SEQUENCE LISTING

<110> Archemix Corporation, et al.

<120> Complement Binding Aptamers and Anti-C5 Agents Useful in the Treatment of Ocular Disorders

<130> 23239-591-061

<140> Not Yet Assigned
<141> 2007-03-08

<150> U.S.S.N. 60/780,905
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<151> 2006-09-29

<160> 102

<170> PatentIn version 3.2

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<212> DNA
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<220>
<223> synthetic aptamer

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<221> misc_feature
<223> cytosine at positions 3, 4, 6 and 37 are 2'-fluoro

<220>
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<223> uridine at positions 9, 30 and 31 are 2'-fluoro

<220>
<221> misc_feature
<222> (1)..(1)
<223> n at position 1 is 2'-fluoro cytidine or 2'-O-methyl cytidine

<220>
<221> misc_feature
<222> (2)..(2)
<223> n at position 2 is 2'-OH guanosine or 2'-O-methyl guanosine

<220>
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<222> (7)..(7)
<223> n at position 7 is 2'-OH guanosine or 2'-O-methyl guanosine

<220>
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<222> (8)..(8)

<223> n at position 8 is 2'-OH guanosine or 2'-O-methyl guanosine

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<220>
<221> misc_feature
<222> (11)..(11)
<223> n at position 11 is 2'-fluoro uridine or deoxy thymidine

<220>
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<222> (12)..(12)
<223> n at position 12 is 2'-fluoro cytosine or deoxy cytidine

<220>
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<222> (13)..(13)
<223> n at position 13 is 2'-OH adenosine or 2'-O-methyl adenosine

<220>
<221> misc_feature
<222> (14)..(14)
<223> n at position 14 is 2'-OH guanosine or 2'-O-methyl guanosine

<220>
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<222> (15)..(15)
<223> n at position 15 is 2'-OH guanosine or 2'-O-methyl guanosine

<220>
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<222> (16)..(16)
<223> n at position 16 is 2'-fluoro cytosine or deoxy cytidine

<220>
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<222> (18)..(18)
<223> n at position 18 is 2'-fluoro cytosine or 2'-O-methyl cytosine

<220>
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<222> (19)..(19)
<223> n at position 19 is 2'-fluoro uridine or 2'-O-methyl uridine

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<223> n at position 20 is 2'-OH guanosine or 2'-O-methyl guanosine

<220>
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<222> (21)..(21)
<223> n at position 21 is 2'-OH adenosine or 2'-O-methyl adenosine

<220>
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<222> (22)..(22)
<223> n at position 22 is 2'-OH guanosine or 2'-O-methyl guanosine

<220>
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<222> (23)..(23)
<223> n at position 23 is 2'-fluoro uridine or deoxy thymidine

<220>
<221> misc_feature
<222> (24)..(24)
<223> n at position 24 is 2'-fluoro cytosine or deoxy cytidine

<220>
<221> misc_feature
<222> (25)..(25)
<223> n at position 25 is 2'-fluoro uridine or deoxy thymidine

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<222> (26)..(26)
<223> n at position 26 is 2'-OH guanosine or 2'-O-methyl guanosine

<220>
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<222> (27)..(27)
<223> n at position 27 is 2'-OH adenosine or 2'-O-methyl adenosine

<220>
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<222> (28)..(28)
<223> n at position 28 is 2'-OH guanosine or 2'-O-methyl guanosine

<220>
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<222> (29)..(29)
<223> n at position 29 is 2'-fluoro uridine or deoxy thymidine

<220>
<221> misc_feature
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<223> n at position 32 is 2'-OH adenosine or 2'-O-methyl adenosine

<220>
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<222> (33)..(33)
<223> n at position 33 is 2'-fluoro cytosine or deoxy cytidine

<220>
<221> misc_feature
<222> (34)..(34)
<223> n at position 34 is 2'-fluoro cytosine or deoxy cytidine

<220>
<221> misc_feature

<222> (35)..(35)
<223> n at position 35 is 2'-fluoro uridine or deoxy thymidine

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<221> misc_feature
<222> (36)..(36)
<223> n at position 36 is 2'-OH guanosine or 2'-O-methyl guanosine

<220>
<221> misc_feature
<222> (38)..(38)
<223> n at position 38 is 2'-OH guanosine or 2'-O-methyl guanosine

<400> 1
nnccgcnnun nnnnnngnnn nnnnnnnnnu unnnnncn 38

<210> 2
<211> 38
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro; except at positions 10, 12, 16 and 24, wherein cytidine is deoxy, and at positions 11, 23 and 25, which are deoxy thymidine

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH, and position 32, wherein adenosine is 2'-OH

<400> 2
cgccgcgguc tcaggcgcug agtctgaguu uaccugcg 38

<210> 3
<211> 42
<212> RNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
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<210> 4
<211> 39
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH, and at position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (39)..(39)
<223> thymidine at position 39 is a 3' inverted deoxy thymidine (3'-3' linked)

<400> 4
cgccgcgguc ucaggcgcug agucugaguu uaccugcgt 39

<210> 5
<211> 39
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(1)
<223> cytosine at position 1 is modified by a 40 kDa branched (1,3-bis(mPEG-[20 kDa])-propyl-2-(4'-butamide)) PEG attached to the nucleotide via an amine linker

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH, and at position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (39)..(39)
<223> thymidine at position 39 is a 3' inverted deoxy thymidine (3'-3' linked)

<400> 5
cgccgcgguc ucaggcgcug agucugaguu uaccugcgt 39

<210> 6
<211> 44
<212> RNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(44)
<223> all pyrimidines are 2'-fluoro

<400> 6
aggacgaugc ggucucaugc gucgagugug aguuuaccuu cguc 44

<210> 7
<211> 40
<212> RNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(40)
<223> all pyrimidines are 2'-fluoro

<220>
<221> misc_feature
<222> (1)..(40)
<223> all purines are 2'-O-methyl; except at positions 2, 7 and 19, wherein guanosine is 2'-OH, and positions 1 and 34, wherein adenosine is 2'-OH

<400> 7

agcgccgcgg ucucaggcgc ugagucugag uuuaccugcg 40

<210> 8
<211> 40
<212> RNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(40)
<223> all pyrimidines are 2'-fluoro

<400> 8
ggcgccgcgg ucucaggcgc ugagucugag uuuaccugcg 40

<210> 9
<211> 39
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH, and position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro; except at positions 10, 12, 16, 24, 33 and 34, wherein cytidine is deoxy, and at positions 11, 23, and 25, which are deoxy thymidine

<220>
<221> misc_feature
<222> (39)..(39)
<223> thymidine at position 39 is a 3' inverted deoxy thymidine (3'-3' linked)

<400> 9
cgccgcgguc tcaggcgcug agtctgaguu uaccugcgt 39

<210> 10
<211> 39
<212> DNA

<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
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<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro, except at positions 10, 12, 16, 24, 33 and 34, wherein cytidine is deoxy; at positions 1, 3, and 37, wherein cytosine is 2'-O-methyl; and at postions 11, 23, and 25, which are deoxy thymidine

<220>
<221> misc_feature
<222> (39)..(39)
<223> thymidine at position 39 is a 3' inverted deoxy thymidine (3'-3' linked)

<400> 10
cgccgcgguc tcaggcgcug agtctgaguu uaccugcgt 39

<210> 11
<211> 38
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
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<223> all purines are 2'-O-methyl, except at positions 5 and 17, wherein guanosine is 2'-OH, and position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro; except at positions 1, 3, 10, 12, 16, 24 and 37, wherein cytidine is deoxy; and at positions 11, 23 and 25, which are deoxy thymidine

<400> 11
cgccgcgguc tcaggcgcug agtctgaguu uaccugcg 38

<210> 12
<211> 38
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

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<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrmidines are 2'-fluoro; except at positions 1, 10, 12, 16 and 24, wherein cytidine is deoxy, and at positions 11, 23 and 25, which are deoxy thymidine

<400> 12
cgccgcgguc tcaggcgcug agtctgaguu uaccugcg 38

<210> 13
<211> 38
<212> DNA
<213> artificial sequence

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<223> synthetic aptamer

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<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro; except at positions 3, 10, 12, 16 and 24, wherein cytidine is deoxy; and positions 11, 23, and 25, which are deoxy thymidine

<400> 13
cgccgcgguc tcaggcgcug agtctgaguu uaccugcg 38

<210> 14
<211> 38

<212> DNA
<213> artificial sequence

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<223> synthetic aptamer

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<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro; except at positions 10, 12, 16, 24 and 37, wherein cytidine is deoxy; and at positions 11, 23, and 25, which are deoxy thymidine

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cgccgcgguc tcaggcgcug agtctgaguu uaccugcg 38

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<220>
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<223> all pyrimidines are 2'-fluoro; except at positions 10, 12, 16, and 24, wherein cytidine is deoxy; at position 3, wherein cytosine is 2'-O-methyl; and at positions 11, 23, and 25, which are deoxy thymidine

<400> 15
cgccgcgguc tcaggcgcug agtctgaguu uaccugcg 38

<210> 16
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<400> 16
cgccgcgguc tcaggcgcug agtctgaguu uaccugcg 38

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<220>
<221> misc_feature
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<400> 17
cgccgcgguc tcaggcgcug agtctgaguu uaccugcg 38

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<211> 38
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<220>
<221> misc_feature
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<223> all pyrimidines are 2'-fluoro; except at positions 10, 12, 16 and 24, wherein cytidine is deoxy; at positions 1, 3 and 37, wherein cytosine is 2'-O-methyl; and at positions 11, 23 and 25, which are deoxy thymidine

<400> 18
cgccgcgguc tcaggcgcug agtctgaguu uaccugcg 38

<210> 19
<211> 38
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<220>
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<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro; except at positions 4, 10, 12, 16 and 24, wherein cytidine is deoxy; and at positions 11, 23, and 25, which are deoxy thymidine

<400> 19
cgccgcgguc tcaggcgcug agtctgaguu uaccugcg 38

<210> 20
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<220>
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<220>
<221> misc_feature
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<223> all pyrimidines are 2'-fluoro; except at positions 6, 10, 12, 16 and 24, wherein cytidine is deoxy; and at positions 11, 23 and 25, which are deoxy thymidine

<400> 20
cgccgcgguc tcaggcgcug agtctgaguu uaccugcg 38

<210> 21
<211> 38
<212> DNA
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<220>
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<220>
<221> misc_feature
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<223> all pyrimidines are 2'-fluoro; except at positions 4, 6, 10, 12, 16 and 24, wherein cytidine is deoxy; and at positions 11, 23 and 25, which are deoxy thymidine

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cgccgcgguc tcaggcgcug agtctgaguu uaccugcg 38

<210> 22
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<220>
<221> misc_feature
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<210> 23
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<220>
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<220>
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<220>
<221> misc_feature
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<223> all all pyrimidines are 2'-fluoro; except at positions 10, 12, 16 and 24, wherein cytidine is deoxy; and at positions 11, 19, 23 and 25, which are deoxy thymidine

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<210> 24
<211> 38
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
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wherein guanosine is 2'-OH, and position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
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<223> all pyrimidines are 2'-fluoro; except at positions 10, 12, 16, 18 and 24, wherein cytidine is deoxy; and at positions 11, 19, 23 and 25, which are deoxy thymidine

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<210> 25
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<220>
<223> synthetic aptamer

<220>
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<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro; except at positions 10, 12, 16 and 24, wherein cytidine is deoxy; and at positions 11, 23, 25 and 29, which are deoxy thymidine

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cgccgcgguc tcaggcgcug agtctgagtu uaccugcg 38

<210> 26
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<220>
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<220>
<221> misc_feature
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<400> 26
cgccgcgguc tcaggcgcug agtctgagut uaccugcg 38

<210> 27
<211> 38
<212> DNA
<213> artificial sqeuence

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<223> synthetic aptamer

<220>
<221> misc_feature
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<220>
<221> misc_feature
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<223> all pyrimidines are 2'-fluoro; except at positions 10, 12, 16 and 24, wherein cytidine is deoxy; and at positions 11, 23, 25 and 31, which are deoxy thymidine

<400> 27
cgccgcgguc tcaggcgcug agtctgaguu taccugcg 38

<210> 28
<211> 38
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<220>
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<220>
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<220>
<221> misc_feature
<222> (1)..(38)

<223> all pyrimidines are 2'-fluoro; except at positions 10, 12, 16 and 24, wherein cytidine is deoxy; and at positions 11, 23, 25, 29, 30 and 31, which are deoxy thymidine

<400> 28
cgccgcgguc tcaggcgcug agtctgagtt taccugcg 38

<210> 29
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<220>
<223> synthetic aptamer

<220>
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<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-flouro; except at positions 10, 12, 16 and 24, wherein cytidine is deoxy; and at positions 11, 23, 25 and 35, which are deoxy thymidine

<400> 29
cgccgcgguc tcaggcgcug agtctgaguu uacctgcg 38

<210> 30
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<220>
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<220>
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<220>
<221> misc_feature
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<223> all pyrimidines are 2'-fluoro; except at positions 10, 12, 16, 24, 33 and 34, wherein cytidine is deoxy; at position 9, wherein uridine is 2'-O-methyl; and at positions 11, 23 and 25, which are

deoxy thymidine

<400> 30
cgccgcgguc tcaggcgcug agtctgaguu uaccugcg 38

<210> 31
<211> 38
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
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<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH, and position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
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<223> all pyrimidines are 2'-fluoro; except at positions 10, 12, 16 and 24, wherein cytidine is deoxy; at position 4, wherein cytosine is 2'-O-methyl; and at positions 11, 23, and 25, which are deoxy thymidine

<400> 31
cgccgcgguc tcaggcgcug agtctgaguu uaccugcg 38

<210> 32
<211> 38
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
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<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH, and position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro; except at positions 10, 12, 16 and 24, wherein cytidine is deoxy; at position 6, wherein cytosine is 2'-O-methyl; and at positions 11, 23, and 25, which are deoxy thymidine

<400> 32
cgccgcgguc tcaggcgcug agtctgaguu uaccugcg 38

<210> 33
<211> 38
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
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<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro; except at positions 10, 12, 16 and 24, wherein cytidine is deoxy; at position 4 and 6, wherein cytosine is 2'-O-methyl; and at positions 11, 23, and 25, which are deoxy thymidine

<400> 33
cgccgcgguc tcaggcgcug agtctgaguu uaccugcg 38

<210> 34
<211> 38
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH, and position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro; except at positions 10, 12, 16 and 24, wherein cytidine is deoxy; and at position 18, wherein cytosine is 2'-O-methyl

<400> 34

cgccgcgguc ucaggcgcug agucugaguu uaccugcg 38

<210> 35
<211> 38
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH, and position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro; except at positions 10, 12, 16 and 24, wherein cytidine is deoxy; and at position 19, wherein uridine is 2'-O-methyl

<400> 35
cgccgcgguc ucaggcgcug agucugaguu uaccugcg 38

<210> 36
<211> 38
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH, and position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro; except at positions 10, 12, 16 and 24, wherein cytidine is deoxy; at position 18, wherein cytosine is 2'-O-methyl; and at position 19, wherein uridine is 2'-O-methyl

<400> 36
cgccgcgguc ucaggcgcug agucugaguu uaccugcg 38

<210> 37
<211> 38
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH, and position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro; except at positions 10, 12, 16 and 24, wherein cytidine is deoxy; at position 29, wherein uridine is 2'-O-methyl; and at positions 11, 23 and 25, which are deoxy thymidine

<400> 37
cgccgcgguc tcaggcgcug agtctgaguu uaccugcg 38

<210> 38
<211> 38
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH, and position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro; except at positions 10, 12, 16 and 24, wherein cytidine is deoxy; at position 30, wherein uridine is 2'-O-methyl; and at positions 11, 23 and 25, which are deoxy thymidine

<400> 38
cgccgcgguc tcaggcgcug agtctgaguu uaccugcg 38

<210> 39
<211> 38
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH, and position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro; except at positions 10, 12, 16 and 24, wherein cytidine is deoxy; at position 31, wherein uridine is 2'-O-methyl; and at positions 11, 23 and 25, which are deoxy thymidine

<400> 39
cgccgcgguc tcaggcgcug agtctgaguu uaccugcg 38

<210> 40
<211> 38
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH, and position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro; except at positions 10, 12, 16 and 24, wherein cytidine is deoxy; at positions 29, 30 and 31, wherein uridine is 2'-O-methyl; and at positions 11, 23 and 25, which are deoxy thymidine

<400> 40
cgccgcgguc tcaggcgcug agtctgaguu uaccugcg 38

<210> 41

<211> 38
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH, and position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro; except at positions 10, 12, 16 and 24, wherein cytidine is deoxy; at position 35, wherein uridine is 2'-O-methyl; and at positions 11, 23 and 25, which are deoxy thymidine

<400> 41
cgccgcgguc tcaggcgcug agtctgaguu uaccugcg 38

<210> 42
<211> 38
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at position 5, wherein guanosine is deoxy; at position 17, wherein guanosine is 2'-OH; and position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro; except at positions 10, 12, 16 and 24, wherein cytidine is deoxy; and at positions 11, 23 and 25, which are deoxy thymidine

<400> 42
cgccgcgguc tcaggcgcug agtctgaguu uaccugcg 38

<210> 43
<211> 38
<212> DNA

<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at position 5, wherein guanosine is 2'-OH; at position 17, wherein guanosine is deoxy; and position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro; except at positions 10, 12, 16 and 24, wherein cytidine is deoxy; and at positions 11, 23 and 25, which are deoxy thymidine

<400> 43
cgccgcgguc tcaggcgcug agtctgaguu uaccugcg 38

<210> 44
<211> 38
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH; and position 32, wherein adenosine is deoxy

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro; except at positions 10, 12, 16 and 24, wherein cytidine is deoxy; and at positions 11, 23 and 25, which are deoxy thymidine

<400> 44
cgccgcgguc tcaggcgcug agtctgaguu uaccugcg 38

<210> 45
<211> 40
<212> DNA
<213> artificial sequence

<220>

<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(40)
<223> all purines are 2'-O-methyl; except at positions 6 and 18, wherein guanosine is 2'-OH; and position 33, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (1)..(40)
<223> all pyrimidines are 2'-fluoro; except at positions 11, 13, 17 and 25, wherein cytidine is deoxy; at position 40, wherein cytosine is 2'-O-methyl; and at positions 12, 24 and 26, which are deoxy thymidine

<400> 45
gcgucgcggu ctcaggcgcu gagtctgagu uuaccuacgc 40

<210> 46
<211> 38
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH; and position 32, wherein adenosine is deoxy

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro; except at positions 10, 12, 16 and 24, wherein cytidine is deoxy; at positions 36, 37 and 38 wherein cytosine is 2'-O-methyl; and at positions 11, 23 and 25, which are deoxy thymidine

<400> 46
gggcgcgguc tcaggcgcug agtctgaguu uaccuccc 38

<210> 47
<211> 40
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(40)
<223> all purines are 2'-O-methyl; except at positions 6 and 18, wherein guanosine is 2'-OH; and position 33, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (1)..(40)
<223> all pyrimidines are 2'-fluoro; except at positions 11, 13, 17 and 25, wherein cytidine is deoxy; at position 40, wherein cytosine is 2'-O-methyl; and at positions 12, 24 and 26, which are deoxy thymidine

<400> 47
gcgccgcggu ctcaggcgcu gagtctgagu uuaccugcgc 40

<210> 48
<211> 45
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(44)
<223> all purines are 2'-O-methyl; except at positions 8 and 20, wherein guanosine is 2'-OH; and position 35 wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (1)..(44)
<223> all pyrimidines are 2'-fluoro

<220>
<221> misc_feature
<222> (45)..(45)
<223> thymidine at position 45 is a 3' inverted deoxy thymidine (3'-3' linked)

<400> 48
ggacgccgcg gucucaggcg cugagucuga guuuaccugc gucut 45

<210> 49
<211> 42
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(42)
<223> all purines are 2'-O-methyl; except at positions 7 and 19, wherein guanosine is 2'-OH; and at position 34, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (1)..(42)
<223> all cytosines are 2'-fluoro; except at positions 12, 14, 18, 26, 35 and 36, which are deoxy cytidine; and at positions 20, 41 and 42, wherein cytosine is 2'-O-methyl

<220>
<221> misc_feature
<222> (1)..(42)
<223> all uridines are 2'-fluoro; except at position 21, wherein uridine is 2'-O-methyl; and at positions 13, 25, 27, 31 and 37, which are deoxy thymidine

<400> 49
ggcgccgcgg uctcaggcgc ugagtctgag tuuacctgcg cc 42

<210> 50
<211> 42
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(42)
<223> all purines are 2'-O-methyl; except at positions 7 and 19, wherein guanosine is 2'-OH; and at position 34, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (1)..(42)
<223> all cytosines are 2'-fluoro; except at positions 12, 14, 18, 26, 35, 36 and 39, which are deoxy cytidine; and at positions 3, 20, 41 and 42, wherein cytosine is 2'-O-methyl

<220>
<221> misc_feature
<222> (1)..(42)
<223> uridine at position 11 is 2'-fluoro; uridine at position 21 is 2'-O-methyl; positions 13, 25, 27, 31, 32, 33 and 37 are deoxy

thymidine

<400> 50
ggcgccgcgg uctcaggcgc ugagtctgag tttacctgcg cc 42

<210> 51
<211> 42
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(42)
<223> all purines are 2'-O-methyl; except at positions 7 and 19, wherein guanosine is 2'-OH

<220>
<221> misc_feature
<222> (1)..(42)
<223> cytosine at positions 5, 6, 8, 12, 14, 18, 26, 35, 36 and 39 are deoxy cytidine; and cystosine at positions 3, 20, 41 and 42 are 2'-O-methyl

<220>
<221> misc_feature
<222> (1)..(42)
<223> uridine at position 21 is 2'-O-methyl; positions 11, 13, 25, 27, 31, 32, 33 and 37 are deoxy thymidine

<400> 51
ggcgccgcgg tctcaggcgc ugagtctgag tttacctgcg cc 42

<210> 52
<211> 42
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(42)
<223> all purines are 2'-O-methyl; except at positions 7 and 19, wherein guanosine is 2'-OH

<220>
<221> misc_feature
<222> (1)..(42)
<223> uridine at positions 13, 21, 25 and 27 are 2'-O-methyl;

positions 11, 31, 32, 33 and 37 are deoxy thymidine

<220>
<221> misc_feature
<222> (1)..(42)
<223> cytosine at positions 5, 6, 8, 12, 18, 35, 36 and 39 are deoxy cytidine; and cytosine at positions 3, 14, 20, 26, 41 and 42 are 2'-O-methyl

<400> 52
ggcgccgcgg tcucaggcgc ugagucugag tttacctgcg cc 42

<210> 53
<211> 40
<212> RNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(1)
<223> adenosine at position 1 has a biotin conjugated to the 5' end

<220>
<221> misc_feature
<222> (1)..(40)
<223> all purines are 2'-O-methyl; except at positions 3, 8 and 20, wherein guanosine is 2'-OH; and at position 2, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (1)..(40)
<223> all pyrimidines are 2'-fluoro

<400> 53
agcgccgcgg ucucaggcgc ugagucugag uuuaccugcg 40

<210> 54
<211> 42
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(42)
<223> all purines are 2'-O-methyl; except at positions 7 and 19, wherein guanosine is 2'-OH; and at position 34, wherein adenosine

is 2'-OH

<220>
<221> misc_feature
<222> (1)..(42)
<223> all cytosines are 2'-fluoro; except at positions 12, 14, 18 and 26, which are deoxy cytidine; and at positions 41 and 42, wherein cytosine is 2'-O-methyl

<220>
<221> misc_feature
<222> (1)..(42)
<223> all uridines are 2'-fluoro; positions 13, 25, and 27 are deoxy thymidine

<400> 54
ggcgccgcgg uctcaggcgc ugagtctgag uuuaccugcg cc 42

<210> 55
<211> 42
<212> RNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(42)
<223> all purines are 2'-O-methyl; except at positions 7 and 19, wherein guanosine is 2'-OH; and at position 34, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (1)..(42)
<223> all cytosines are 2'-fluoro; except at positions 12, 14, 18, 26, 41 and 42, wherein cytosine is 2'-O-methyl

<220>
<221> misc_feature
<222> (1)..(42)
<223> all uridines are 2'-fluoro; except at positions 13, 25, and 27, wherein uridine is 2'-O-methyl

<400> 55
ggcgccgcgg ucucaggcgc ugagucugag uuuaccugcg cc 42

<210> 56
<211> 39
<212> DNA
<213> artificial sequence

<220>

<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH

<220>
<221> misc_feature
<222> (39)..(39)
<223> thymidine at position 39 is a 3' inverted deoxy thymidine (3'-3' linked)

<400> 56
cgccgcgguc ucaggcgcug agucugaguu uaccugcgt 39

<210> 57
<211> 39
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro; except at position 18, wherein cytosine is 2'-O-methyl; and at position 19 wherein uridine is 2'-O-methyl

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH; and at position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (39)..(39)
<223> thymidine at position 39 is a 3' inverted deoxy thymidine (3'-3' linked)

<400> 57
cgccgcgguc ucaggcgcug agucugaguu uaccugcgt 39

<210> 58
<211> 39
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro; except at position 29, which is deoxy thymidine

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH; and at position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (39)..(39)
<223> thymidine at position 39 is a 3' inverted deoxy thymidine (3'-3' linked)

<400> 58
cgccgcgguc ucaggcgcug agucugagtu uaccugcgt 39

<210> 59
<211> 39
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro; except at position 18, wherein cytosine is 2'-O-methyl; and position 19, wherein uridine is 2'-O-methyl

<220>
<221> misc_feature
<222> (39)..(39)

<223> thymidine at position 39 is a 3' inverted deoxy thymidine (3'-3' linked)

<400> 59
cgccgcgguc ucaggcgcug agucugaguu uaccugcgt 39

<210> 60
<211> 39
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro; except at position 18, wherein cytosine is 2'-O-methyl; at position 19, wherein uridine is 2'-O-methyl; and at position 29, which is deoxy thymidine

<220>
<221> misc_feature
<222> (39)..(39)
<223> thymidine at position 39 is a 3' inverted deoxy thymidine (3'-3' linked)

<400> 60
cgccgcgguc ucaggcgcug agucugagtu uaccugcgt 39

<210> 61
<211> 39
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(1)
<223> cytosine at position 1 is modified by a 20 kDa PEG attached to the nucleotide via an amine linker

<220>
<221> misc_feature
<222> (1)..(38)

<223> all pyrimidines are 2'-fluoro

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH, and at position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (39)..(39)
<223> thymidine at position 39 is a 3' inverted deoxy thymidine (3'-3' linked)

<400> 61
cgccgcgguc ucaggcgcug agucugaguu uaccugcgt 39

<210> 62
<211> 39
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(1)
<223> cytosine at position 1 is modified by a 30 kDa PEG attached to the nucleotide via an amine linker

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH, and at position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (39)..(39)
<223> thymidine at position 39 is a 3' inverted deoxy thymidine (3'-3' linked)

<400> 62
cgccgcgguc ucaggcgcug agucugaguu uaccugcgt 39

<210> 63

<211> 39
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(1)
<223> cytosine at position 1 is modified by a 5' amine linker

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH, and at position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (39)..(39)
<223> thymidine at position 39 is a 3' inverted deoxy thymidine (3'-3' linked)

<400> 63
cgccgcgguc ucaggcgcug agucugaguu uaccugcgt 39

<210> 64
<211> 39
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(1)
<223> cytosine at position 1 is modified by a 10 kDa PEG attached to the nucleotide via an amine linker

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro

<220>
<221> misc_feature

<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH, and at position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (39)..(39)
<223> thymidine at position 39 is a 3' inverted deoxy thymidine (3'-3' linked)

<400> 64
cgccgcgguc ucaggcgcug agucugaguu uaccugcgt 39

<210> 65
<211> 39
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(1)
<223> cytosine at position 1 is modified by a linear 40 kDa PEG attached to the nucleotide via an amine linker

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH, and at position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (39)..(39)
<223> thymidine at position 39 is a 3' inverted deoxy thymidine (3'-3' linked)

<400> 65
cgccgcgguc ucaggcgcug agucugaguu uaccugcgt 39

<210> 66
<211> 38
<212> RNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(1)
<223> cytosine at position 1 is modified by a 20 kDa PEG attached to the nucleotide via an amine linker

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17, wherein guanosine is 2'-OH, and at position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (38)..(38)
<223> guanosine at position 38 is modified by a 20 kDa PEG attached to the nucleotide via an amine linker

<400> 66
cgccgcgguc ucaggcgcug agucugaguu uaccugcg 38

<210> 67
<211> 39
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(1)
<223> cytosine at position 1 is modified by a 40 kDa branched (2,3-bis(mPEG-[20 kDa])-propyl-1-carbamoyl) PEG attached to the nucleotide via an amine linker

<220>
<221> misc_feature
<222> (1)..(38)
<223> all pyrimidines are 2'-fluoro

<220>
<221> misc_feature
<222> (1)..(38)
<223> all purines are 2'-O-methyl; except at positions 5 and 17,

wherein guanosine is 2'-OH, and at position 32, wherein adenosine is 2'-OH

<220>
<221> misc_feature
<222> (39)..(39)
<223> thymidine at position 39 is a 3' inverted deoxy thymidine (3'-3' linked)

<400> 67
cgccgcgguc ucaggcgcug agucugaguu uaccugcgt 39

<210> 68
<211> 46
<212> RNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(46)
<223> all pyrimidines are 2'-fluoro

<400> 68
ggcgauuacu gggacggacu cgcgauguga gcccagacga cucgcc 46

<210> 69
<211> 40
<212> RNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(40)
<223> all pyrimidines are 2'-fluoro

<400> 69
ggcuucugaa gauuauuucg cgaugugaac uccagacccc 40

<210> 70
<211> 92
<212> DNA
<213> artificial sequence

<220>
<223> synthetic template

<220>
<221> misc_feature
<222> (40)..(69)
<223> n may be any nucleotide (a, c, g, or t)

<400> 70
taatacgact cactataggg agaggagaga acgttctacn nnnnnnnnnn nnnnnnnnnn 60

nnnnnnnnng gtcgatcgat cgatcatcga tg 92

<210> 71
<211> 39
<212> DNA
<213> artificial sequence

<220>
<223> synthetic primer

<400> 71
taatacgact cactataggg agaggagaga acgttctac 39

<210> 72
<211> 23
<212> DNA
<213> artificial sequence

<220>
<223> synthetic primer

<400> 72
catcgatgat cgatcgatcg acc 23

<210> 73
<211> 22
<212> RNA
<213> artificial sequence

<220>
<223> synthetic fixed region

<400> 73
gggagaggag agaacguucu ac 22

<210> 74
<211> 23
<212> RNA
<213> artificial sequence

<220>
<223> synthetic fixed region

<400> 74

ggucgaucga ucgaucaucg aug 23

<210> 75
<211> 75
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(75)
<223> wherein all purines are deoxy, and all pyrimidines are 2'-O-methyl

<400> 75
gggagaggag agaacguucu accuugguuu ggcacaggca uacauacgca ggggucgauc 60

gaucgaucau cgaug 75

<210> 76
<211> 32
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(32)
<223> wherein all purines are deoxy, and all pyrimidines are 2'-O-methyl

<400> 76
ccuugguuug gcacaggcau acauacgcag gg 32

<210> 77
<211> 32
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(32)
<223> wherein all purines are deoxy, and all pyrimidines are 2'-O-methyl

<400> 77
ccuugguuug gcacaggcau acaaacgcag gg 32

<210> 78
<211> 25
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(25)
<223> wherein all purines are deoxy, and all pyrimidines are 2'-O-methyl

<400> 78
ggguuuggca caggcauaca uaccc 25

<210> 79
<211> 25
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(25)
<223> wherein all purines are deoxy, and all pyrimidines are 2'-O-methyl

<400> 79
ggguuuggca caggcauaca aaccc 25

<210> 80
<211> 32
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(32)
<223> wherein all purines are deoxy, and all pyrimidines are 2'-O-methyl

<400> 80
ggcggcacag gcauacauac gcaggggucg cc 32

<210> 81
<211> 47
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(47)
<223> wherein all purines are deoxy, and all pyrimidines are 2'-O-methyl

<400> 81
cguucuaccu ugguuuggca caggcauaca uacgcagggg ucgaucg 47

<210> 82
<211> 88
<212> DNA
<213> artificial sequence

<220>
<223> synthetic template

<220>
<221> misc_feature
<222> (40)..(69)
<223> n may be any nucleotide (a, t, c, or g)

<400> 82
taatacgact cactataggg agaggagaga acgttctacn nnnnnnnnnn nnnnnnnnnn 60

nnnnnnnnng ttacgactag catcgatg 88

<210> 83
<211> 39
<212> DNA
<213> artificial sequence

<220>
<223> synthetic template

<400> 83
cttggtttgg cacaggcata catacgcagg ggtcgatcg 39

<210> 84

<211> 39
<212> DNA
<213> artificial sequence

<220>
<223> synthetic primer

<400> 84
taatacgact cactataggg agaggagaga acgttctac 39

<210> 85
<211> 19
<212> DNA
<213> artificial sequence

<220>
<223> synthetic primer

<400> 85
catcgatgct agtcgtaac 19

<210> 86
<211> 22
<212> RNA
<213> artificial sequence

<220>
<223> synthetic fixed region

<400> 86
gggagaggag agaacguucu ac 22

<210> 87
<211> 19
<212> RNA
<213> artificial sequence

<220>
<223> synthetic fixed region

<400> 87
guuacgacua gcaucgaug 19

<210> 88
<211> 80
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>

<221> misc_feature
<222> (1)..(80)
<223> wherein all purines are deoxy, and all pyrimidines are 2'-O-methyl

<400> 88
gggagaggag agaacguucu accuugguuu ggcacaggca uacauacgca ggggucgauc 60

gguuacgacu agcaucgaug 80

<210> 89
<211> 80
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(80)
<223> wherein all purines are deoxy, and all pyrimidines are 2'-O-methyl

<400> 89
gggagaggag agaacguucu accuugguuu ggcacaggca uacauacgca ggugucgauc 60

uguuacgacu agcaucgaug 80

<210> 90
<211> 80
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(80)
<223> wherein all purines are deoxy, and all pyrimidines are 2'-O-methyl

<400> 90
gggagaggag agaacguucu accuugguuu ggcacaggca uaaauacgca gggcucgauc 60

gguuacgacu agcaucgaug 80

<210> 91
<211> 80
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(80)
<223> wherein all purines are deoxy, and all pyrimidines are 2'-O-methyl

<400> 91
gggagaggag agaacguucu accuugguuu ggcccaggca uauauacgca gggauugauc 60

cguuacgacu agcaucgaug 80

<210> 92
<211> 78
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(78)
<223> wherein all purines are deoxy, and all pyrimidines are 2'-O-methyl

<400> 92
gggagaggag agaacguucu accuugguuu ggcgcaggca uacauacgca ggucgaucgg 60

uuacgacuag caucgaug 78

<210> 93
<211> 80
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(80)
<223> wherein all purines are deoxy, and all pyrimidines are 2'-O-methyl

<400> 93
gggagaggag agaacguucu accuuguugu ggcacagcca acccuacgca cggaucgccc 60

gguuacgacu agcaucgaug 80

<210> 94
<211> 69
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(69)
<223> wherein all purines are deoxy, and all pyrimidines are 2'-O-methyl

<400> 94
gggagaggag agaacguucu accuugguuu ggcacaggca uacauacgca ggucgaucgg 60

uuacgacua 69

<210> 95
<211> 79
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(79)
<223> wherein all purines are deoxy, and all pyrimidines are 2'-O-methyl

<400> 95
gggagaggag agaacguucu accuuagguu cgcacuguca uacauacaca cgggcaaucg 60

guuacgacua gcaucgaug 79

<210> 96
<211> 75
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(75)
<223> wherein all purines are deoxy, and all pyrimidines are

2'-O-methyl

<220>
<221> misc_feature
<222> (34)..(34)
<223> n may be any nucleotide (a, t, u, c, or g)

<220>
<221> misc_feature
<222> (43)..(43)
<223> n may be any nucleotide (a, t, u, c, or g)

<400> 96
gggagaggag agaacguucu accuugguuu ggcncaggca uanauacgca cgggucgauc 60

gguuacgacu agcau 75

<210> 97
<211> 80
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(80)
<223> wherein all purines are deoxy, and all pyrimidines are 2'-O-methyl

<400> 97
gggagaggag agaacguucu accuuucucu gccacaagca uaccuucgcg ggguucuauu 60

gguuacgacu agcaucgaug 80

<210> 98
<211> 79
<212> DNA
<213> artificial sequence

<220>
<223> synthetic aptamer

<220>
<221> misc_feature
<222> (1)..(79)
<223> wherein all purines are deoxy, and all pyrimidines are 2'-O-methyl

<400> 98
gggagaggag agaacguucu accuugguuu ggcacaggca uauauacgca gggucgaucc 60

guuacgacua gcaucgaug 79

<210> 99
<211> 93
<212> DNA
<213> artificial sequence

<220>
<223> synthetic template

<220>
<221> misc_feature
<222> (25)..(54)
<223> n may be any nucleotide (a, t, c, or g)

<400> 99
catcgatgct agtcgtaacg atccnnnnnn nnnnnnnnnn nnnnnnnnnn nnnncgagaa 60

cgttctctcc tctccctata gtgagtcgta tta 93

<210> 100
<211> 92
<212> DNA
<213> artificial

<220>
<223> synthetic template

<220>
<221> misc_feature
<222> (24)..(53)
<223> n may be any nucleotide (a, t, c, or g)

<400> 100
catgcatcgc gactgactag ccgnnnnnnn nnnnnnnnnn nnnnnnnnnn nnngtagaac 60

gttctctcct ctccctatag tgagtcgtat ta 92

<210> 101
<211> 92
<212> DNA
<213> artificial

<220>
<223> synthetic template

<220>
<221> misc_feature
<222> (24)..(53)
<223> n may be any nucleotide (a, t, c, or g)

<400> 101
catcgatcga tcgatcgaca gcgnnnnnnn nnnnnnnnnn nnnnnnnnnn nnngtagaac 60

gttctctcct ctccctatag tgagtcgtat ta 92

<210> 102
<211> 1676
<212> PRT
<213> artificial

<220>
<223> synthetic C5

<400> 102

Met Gly Leu Leu Gly Ile Leu Cys Phe Leu Ile Phe Leu Gly Lys Thr
1 5 10 15

Trp Gly Gln Glu Gln Thr Tyr Val Ile Ser Ala Pro Lys Ile Phe Arg
20 25 30

Val Gly Ala Ser Glu Asn Ile Val Ile Gln Val Tyr Gly Tyr Thr Glu
35 40 45

Ala Phe Asp Ala Thr Ile Ser Ile Lys Ser Tyr Pro Asp Lys Lys Phe
50 55 60

Ser Tyr Ser Ser Gly His Val His Leu Ser Ser Glu Asn Lys Phe Gln
65 70 75 80

Asn Ser Ala Ile Leu Thr Ile Gln Pro Lys Gln Leu Pro Gly Gly Gln
85 90 95

Asn Pro Val Ser Tyr Val Tyr Leu Glu Val Val Ser Lys His Phe Ser
100 105 110

Lys Ser Lys Arg Met Pro Ile Thr Tyr Asp Asn Gly Phe Leu Phe Ile
115 120 125

His Thr Asp Lys Pro Val Tyr Thr Pro Asp Gln Ser Val Lys Val Arg
130 135 140

Val Tyr Ser Leu Asn Asp Asp Leu Lys Pro Ala Lys Arg Glu Thr Val
145 150 155 160

Leu Thr Phe Ile Asp Pro Glu Gly Ser Glu Val Asp Met Val Glu Glu

165 170 175

Ile Asp His Ile Gly Ile Ile Ser Phe Pro Asp Phe Lys Ile Pro Ser
180 185 190

Asn Pro Arg Tyr Gly Met Trp Thr Ile Lys Ala Lys Tyr Lys Glu Asp
195 200 205

Phe Ser Thr Thr Gly Thr Ala Tyr Phe Glu Val Lys Glu Tyr Val Leu
210 215 220

Pro His Phe Ser Val Ser Ile Glu Pro Glu Tyr Asn Phe Ile Gly Tyr
225 230 235 240

Lys Asn Phe Lys Asn Phe Glu Ile Thr Ile Lys Ala Arg Tyr Phe Tyr
245 250 255

Asn Lys Val Val Thr Glu Ala Asp Val Tyr Ile Thr Phe Gly Ile Arg
260 265 270

Glu Asp Leu Lys Asp Asp Gln Lys Glu Met Met Gln Thr Ala Met Gln
275 280 285

Asn Thr Met Leu Ile Asn Gly Ile Ala Gln Val Thr Phe Asp Ser Glu
290 295 300

Thr Ala Val Lys Glu Leu Ser Tyr Tyr Ser Leu Glu Asp Leu Asn Asn
305 310 315 320

Lys Tyr Leu Tyr Ile Ala Val Thr Val Ile Glu Ser Thr Gly Gly Phe
325 330 335

Ser Glu Glu Ala Glu Ile Pro Gly Ile Lys Tyr Val Leu Ser Pro Tyr
340 345 350

Lys Leu Asn Leu Val Ala Thr Pro Leu Phe Leu Lys Pro Gly Ile Pro
355 360 365

Tyr Pro Ile Lys Val Gln Val Lys Asp Ser Leu Asp Gln Leu Val Gly
370 375 380

Gly Val Pro Val Thr Leu Asn Ala Gln Thr Ile Asp Val Asn Gln Glu
385 390 395 400

Thr Ser Asp Leu Asp Pro Ser Lys Ser Val Thr Arg Val Asp Asp Gly
405 410 415

Val Ala Ser Phe Val Leu Asn Leu Pro Ser Gly Val Thr Val Leu Glu
420 425 430

Phe Asn Val Lys Thr Asp Ala Pro Asp Leu Pro Glu Glu Asn Gln Ala
435 440 445

Arg Glu Gly Tyr Arg Ala Ile Ala Tyr Ser Ser Leu Ser Gln Ser Tyr
450 455 460

Leu Tyr Ile Asp Trp Thr Asp Asn His Lys Ala Leu Leu Val Gly Glu
465 470 475 480

His Leu Asn Ile Ile Val Thr Pro Lys Ser Pro Tyr Ile Asp Lys Ile
485 490 495

Thr His Tyr Asn Tyr Leu Ile Leu Ser Lys Gly Lys Ile Ile His Phe
500 505 510

Gly Thr Arg Glu Lys Phe Ser Asp Ala Ser Tyr Gln Ser Ile Asn Ile
515 520 525

Pro Val Thr Gln Asn Met Val Pro Ser Ser Arg Leu Leu Val Tyr Tyr
530 535 540

Ile Val Thr Gly Glu Gln Thr Ala Glu Leu Val Ser Asp Ser Val Trp
545 550 555 560

Leu Asn Ile Glu Glu Lys Cys Gly Asn Gln Leu Gln Val His Leu Ser
565 570 575

Pro Asp Ala Asp Ala Tyr Ser Pro Gly Gln Thr Val Ser Leu Asn Met
580 585 590

Ala Thr Gly Met Asp Ser Trp Val Ala Leu Ala Ala Val Asp Ser Ala
595 600 605

Val Tyr Gly Val Gln Arg Gly Ala Lys Lys Pro Leu Glu Arg Val Phe
610 615 620

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Gln Phe Leu Glu Lys Ser Asp Leu Gly Cys Gly Ala Gly Gly Gly Leu
625                 630                 635                 640

Asn Asn Ala Asn Val Phe His Leu Ala Gly Leu Thr Phe Leu Thr Asn
                645                 650                 655

Ala Asn Ala Asp Asp Ser Gln Glu Asn Asp Glu Pro Cys Lys Glu Ile
            660                 665                 670

Leu Arg Pro Arg Arg Thr Leu Gln Lys Lys Ile Glu Glu Ile Ala Ala
        675                 680                 685

Lys Tyr Lys His Ser Val Val Lys Lys Cys Cys Tyr Asp Gly Ala Cys
    690                 695                 700

Val Asn Asn Asp Glu Thr Cys Glu Gln Arg Ala Ala Arg Ile Ser Leu
705                 710                 715                 720

Gly Pro Arg Cys Ile Lys Ala Phe Thr Glu Cys Cys Val Val Ala Ser
                725                 730                 735

Gln Leu Arg Ala Asn Ile Ser His Lys Asp Met Gln Leu Gly Arg Leu
            740                 745                 750

His Met Lys Thr Leu Leu Pro Val Ser Lys Pro Glu Ile Arg Ser Tyr
        755                 760                 765

Phe Pro Glu Ser Trp Leu Trp Glu Val His Leu Val Pro Arg Arg Lys
    770                 775                 780

Gln Leu Gln Phe Ala Leu Pro Asp Ser Leu Thr Thr Trp Glu Ile Gln
785                 790                 795                 800

Gly Val Gly Ile Ser Asn Thr Gly Ile Cys Val Ala Asp Thr Val Lys
                805                 810                 815

Ala Lys Val Phe Lys Asp Val Phe Leu Glu Met Asn Ile Pro Tyr Ser
            820                 825                 830

Val Val Arg Gly Glu Gln Ile Gln Leu Lys Gly Thr Val Tyr Asn Tyr
        835                 840                 845
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Arg Thr Ser Gly Met Gln Phe Cys Val Lys Met Ser Ala Val Glu Gly
    850                 855                 860

Ile Cys Thr Ser Glu Ser Pro Val Ile Asp His Gln Gly Thr Lys Ser
865                 870                 875                 880

Ser Lys Cys Val Arg Gln Lys Val Glu Gly Ser Ser Ser His Leu Val
                885                 890                 895

Thr Phe Thr Val Leu Pro Leu Glu Ile Gly Leu His Asn Ile Asn Phe
            900                 905                 910

Ser Leu Glu Thr Trp Phe Gly Lys Glu Ile Leu Val Lys Thr Leu Arg
        915                 920                 925

Val Val Pro Glu Gly Val Lys Arg Glu Ser Tyr Ser Gly Val Thr Leu
    930                 935                 940

Asp Pro Arg Gly Ile Tyr Gly Thr Ile Ser Arg Arg Lys Glu Phe Pro
945                 950                 955                 960

Tyr Arg Ile Pro Leu Asp Leu Val Pro Lys Thr Glu Ile Lys Arg Ile
                965                 970                 975

Leu Ser Val Lys Gly Leu Leu Val Gly Glu Ile Leu Ser Ala Val Leu
            980                 985                 990

Ser Gln Glu Gly Ile Asn Ile Leu  Thr His Leu Pro Lys  Gly Ser Ala
        995                 1000                1005

Glu Ala  Glu Leu Met Ser Val  Val Pro Val Phe Tyr  Val Phe His
    1010                1015                1020

Tyr Leu  Glu Thr Gly Asn His  Trp Asn Ile Phe His  Ser Asp Pro
    1025                1030                1035

Leu Ile  Glu Lys Gln Lys Leu  Lys Lys Lys Leu Lys  Glu Gly Met
    1040                1045                1050

Leu Ser  Ile Met Ser Tyr Arg  Asn Ala Asp Tyr Ser  Tyr Ser Val
    1055                1060                1065

Trp Lys  Gly Gly Ser Ala Ser  Thr Trp Leu Thr Ala  Phe Ala Leu
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1070 1075 1080

Arg Val Leu Gly Gln Val Asn Lys Tyr Val Glu Gln Asn Gln Asn
1085 1090 1095

Ser Ile Cys Asn Ser Leu Leu Trp Leu Val Glu Asn Tyr Gln Leu
1100 1105 1110

Asp Asn Gly Ser Phe Lys Glu Asn Ser Gln Tyr Gln Pro Ile Lys
1115 1120 1125

Leu Gln Gly Thr Leu Pro Val Glu Ala Arg Glu Asn Ser Leu Tyr
1130 1135 1140

Leu Thr Ala Phe Thr Val Ile Gly Ile Arg Lys Ala Phe Asp Ile
1145 1150 1155

Cys Pro Leu Val Lys Ile Asp Thr Ala Leu Ile Lys Ala Asp Asn
1160 1165 1170

Phe Leu Leu Glu Asn Thr Leu Pro Ala Gln Ser Thr Phe Thr Leu
1175 1180 1185

Ala Ile Ser Ala Tyr Ala Leu Ser Leu Gly Asp Lys Thr His Pro
1190 1195 1200

Gln Phe Arg Ser Ile Val Ser Ala Leu Lys Arg Glu Ala Leu Val
1205 1210 1215

Lys Gly Asn Pro Pro Ile Tyr Arg Phe Trp Lys Asp Asn Leu Gln
1220 1225 1230

His Lys Asp Ser Ser Val Pro Asn Thr Gly Thr Ala Arg Met Val
1235 1240 1245

Glu Thr Thr Ala Tyr Ala Leu Leu Thr Ser Leu Asn Leu Lys Asp
1250 1255 1260

Ile Asn Tyr Val Asn Pro Val Ile Lys Trp Leu Ser Glu Glu Gln
1265 1270 1275

Arg Tyr Gly Gly Gly Phe Tyr Ser Thr Gln Asp Thr Ile Asn Ala
1280 1285 1290

Ile Glu Gly Leu Thr Glu Tyr Ser Leu Leu Val Lys Gln Leu Arg
1295 1300 1305

Leu Ser Met Asp Ile Asp Val Ser Tyr Lys His Lys Gly Ala Leu
1310 1315 1320

His Asn Tyr Lys Met Thr Asp Lys Asn Phe Leu Gly Arg Pro Val
1325 1330 1335

Glu Val Leu Leu Asn Asp Asp Leu Ile Val Ser Thr Gly Phe Gly
1340 1345 1350

Ser Gly Leu Ala Thr Val His Val Thr Thr Val Val His Lys Thr
1355 1360 1365

Ser Thr Ser Glu Glu Val Cys Ser Phe Tyr Leu Lys Ile Asp Thr
1370 1375 1380

Gln Asp Ile Glu Ala Ser His Tyr Arg Gly Tyr Gly Asn Ser Asp
1385 1390 1395

Tyr Lys Arg Ile Val Ala Cys Ala Ser Tyr Lys Pro Ser Arg Glu
1400 1405 1410

Glu Ser Ser Ser Gly Ser Ser His Ala Val Met Asp Ile Ser Leu
1415 1420 1425

Pro Thr Gly Ile Ser Ala Asn Glu Glu Asp Leu Lys Ala Leu Val
1430 1435 1440

Glu Gly Val Asp Gln Leu Phe Thr Asp Tyr Gln Ile Lys Asp Gly
1445 1450 1455

His Val Ile Leu Gln Leu Asn Ser Ile Pro Ser Ser Asp Phe Leu
1460 1465 1470

Cys Val Arg Phe Arg Ile Phe Glu Leu Phe Glu Val Gly Phe Leu
1475 1480 1485

Ser Pro Ala Thr Phe Thr Val Tyr Glu Tyr His Arg Pro Asp Lys
1490 1495 1500

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Gln Cys  Thr Met Phe Tyr Ser  Thr Ser Asn Ile Lys  Ile Gln Lys
    1505                 1510                 1515

Val Cys  Glu Gly Ala Ala Cys  Lys Cys Val Glu Ala  Asp Cys Gly
    1520                 1525                 1530

Gln Met  Gln Glu Glu Leu Asp  Leu Thr Ile Ser Ala  Glu Thr Arg
    1535                 1540                 1545

Lys Gln  Thr Ala Cys Lys Pro  Glu Ile Ala Tyr Ala  Tyr Lys Val
    1550                 1555                 1560

Ser Ile  Thr Ser Ile Thr Val  Glu Asn Val Phe Val  Lys Tyr Lys
    1565                 1570                 1575

Ala Thr  Leu Leu Asp Ile Tyr  Lys Thr Gly Glu Ala  Val Ala Glu
    1580                 1585                 1590

Lys Asp  Ser Glu Ile Thr Phe  Ile Lys Lys Val Thr  Cys Thr Asn
    1595                 1600                 1605

Ala Glu  Leu Val Lys Gly Arg  Gln Tyr Leu Ile Met  Gly Lys Glu
    1610                 1615                 1620

Ala Leu  Gln Ile Lys Tyr Asn  Phe Ser Phe Arg Tyr  Ile Tyr Pro
    1625                 1630                 1635

Leu Asp  Ser Leu Thr Trp Ile  Glu Tyr Trp Pro Arg  Asp Thr Thr
    1640                 1645                 1650

Cys Ser  Ser Cys Gln Ala Phe  Leu Ala Asn Leu Asp  Glu Phe Ala
    1655                 1660                 1665

Glu Asp  Ile Phe Leu Asn Gly  Cys
    1670                 1675
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