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aataccattc ataactttca ttaaagcatt tactttgaac ttctccaatg cttagattct 5100
ttttaccggg aatggatadc actaatcata ataaaattca acgatttttt tttcttgttt 5160
ataatacatt gtgttatatg ttcaaatctg aaatgtgat gcacctggtg aaatatgttt 5220
aatgcagtta ttaacatttg cagaacaatt ttacaggccc cagttatcca atagtctaata 5280
aattgtttaa gatctagaaa aaaatcaaga atagtggat gtttcatgaa gtaataaaaa 5340
ctcattttca tgaa 5354
    
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We claim:

1. A double-stranded ribonucleic acid (dsRNA), wherein said dsRNA comprises a sense strand and an antisense strand that form a duplex structure, wherein the antisense strand consists of the sequence of SEQ ID NO:90 and the sense strand consists of the sequence of SEQ ID NO:89,

wherein each strand is modified as follows to include a 2'-O-methyl ribonucleotide as indicated by a lower case letter "c" or "u" and a phosphorothioate as indicated by a lower case letter "s";

SEQ ID NO:89 is cuGGcuGAAuuucAGAGcATsT and SEQ ID NO:90 is UGCUCUGAAAuUcAGCcAGTsT, and wherein said dsRNA targets cleavage of a CD45 mRNA.

2. The dsRNA of claim 1, wherein said dsRNA, upon contact with a cell expressing said CD45 gene, inhibits expression of said CD45 gene by at least 40% as compared to expression of a CD45 gene in a cell treated with a control dsRNA.

3. The dsRNA of claim 1, wherein said dsRNA, upon contact with a cell expressing CD45, inhibits expression of CD45 by at least 40% as compared to expression of a CD45 gene in a cell treated with a control dsRNA as measured in the P388D1 cell assay.

4. A cell comprising the dsRNA of claim 1.

5. A pharmaceutical composition comprising a dsRNA of claim 1, and a pharmaceutically acceptable carrier.

6. The pharmaceutical composition of claim 5, wherein said dsRNA, upon contact with a cell expressing said CD45 gene, inhibits expression of said CD45 gene by at least 40%, as compared to expression of a CD45 gene in a cell treated with a control dsRNA, as measured in a P388D1 cell assay.

7. A method for inhibiting expression of a CD45 gene in a cell, the method comprising:

(a) introducing into the cell a double-stranded ribonucleic acid (dsRNA) of claim 1; and

(b) maintaining the cell produced in step (a) for a time sufficient to obtain degradation of the mRNA transcript of the CD45 gene, thereby inhibiting expression of the CD45 gene in the cell.

8. The method of claim 7, wherein the cell produced in step (a) is maintained for a time sufficient to inhibit expression of CD45 by 40% as compared to expression of a CD45 gene in a cell treated with a control dsRNA.

9. A method of treating or managing an autoimmune disease comprising administering to a patient in need of such treatment, or management of a therapeutically effective amount of a dsRNA of claim 1.

10. The method of claim 9, wherein the autoimmune disease is Graves' disease or multiple sclerosis.

11. A method of treating or managing a viral infection comprising administering to a patient in need of such treatment or management of a therapeutically effective amount of a dsRNA of claim 1.

12. The method of claim 11, wherein the infection is caused by a virus of the group consisting of Ebola, influenza, anthrax, hepatitis B and hepatitis C.

13. A vector for inhibiting the expression of the CD45 gene in a cell, said vector comprising a regulatory sequence operably linked to the dsRNA of claim 1.

14. A cell comprising the vector of claim 13.

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