CLAIMS

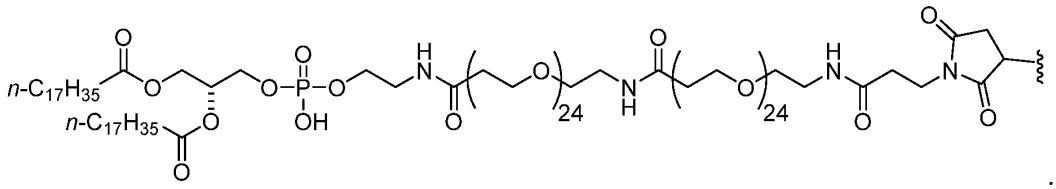
1. A compound comprising a mutant KRAS sequence and a lipid, wherein the mutant KRAS sequence is conjugated to the lipid by a linker, and (i) the linker comprises one or more polyethylene glycol blocks, (ii) the lipid is 1,2-distearoyl-*sn*-glycero-3-phosphoethanolamine (DSPE), and (iii) the mutant KRAS sequence consists of an amino acid sequence selected from the group consisting of CYKLVVVGADGVGKSALTI (SEQ ID NO:1), CYKLVVVGAVGVGKSALTI (SEQ ID NO:2), CYKLVVVGARGVGKSALTI (SEQ ID NO:3), CYKLVVVGAAGVGKSALTI (SEQ ID NO:4), CYKLVVVGASGVGKSALTI (SEQ ID NO:5), CYKLVVVGACGVGKSALTI (SEQ ID NO:6), CYKLVVVGATGVGKSALTI (SEQ ID NO:22), and CYKLVVVGAGDVGKSALTI (SEQ ID NO:7).

2. The compound of claim 1, wherein the mutant KRAS sequence consists of an amino acid sequence selected from the group consisting of YKLVVVGADGVGKSALTI (SEQ ID NO:23), YKLVVVGAVGVGKSALTI (SEQ ID NO:24), YKLVVVGARGVGKSALTI (SEQ ID NO:25), YKLVVVGAAGVGKSALTI (SEQ ID NO:26), YKLVVVGASGVGKSALTI (SEQ ID NO:27), YKLVVVGACGVGKSALTI (SEQ ID NO:28), YKLVVVGATGVGKSALTI (SEQ ID NO:29), and YKLVVVGAGDVGKSALTI (SEQ ID NO:30).

3. The compound of claim 1 or 2, wherein the mutant KRAS sequence, at its N-terminus, is conjugated to the linker through a cysteine-maleimide linkage.

4. The compound of claim 1 or 2, wherein linker comprises 48 repeat units of polyethylene glycol.

5. The compound of claim 1 or 2, wherein the mutant KRAS sequence, at its N-terminus, is conjugated to the following structure:



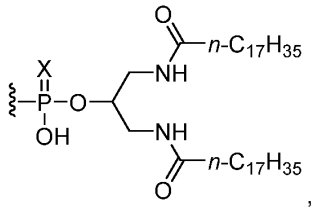
6. A composition comprising one or more compounds of claim 1 or 2, and a pharmaceutically acceptable carrier.

7. The composition of claim 6, wherein the composition comprises (1) a compound comprising the amino acid sequence YKLVVVGADGVGKSALTI (SEQ ID NO:23), (2) a compound comprising the amino acid sequence YKLVVVGAVGVGKSALTI (SEQ ID NO:24), (3) a compound comprising the amino acid sequence YKLVVVGARGVGKSALTI (SEQ ID NO:25), (4) a compound comprising the amino acid sequence YKLVVVGAAGVGKSALTI (SEQ ID NO:26), (5) a compound comprising the amino acid sequence

YKLVVVGASGVGKSALTI (SEQ ID NO:27), (6) a compound comprising the amino acid sequence YKLVVVGACGVGKSALTI (SEQ ID NO:28) or a compound comprising the amino acid sequence YKLVVVGATGVGKSALTI (SEQ ID NO:29), and (7) a compound comprising the amino acid sequence YKLVVVGAGDVGKSALTI (SEQ ID NO:30).

8. The composition of claim 6, wherein the composition comprises (1) a compound comprising the amino acid sequence CYKLVVVGADGVGKSALTI (SEQ ID NO:1), (2) a compound comprising the amino acid sequence CYKLVVVGAVGVGKSALTI (SEQ ID NO:2), (3) a compound comprising the amino acid sequence CYKLVVVGARGVGKSALTI (SEQ ID NO:3), (4) a compound comprising the amino acid sequence CYKLVVVGAAGVGKSALTI (SEQ ID NO:4), (5) a compound comprising the amino acid sequence CYKLVVVGASGVGKSALTI (SEQ ID NO:5), (6) a compound comprising the amino acid sequence CYKLVVVGACGVGKSALTI (SEQ ID NO:6) or a compound comprising the amino acid sequence CYKLVVVGATGVGKSALTI (SEQ ID NO:22), and (7) a compound comprising the amino acid sequence CYKLVVVGAGDVGKSALTI (SEQ ID NO:7).

9. The composition of claim 6, wherein the composition further comprises a compound consisting of the nucleotide sequence 5'-TCGTCGTTTTGTCGTTTTGTCGTT-3' (SEQ ID NO:8), which, at its 5' end, is bonded or linked by a linker to the following lipid:



,

or a salt thereof,
wherein X is O or S.

10. The composition of claim 6, wherein the composition comprises 700 μg of each compound.

11. The composition of claim 9, wherein the nucleotide sequence is bonded to the lipid.

12. A method of treating a cancer in a human patient, the method comprising administering the composition of claim 6 the patient.

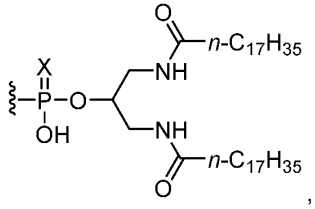
13. The method of claim 12, wherein the method further comprises administering an adjuvant.

14. The method of claim 13, wherein the adjuvant comprises a CpG nucleotide sequence.

15. The method of claim 14, wherein the CpG nucleotide sequence comprises 5'-TCGTCGTTTTGTCGTTTTGTCGTT-3' (SEQ ID NO: 8).

16. The method of claim 12, wherein 0.1 mg, 0.5 mg, or 2.5 mg of the adjuvant is administered.

17. The method of claim 12, wherein the method further comprises administering to the patient a compound consisting of the nucleotide sequence 5'-TCGTCGTTTTGTCGTTTTGTCGTT-3' (SEQ ID NO:8), which, at its 5' end, is bonded or linked by a linker to the following lipid:

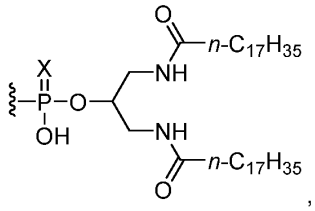


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or a salt thereof,
wherein X is O or S.

18. The method of claim 17, wherein the nucleotide sequence is bonded to the lipid.

19. The method of claim 17, wherein 0.1 mg, 0.5 mg, or 2.5 mg of the compound consisting of the nucleotide sequence 5'-TCGTCGTTTTGTCGTTTTGTCGTT-3' (SEQ ID NO:8), which, at its 5' end, is bonded or linked by a linker to the following lipid:



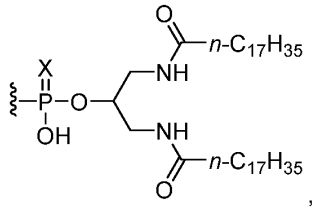
,

or a salt thereof,
wherein X is O or S,
is administered.

20. The method of claim 12, wherein the cancer is a pancreatic cancer, a lung cancer, or a colorectal cancer.

21. The method of claim 12, wherein all internucleoside groups connecting the nucleosides in 5'-TCGTCGTTTTGTCGTTTTGTCGTT-3' (SEQ ID NO:8) are phosphorothioates.

22. A kit comprising (i) a compound of claim 1 or 2, and (ii) a compound consisting of the nucleotide sequence 5'-TCGTCGTTTTGTCGTTTTGTCGTT-3' (SEQ ID NO:8), which, at its 5' end, is bonded or linked by a linker to the following lipid:



,

or a salt thereof,

wherein X is O or S.