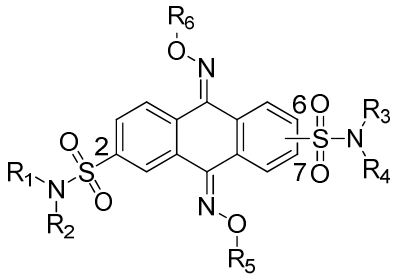
CLAIMS

WHAT IS CLAIMED IS:

1. A compound having a structure represented by a formula (I)



Formula (I)

or a polymorph, a geometric isomer, a stereoisomer, an enantiomer, a diastereomer, a solvate, an ester, a tautomer, or a pharmaceutically acceptable salt thereof:

wherein

R_1, R_2, R_3, and R_4 are each independently selected from H, alkyl, heteroalkyl, cycloalkyl, arylcycloalkyl, alkenyl, alkynyl, aryl, heteroaryl, heterocycloalkyl, and each of said NR_1R_2 and NR_3R_4 can independently combine to form a 6- to 15-membered heterocycloalkyl;

R_5 is independently selected from the group consisting of H, $–P(O)(OH)_2$, $-CHR_7-O-P(O)(OH)_2$, $–C(O)-R_8$, and $-CHR_7-O-C(O)-R_8$; and wherein R_6 is $–P(O)(OH)_2$. ,

R_7 is H or an optionally substituted lower alkyl;

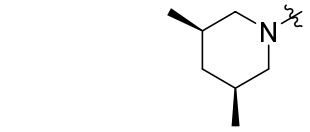
R_8 is a lower alkyl, $-OR_{11}$, - aryl, heteroaryl or heterocycloalkyl, wherein said lower alkyl, aryl, heteroaryl or heterocycloalkyl is optionally substituted with $–NR_9R_{10}$ and/or OR_{12};

R_9 and R_{10} are independently selected from the group consisting of H, $–P(O)(OH)_2$, and optionally substituted lower alkyl;

R_{11} is independently selected from the group consisting of lower alkyl, aryl, heteroaryl and heterocycloalkyl wherein said lower alkyl, aryl, heteroaryl or heterocycloalkyl is optionally substituted with $–NR_9R_{10}$ and/or -OH; and

R_{12} is H or $-P(O)(OH)_2$.

2. The compound of claim 1, wherein NR_1R_2 and NR_3R_4 are selected from.



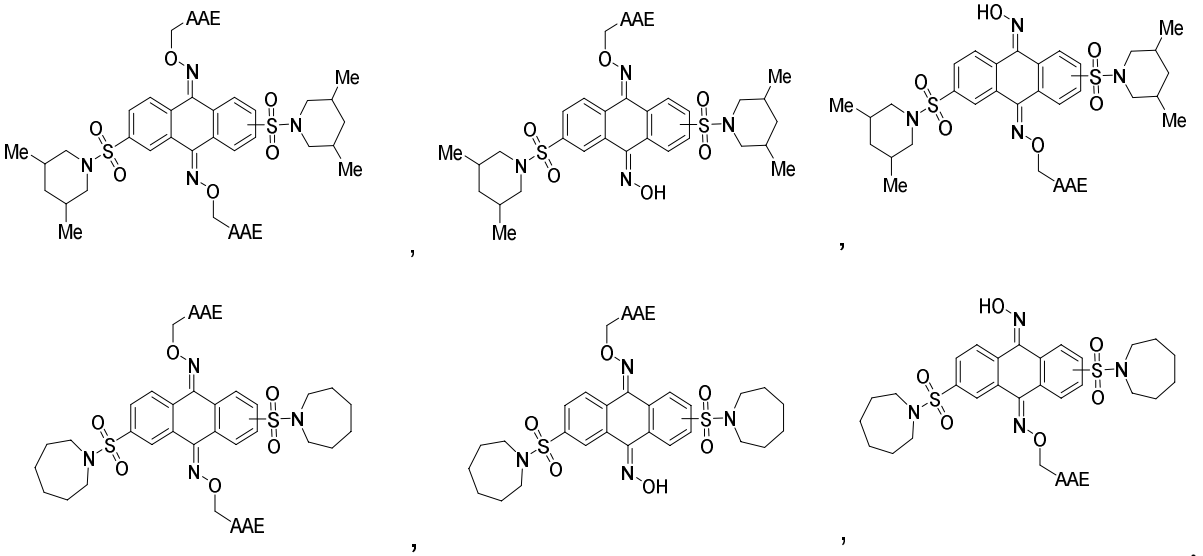
(3R,5S)-3,5-dimethylpiperidin-1-yl and azepanyl.

3. The compound of claim 1, wherein R_5 is H.

4. The compound of claim 1, wherein R_5 is independently selected from the group consisting of H, $-P(O)(OH)_2$, and $-CHR_7-O-P(O)(OH)_2$.

5. The compound of claim 1, wherein R_5 is independently selected from the group consisting of H, $-C(O)-R_8$, and $-CHR_7-O-C(O)-R_8$.

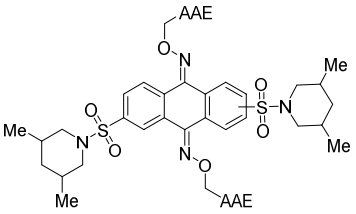
6. The compound of claim 1, wherein said compound is selected from the group consisting of



wherein AAE is an Amino Acid Ester selected from both natural and unnatural aminoacids.

7. The compound of claim 1, wherein said compound is selected from the group

consisting of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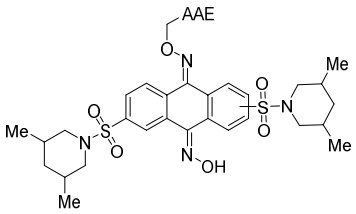
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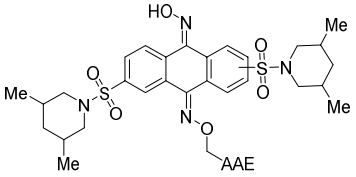
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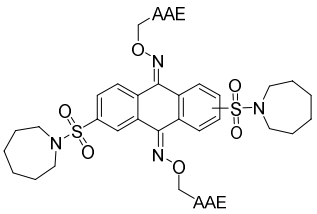
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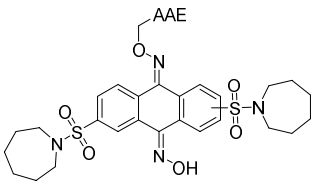
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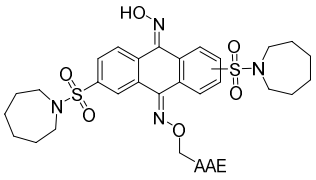
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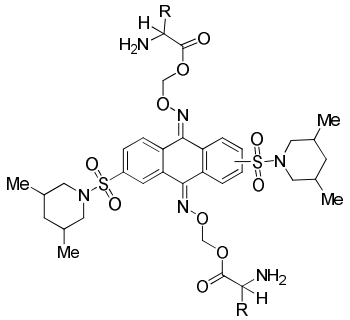
wherein AAE is selected from the group consisting of Glycine, L-Alanine, L-Valine, D-Valine, L-Serine, L-Cysteine, L-Leucine, L-Isoleucine, L-Lysine, L-Phenylalanine, L-Proline, L-Tyrosine and L-Serine.

8. The compound of claim 1, wherein said compound is selected from the group consisting of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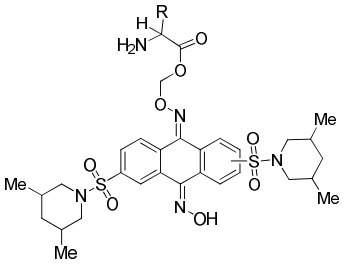
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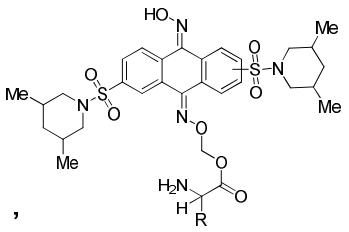
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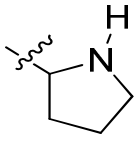
wherein R is selected from the group consisting of H, methyl, isopropyl, t-butyl, $-CH_2OH$, $-CH_2CH(Me)_2$, $-CH(Me)CH_2CH_3$, and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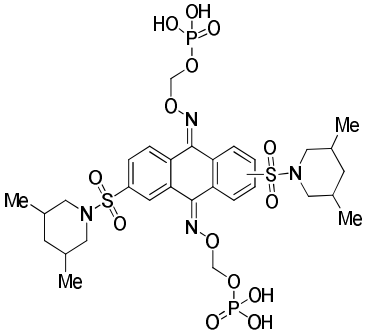
9. The compound of claim 1, wherein said compound is selected from the group

consisting of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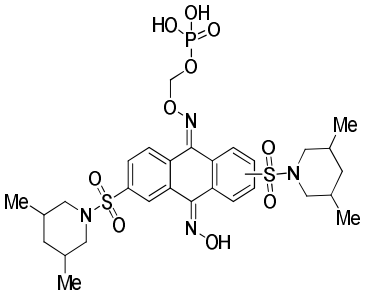
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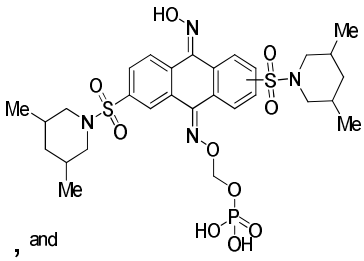
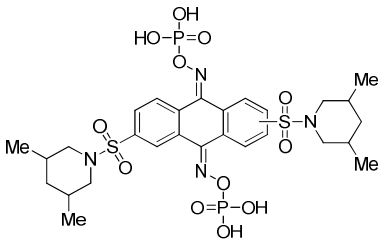


10. The compound of claim 1, wherein said compound is selected from the group consisting of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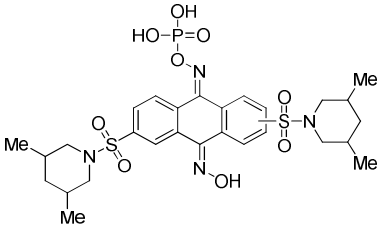
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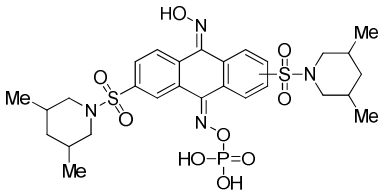
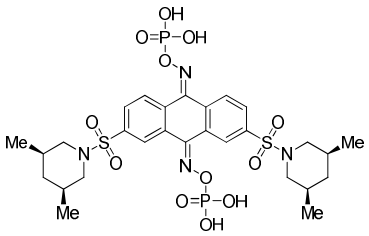


11. The compound of claim 1, wherein said compound is selected from the group consisting of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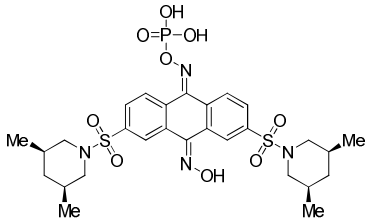
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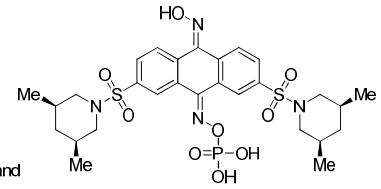
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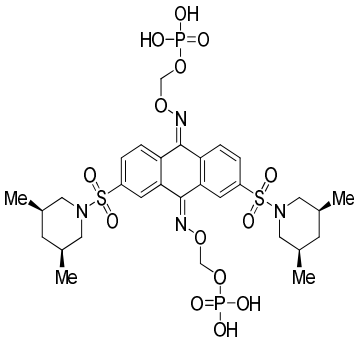
12. The compound of claim 1, wherein said compound is selected from the group consisting of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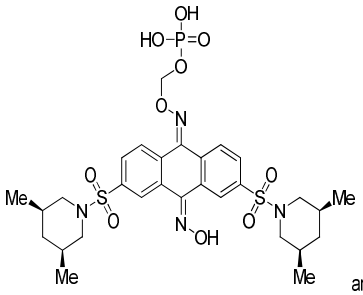
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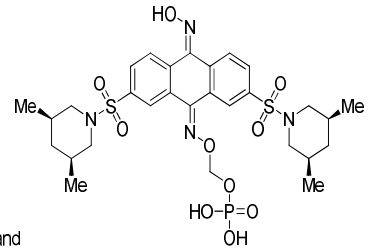
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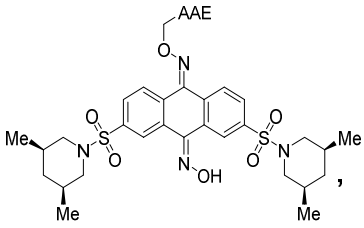
13. The compound of claim 1, wherein said compound is selected from the group consisting of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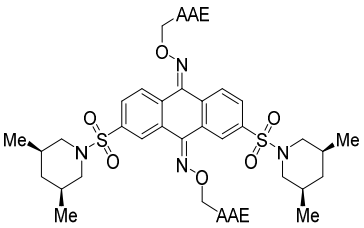
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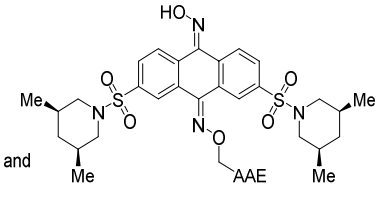
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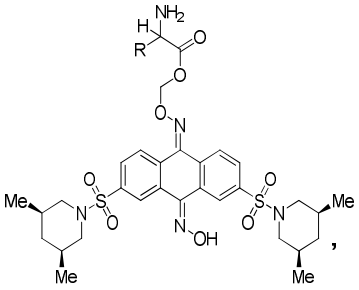
wherein AAE is an Amino Acid Ester selected from both natural and unnatural amino acids.

14. The compound of claim 1, wherein said compound is selected from the group consisting of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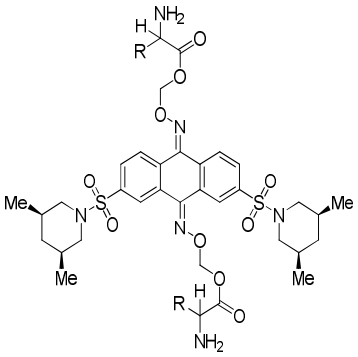
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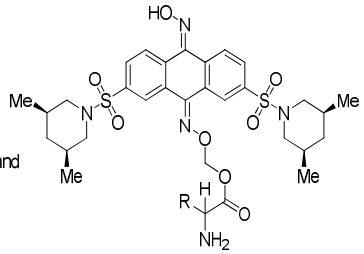
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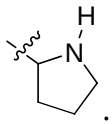
wherein R is selected from the group consisting of H, methyl, i-propyl, t-butyl, $-CH_2OH$, $-CH_2CH(Me)_2$, $-CH(Me)CH_2CH_3$, and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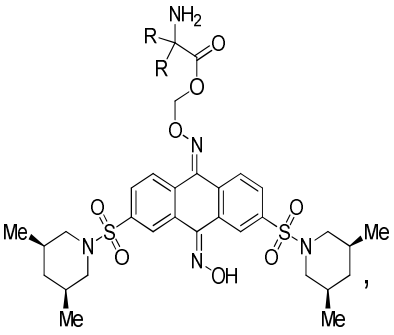
15. The compound of claim 1, wherein said compound is selected from the group consisting of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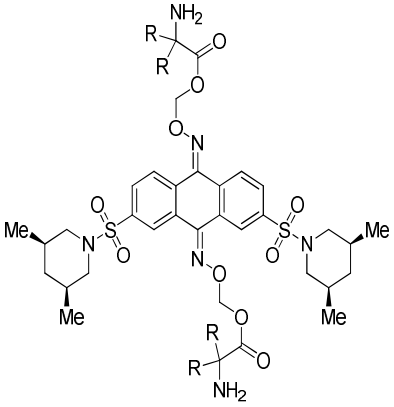
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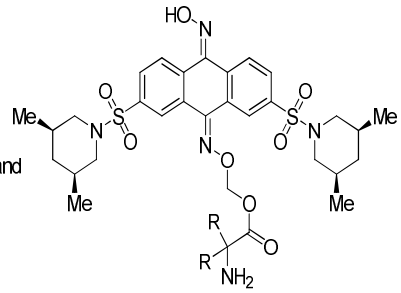
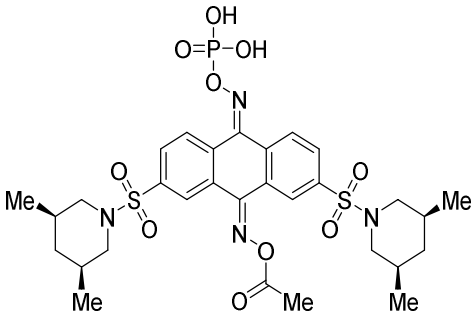


wherein R is CH_3 or ethyl, or R and R together form cyclopropyl, cyclopentyl, or pyran.

16. The compound of claim 1, wherein said compound has the following structure:



17. Use of an effective amount of a compound of claim 1 in the manufacture of a medicament for preventing, treating or ameliorating cancer or tumor metastasis in a mammal in need thereof.

18. Use of a combination of: 1) a pharmaceutically effective amount of a compound of Formula I or a polymorph, a geometric isomer, a stereoisomer, an enantiomer, a diastereomer, a solvate, an ester, a tautomer or a pharmaceutically acceptable salt thereof; and 2) a pharmaceutically effective amount of at least one additional anti-cancer agent in the manufacture of a mediament for treating cancer in a subject.

19. The use of claim 18, wherein the additional anti-cancer agent is selected from the group consisting of antimitotic agents, antimetabolite agents, HDAC inhibitors, proteosome inhibitors, immunotherapeutic agents, FLT-3 kinase inhibitors, and WNT pathway inhibitors.