792.1	A-109023.1	AfuGfgUfaAfaUfAfUfaAfcAfaAfcCfaAf	A-108625.2	uUfgGfuUfuGfuUfaUfuUfaCfcAfusUfsu
AD-52793.1	A-109031.1	UfgAfaUfgAfaCfUfGfaGfgCfaAfaUfuUf	A-108641.2	aAfaUfuUfgCfcUfcagUfuCfaUfuCfasAfsa
AD-52794.1	A-109039.1	CfuGfaGfgCfaAfAfUfuUfaAfaAfgGfcAf	A-108657.2	uGfcCfuUfuUfaAfaUfuUfgCfcUfcAfgsUfsu
AD-52795.1	A-109047.1	AfgUfaUfgUfgUfAfAfaAfaUfcUfgUfaAf	A-108673.2	uUfaCfaGfaUfuUfuUfaCfaUfaCfusCfsu
AD-52796.1	A-109008.1	GfaAfaAfcAfaAfGfAfuUfuGfgUfgUfuUf	A-108595.2	aAfaCfaCfcAfaAfucuUfuGfuUfuUfcsCfsg
AD-52797.1	A-109016.1	AfgUfgUfgGfaGfAfAfaAfcAfaCfcUfaAf	A-108611.2	uUfaGfgUfuGfuUfuUfcCfaCfaCfusCfsa
AD-52798.1	A-109024.1	GfuCfuCfaAfaAfUfGfgAfaGfgUfuAfuAf	A-108627.2	uAfuAfaCfcUfuCfcUfuUfgAfgAfcUfsu
AD-52799.1	A-109032.1	GfaAfuGfaAfcUfGfAfgGfcAfaAfuUfuAf	A-108643.2	uAfaAfuUfuGfcCfucaGfuUfcAfuUfcsAfsa
AD-52800.1	A-109040.1	UfgAfgGfcAfaAfUfUfuAfaAfaGfgCfaAf	A-108659.2	uUfgCfcUfuUfuAfaUfuUfgCfcUfcGfsu
AD-52801.1	A-109048.1	GfuAfuGfuGfuAfAfAfaAfuCfuGfuAfaUf	A-108675.2	aUfuAfcAfgAfuUfuUfuAfcAfuAfcUfsc
AD-52802.1	A-109009.1	AfaAfaCfaAfaGfAfUfuUfgGfuGfuUfuUf	A-108597.2	aAfaAfcAfcCfaAfaUfuUfgUfuUfusCfsc
AD-52803.1	A-109017.1	GfuGfuGfgAfgAfAfAfaCfaAfcCfuAfaAf	A-108613.2	uUfuAfgGfuUfgUfuUfuCfuCfcAfcAfcUfsc
AD-52804.1	A-109025.1	AfuGfgAfaGfgUfUfAfuAfcUfcUfaUfaAf	A-108629.2	uUfaUfaGfaGfuAfuUfuCfcUfuCfcAfuUfsu
AD-52805.1	A-109033.1	AfaUfgAfaCfuGfAfGfgCfaAfaUfuUfaAf	A-108645.2	uUfaAfaUfuUfgCfcUfcAfuUfusCfsa
AD-52806.1	A-109041.1	GfaGfgCfaAfaUfUfUfaAfaAfgGfcAfaUf	A-108661.2	aUfuGfcCfuUfuUfaUfuUfgCfcUfcAfs
AD-52807.1	A-109049.1	UfaUfgUfgUfaAfAfAfaUfcUfgUfaAfuAf	A-108677.2	uAfuUfaCfaGfaUfuUfuUfaCfaUfasCfsu
AD-52808.1	A-109010.1	AfcAfaAfgAfuUfUfGfgUfgUfuUfuCfuAf	A-108599.2	uAfgAfaAfaCfaCfaAfuCfuUfuGfusUfsu
AD-52809.1	A-109018.1	UfgUfgGfaGfaAfAfAfcAfaCfcUfaAfaUf	A-108615.2	aUfuUfaGfgUfuGfuUfuUfcCfaCfasCfsu

AD-52810.1	A-109026.1	UfgGfaAfgGfuUfAfUfaCfuCfuAfuAfaAf	A-108631.2	uUfuAfuAfgAfgUfaaAfcCfuUfcCfasUfsu
AD-52811.1	A-109034.1	AfuGfaAfcUfgAfGfGfcAfaAfuUfuAfaAf	A-108647.2	uUfuAfaAfuUfuGfccuCfaGfuUfcAfusUfsc
AD-52812.1	A-109042.1	AfgGfcAfaAfuUfUfAfaAfaGfgCfaAfuAf	A-108663.2	uAfuUfgCfcUfuUfuuaAfuUfuGfcCfusCfsa
AD-52813.1	A-109011.1	AfaGfaUfuUfgGfUfGfuUfuUfcUfaCfuUf	A-108601.2	aAfgUfaGfaAfaAfcacCfaAfaUfcUfusUfsg
AD-52814.1	A-109019.1	AfaAfcAfaCfcUfAfAfaUfgGfuAfaAfuAf	A-108617.2	uAfuUfuAfcCfaUfuuaGfgUfuGfuUfusUfsc
AD-52815.1	A-109027.1	AfuAfcUfcUfaUfAfAfaAfuCfaAfcCfaAf	A-108633.2	uUfgGfuUfgAfuUfuuaUfaGfaGfuAfusAfsa
AD-52816.1	A-109035.1	UfgAfaCfuGfaGfGfCfaAfaUfuUfaAfaAf	A-108649.2	uUfuUfaAfaUfuUfgccUfcAfgUfuCfasUfsu
AD-52817.1	A-109043.1	GfgCfaAfaUfuUfAfAfaAfgGfcAfaUfaAf	A-108665.2	uUfaUfuGfcCfuUfuuaAfaUfuUfgCfcsUfsc
AD-52818.1	A-109012.1	UfuUfuCfuAfcUfUfGfgGfaUfcAfcAfaAf	A-108603.2	uUfuGfuGfaUfcCfcaaGfuAfgAfaAfasCfsa
AD-52819.1	A-109020.1	AfaCfaAfcCfuAfAfAfuGfgUfaAfaUfaUf	A-108619.2	aUfaUfuUfaCfcAfuuuAfgGfuUfgUfusUfsu
AD-52820.1	A-109028.1	UfaCfuCfuAfuAfAfAfaUfcAfaCfcAfaAf	A-108635.2	uUfuGfgUfuGfaUfuuuAfuAfgAfgUfasUfsa
AD-52821.1	A-109036.1	GfaAfcUfgAfgGfCfAfaAfuUfuAfaAfaAf	A-108651.2	uUfuUfuAfaAfuUfugcCfuCfaGfuUfcsAfsu
AD-52822.1	A-109044.1	CfaGfaGfuAfuGfUfGfuAfaAfaAfuCfuUf	A-108667.2	aAfgAfuUfuUfuAfcacAfuAfcUfcUfgsUfsg

We claim:

1. A double-stranded ribonucleic acid (dsRNA) agent for inhibiting expression of Angiopoietin-like 3 (ANGPTL3), comprising a sense strand and an antisense strand,

wherein the antisense strand comprises at least 17 contiguous nucleotides which differ by no more than three nucleotides from the complement of nucleotides 244-307 of SEQ ID NO:1,

wherein all of the nucleotides of the sense strand and all of the nucleotides of the antisense strand are modified nucleotides,

wherein at least one of the modified nucleotides is selected from the group consisting of a 2'-O-methyl modified nucleotide, a 2'-fluoro modified nucleotide, a nucleotide comprising a 5'-phosphorothioate group, an abasic nucleotide, and a 2'-amino modified nucleotide, and

wherein a ligand comprising an N-acetylgalactosamine (GalNAc) derivative is conjugated to at least one strand of the dsRNA agent.

2. A double-stranded ribonucleic acid (dsRNA) agent for inhibiting expression of Angiopoietin-like 3 (ANGPTL3), wherein the dsRNA agent comprises a sense strand and an antisense strand,

wherein the antisense strand comprises at least 17 contiguous nucleotides which differ by no more than three nucleotides from the complement of nucleotides 256-306 of SEQ ID NO:1,

wherein all of the nucleotides of the sense strand and all of the nucleotides of the antisense strand are modified nucleotides,

wherein at least one of the modified nucleotides is selected from the group consisting of a 2'-O-methyl modified nucleotide, a 2'-fluoro modified nucleotide, a nucleotide comprising a 5'-phosphorothioate group, an abasic nucleotide, and a 2'-amino modified nucleotide, and

wherein a ligand comprising an N-acetylgalactosamine (GalNAc) derivative is conjugated to at least one strand of the dsRNA agent.

3. A double-stranded ribonucleic acid (dsRNA) agent for inhibiting expression of Angiopoietin-like 3 (ANGPTL3), wherein the dsRNA agent comprises a sense strand and an antisense strand,

wherein the antisense strand comprises at least 17 contiguous nucleotides which differ by no more than three nucleotides from the complement of nucleotides 266-299 of SEQ ID NO:1,

wherein all of the nucleotides of the sense strand and all of the nucleotides of the antisense strand are modified nucleotides,

wherein at least one of the modified nucleotides is selected from the group consisting of a 2'-O-methyl modified nucleotide, a 2'-fluoro modified nucleotide, a nucleotide comprising a 5'-phosphorothioate group, an abasic nucleotide, and a 2'-amino modified nucleotide, and

wherein a ligand comprising an N-acetylgalactosamine (GalNAc) derivative is conjugated to at least one strand of the dsRNA agent.

4. The dsRNA agent of claim 1, wherein each strand is independently 19-25 nucleotides in length.

5. The dsRNA agent of claim 1, wherein the dsRNA agent comprises at least one phosphorothioate or methylphosphonate internucleotide linkage.

6. The dsRNA of claim 1, wherein the GalNAc (N-acetylgalactosamine) derivative is attached through a bivalent or trivalent branched linker.

7. The dsRNA agent of claim 1, wherein the sense and antisense strands comprise nucleotide sequences selected from the group consisting of

5' - AUCAGUCUUUUUAUGAUCUAU -3' (SEQ ID NO: 312) and

5' - AUAGAUCAUAAAAAGACUGAUC -3' (SEQ ID NO: 497);

5' - GAUCAGUCUUUUUAUGAUCUA -3' (SEQ ID NO: 403) and

5' - UAGAUCAUAAAAAGACUGAUCAA -3' (SEQ ID NO: 588);

5' - AUUUGAUCAGUCUUUUUAU -3' (SEQ ID NO: 61) and

5' - AUAAAAAGACUGAUCAAAU -3' (SEQ ID NO: 123);
 5' - UAUUUGAUCAGUCUUUUUA -3' (SEQ ID NO: 16) and
 5' - UAAAAAGACUGAUCAAAUA -3' (SEQ ID NO: 78);
 5' - CAUAUUUGAUCAGUCUUUUUA -3' (SEQ ID NO: 387) and
 5' - UAAAAAGACUGAUCAAAUAUGUU -3' (SEQ ID NO: 572);
 5' - ACAUAUUUGAUCAGUCUUUUU -3' (SEQ ID NO: 287) and
 5' - AAAAAGACUGAUCAAAUAUGUUG -3' (SEQ ID NO: 472);
 5' - AACAUUUUGAUCAGUCUUUU -3' (SEQ ID NO: 303) and
 5' - AAAAGACUGAUCAAAUAUGUUGA -3' (SEQ ID NO: 488);
 5' - ACAUAUUUGAUCAGUCUUU -3' (SEQ ID NO: 39) and
 5' - AAAGACUGAUCAAAUAUGU -3' (SEQ ID NO: 101);
 5' - CAACAUUUUGAUCAGUCUUU -3' (SEQ ID NO: 294) and
 5' - AAAGACUGAUCAAAUAUGUUGAG -3' (SEQ ID NO: 479);
 5' - UCAACAUUUUGAUCAGUCUU -3' (SEQ ID NO: 358) and
 5' - AAGACUGAUCAAAUAUGUUGAGU -3' (SEQ ID NO: 543);
 5' - CAACAUUUUGAUCAGUCU -3' (SEQ ID NO: 64) and
 5' - AGACUGAUCAAAUAUGUUG -3' (SEQ ID NO: 126);
 5' - CAAAAACUCAACAUUUUGAU -3' (SEQ ID NO: 321) and
 5' - AUCAAAUAUGUUGAGUUUUUGAA -3' (SEQ ID NO: 506);
 5' - UGACAUUUUCAAAAACUCAA -3' (SEQ ID NO: 351) and
 5' - UUGAGUUUUUGAAAUAUGUCAUU -3' (SEQ ID NO: 536);
 5' - AAUUAUGACAUAUUUCAA -3' (SEQ ID NO: 352) and
 5' - UUUGAAAUAUGUCAUUAUUUGG -3' (SEQ ID NO: 537);
 5' - GGCCAAAUUAAUGACAUAUUU -3' (SEQ ID NO: 285) and
 5' - AAUAUGUCAUUAUUUGGCCCU -3' (SEQ ID NO: 470); and
 5' - GGGCCAAAUUAAUGACAUAUU -3' (SEQ ID NO: 417) and
 5' - AAUAUGUCAUUAUUUGGCCCUU -3' (SEQ ID NO: 602) .

8. A cell containing the dsRNA agent of claim 1.

9. A pharmaceutical composition for inhibiting expression of an ANGPTL3 gene, comprising the dsRNA agent of claim 1.
10. The pharmaceutical composition of claim 9, wherein the dsRNA agent is present in a buffered solution.
11. An *in vitro* method of inhibiting ANGPTL3 expression in a cell, the method comprising:
 - (a) contacting the cell with the dsRNA agent of claim 1; and
 - (b) maintaining the cell produced in step (a) for a time sufficient to obtain degradation of the mRNA transcript of an ANGPTL3 gene, thereby inhibiting expression of the ANGPTL3 gene in the cell.
12. Use of the dsRNA agent of claim 1 in the manufacture of a medicament for treating a subject having a disorder that would benefit from reduction in ANGPTL3 expression, comprising that the dsRNA agent is to be administered to the subject, wherein the disorder is a disorder of lipid metabolism.
13. The use of claim 12, wherein the disorder is selected from the group consisting of hypertriglyceridemia, obesity, hyperlipidemia, atherosclerosis, diabetes, cardiovascular disease, and coronary artery disease.
14. The use of claim 12, further comprising that an additional therapeutic is to be administered to the subject.
15. The use of claim 14, wherein the additional therapeutic is a statin.
16. The use of claim 12, wherein the dsRNA agent is to be administered at a dose of 0.5 mg/kg to 50 mg/kg.

17. The use of claim 12, wherein the dsRNA agent that is to be administered to the subject causes a decrease in one or more serum lipid and/or a decrease in ANGPTL3 protein accumulation.