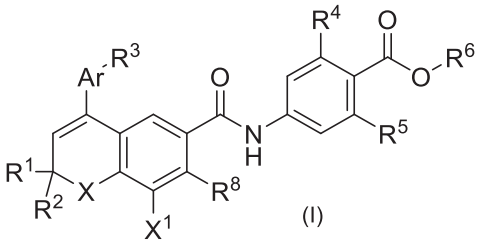
a) a RARα antagonist, wherein the RARα antagonist is:

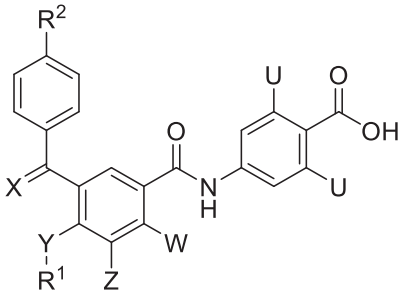
i) a compound of general formula (I)



(I)

wherein $R^1$, $R^2$, $R^3$, and $R^6$ are independently H or $C_{1-6}$ alkyl; $R^4$ and $R^5$ are independently H or F; Ar is phenyl, pyridyl, thienyl, furyl, or naphthyl; X is $C(CH_3)_2$, O, S, or $NR^7$, wherein $R^7$ is H or $C_{1-6}$ alkyl; $X^1$ is H or halogen such as F, Cl or Br; and $R^8$ is H or OH; or

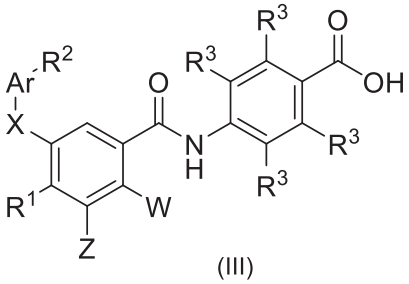
ii) a compound of general formula (II)



(II)

wherein $R^1$ and $R^2$ are independently $C_{1-6}$ alkyl; X is O, S, or $CH_2$; Y is O, S, $CH_2$, or $NR^3$, wherein $R^3$ is $C_{1-6}$; Z is Cl or Br; W is H or OH; and U is independently H or F; or

iii) a compound of general formula (III):



(III)

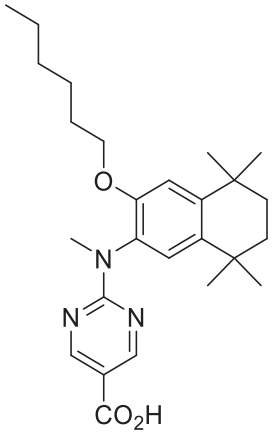
wherein $R^1$ and $R^2$ are independently H or $C_{1-6}$ alkyl; $R^3$ is H or F; Ar is phenyl, pyridyl, thienyl, furyl, or naphthyl; X is O, S, N, or $CH_2$; W is H or OH; and Z is Cl or Br; or

iv) BMS185411, BMS614, Ro41-5253, Ro46-5471, or AGN 194777; or

b) a RARγ selective agonist, wherein the RARγ selective agonist is:

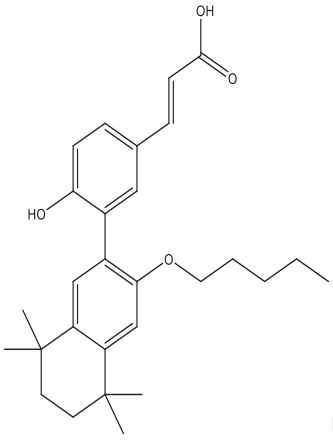
CD437, CD2325, CD666, or BMS961; or

c) a RXR antagonist, wherein the RXR antagonist is: AGN195393, LGN100849,



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, or



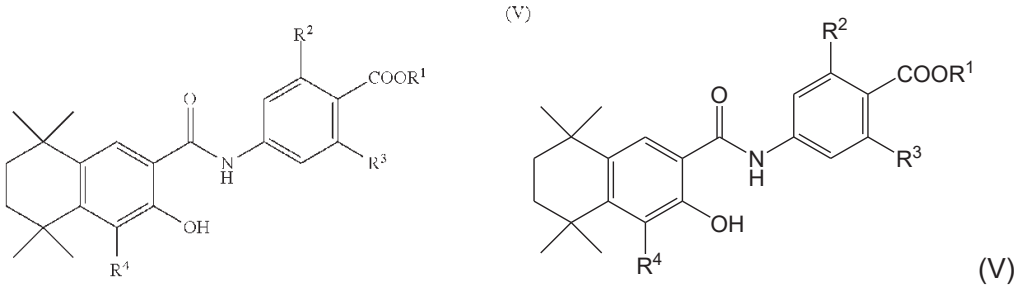
UVI 3003

or

d) a combination thereof; and

wherein the differentiating RAR active agent is a CYP26-resistant RARα agonist,

wherein the RARα agonist is a compound of general formula (V):



(V)

wherein $R^1$ is H or $C_{1-6}$ alkyl, $R^2$ and $R^3$ are independently H or F, and $R^4$ is a halogen.

**[0011]** In some embodiments, the retinoid active agent is a RARα antagonist. In some embodiments, the RARα antagonist is a compound of general formula (I):

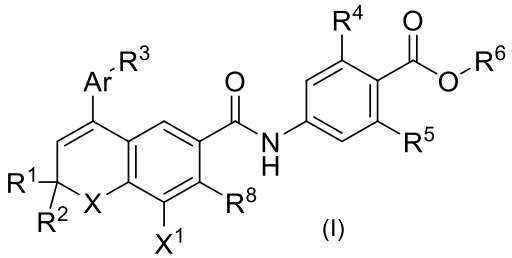
**What is claimed is:**

1. Use of an immunomodulatory retinoid active agent and/or rexinoid active agent (RAR/RXR active agent) in the manufacture of a medicament for cancer immunotherapy, wherein the RAR/RXR active agent is to be administered to a subject in need thereof, and wherein the RAR/RXR active agent is to be administered with chimeric antigen receptor-modified immune cells (CAR-MIC) and a differentiating RAR active agent, wherein the RAR/RXR active agent and differentiating RAR active agent are not to be administered at the same time,

wherein the immunomodulatory RAR/RXR active agent is:

a) a RARα antagonist, wherein the RARα antagonist is:

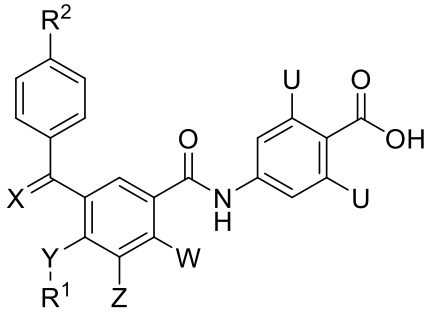
i) a compound of general formula (I)




(I)

wherein $R^1$, $R^2$, $R^3$, and $R^6$ are independently H or $C_{1-6}$ alkyl; $R^4$ and $R^5$ are independently H or F; Ar is phenyl, pyridyl, thienyl, furyl, or naphthyl; X is $C(CH_3)_2$, O, S, or $NR^7$, wherein $R^7$ is H or $C_{1-6}$ alkyl; $X^1$ is H or halogen such as F, Cl or Br; and $R^8$ is H or OH; or

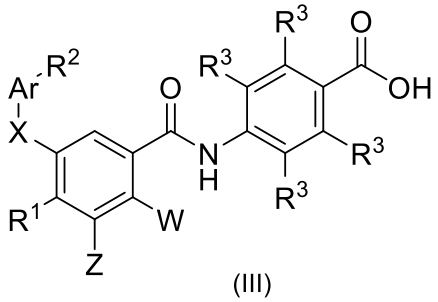
ii) a compound of general formula (II)




(II)

wherein $R^1$ and $R^2$ are independently $C_{1-6}$ alkyl; X is O, S, or $CH_2$; Y is O, S, $CH_2$, or $NR^3$, wherein $R^3$ is $C_{1-6}$; Z is Cl or Br; W is H or OH; and U is independently H or F; or

iii) a compound of general formula (III):



(III)

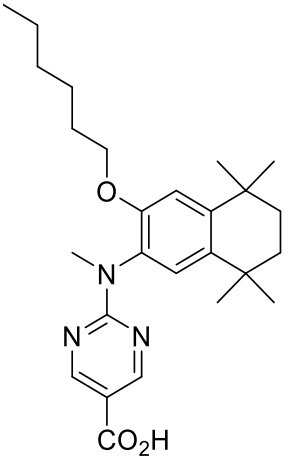
wherein $R^1$ and $R^2$ are independently H or $C_{1-6}$ alkyl; $R^3$ is H or F; Ar is phenyl, pyridyl, thienyl, furyl, or naphthyl; X is O, S, N, or $CH_2$; W is H or OH; and Z is Cl or Br; or

iv) BMS185411, BMS614, Ro41-5253, Ro46-5471, or AGN 194777; or

b) a RARγ selective agonist, wherein the RARγ selective agonist is:

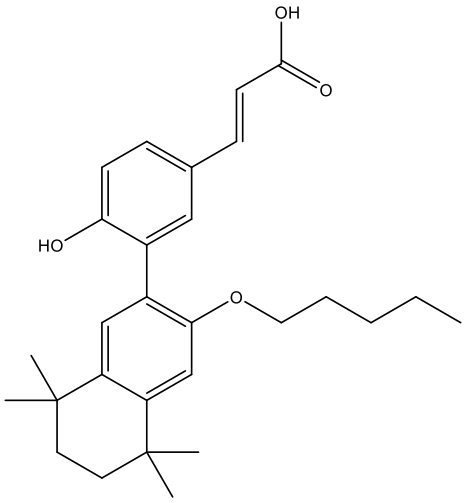
CD437, CD2325, CD666, or BMS961; or

c) a RXR antagonist, wherein the RXR antagonist is: AGN195393, LGN100849,



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, or

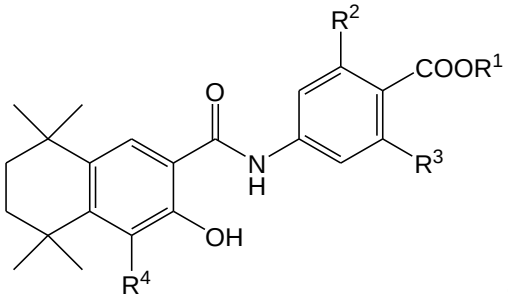


UVI 3003

or

d) a combination thereof; and

wherein the differentiating RAR active agent is a CYP26-resistant RARα agonist, wherein the RARα agonist is a compound of general formula (V):



(V)

wherein $R^1$ is H or $C_{1-6}$ alkyl, $R^2$ and $R^3$ are independently H or F, and $R^4$ is a halogen.

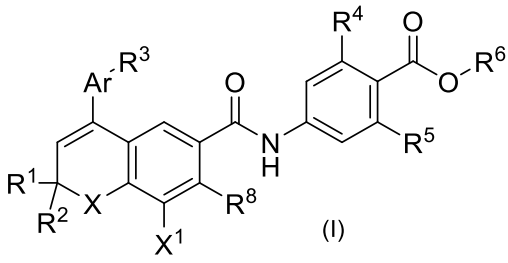
2. The use of claim 1, wherein the CAR-MIC are cultured in a culture medium comprising an immunomodulatory RAR/RXR active agent prior to administration to the subject or cancer patient.

3. The use of claim 1, wherein an immune checkpoint inhibitor that is an inhibitor of at least one of CTLA-4, PD-1, TIM-3, LAG-3, PD-L1 ligand, B7-H3, B7-H4, BTLA, or is an ICOS, or OX40 agonist is to be further administered, wherein the immune checkpoint inhibitor is an antibody.

4. The use of claim 1, wherein the immunomodulatory RAR/RXR active agent comprises at least two RAR active agents.

5. The use of claim 4, wherein a first RAR active agent is a RARα antagonist, and a second RAR active agent is a RARγ selective agonist, or wherein a first RAR active agent is a RARα selective antagonist, and a second RAR active agent is a RARγ agonist.

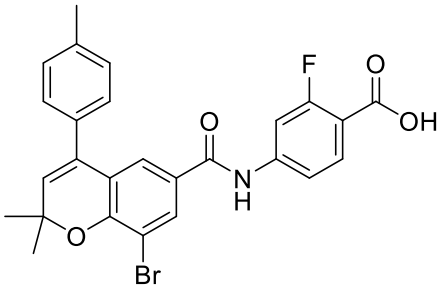
6. The use of claim 1, wherein the RARα antagonist is a compound of general formula (I)



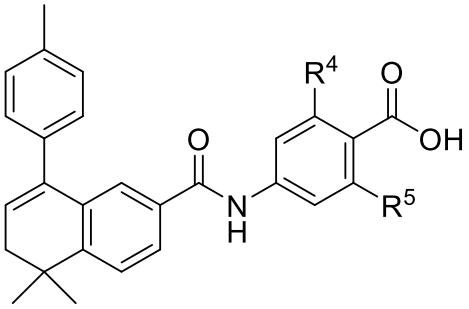
(I)

wherein $R^1$, $R^2$, $R^3$, and $R^6$ are independently H or $C_{1-6}$ alkyl; $R^4$ and $R^5$ are independently H or F; Ar is phenyl, pyridyl, thienyl, furyl, or naphthyl; X is $C(CH_3)_2$, O, S, or $NR^7$, wherein $R^7$ is H or $C_{1-6}$ alkyl; $X^1$ is H or halogen such as F, Cl or Br; and $R^8$ is H or OH.

7. The method of claim 6, wherein the RARα antagonist is:

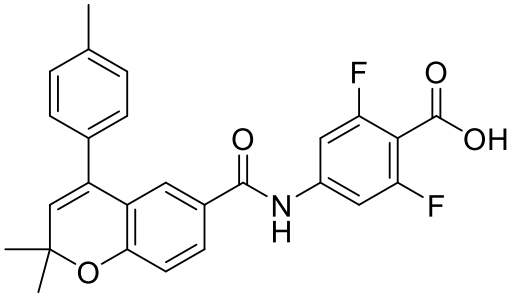


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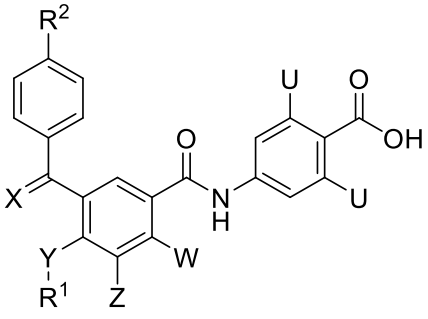
$R^4$ and $R^5$ both H; AGN193491
$R^4$ = F, $R^5$ = H; AGN193618
$R^4$ and $R^5$ both F; AGN194202

, or



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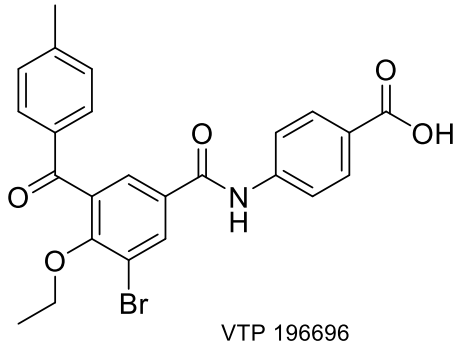
8. The use of claim 1, wherein the RARα antagonist is a compound of general formula (II)



(II)

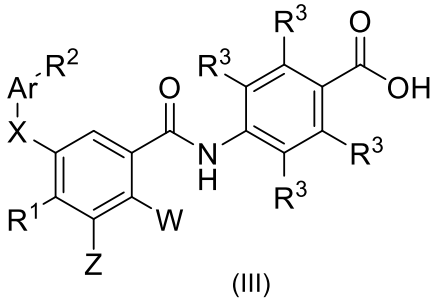
wherein $R^1$ and $R^2$ are independently $C_{1-6}$ alkyl; X is O, S, or $CH_2$; Y is O, S, $CH_2$, or $NR^3$, wherein $R^3$ is $C_{1-6}$; Z is Cl or Br; W is H or OH; and U is independently H or F.

9. The use of claim 8, wherein the RARα antagonist is:




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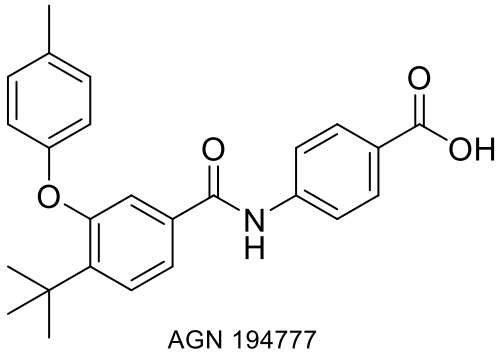
10. The use of claim 1, wherein the RARα antagonist is a compound of general formula (III):




(III)

wherein $R^1$ and $R^2$ are independently H or $C_{1-6}$ alkyl; $R^3$ is H or F; Ar is phenyl, pyridyl, thienyl, furyl, or naphthyl; X is O, S, N, or $CH_2$; W is H or OH; and Z is Cl or Br.

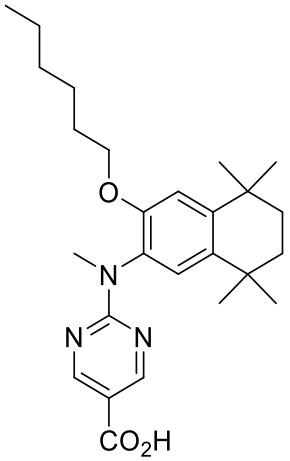
11. The use of claim 1, wherein the RARα antagonist is BMS185411, BMS614, Ro41-5253, Ro46-5471, or



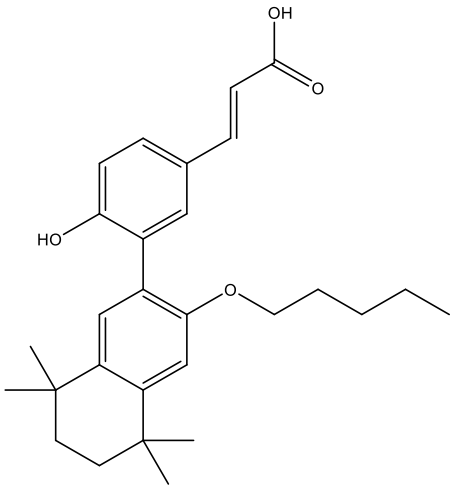

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12. The use of claim 1, wherein the RARγ selective agonist is:
selected from CD437, CD2325, CD666, and BMS961.

13. The use of claim 1, wherein the RXR antagonist is selected from AGN195393, LGN100849,

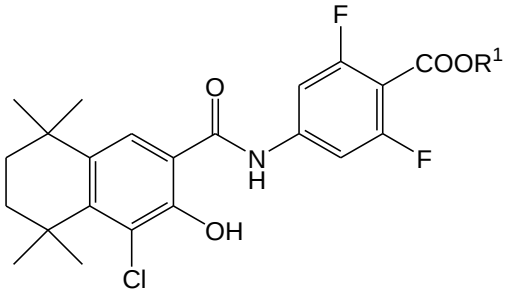



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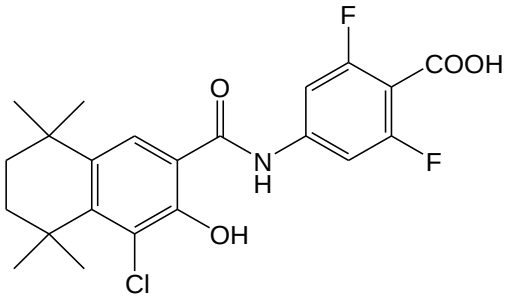
14. The use of claim 1, wherein the RARα agonist is a compound of general formula (VI):




(VI)

wherein $R^1$ is H or $C_{1-6}$ alkyl.

15. The use of claim 14, wherein the RARα agonist is a compound of formula (VII):




(VII)

16. The use of claim 1, wherein the CAR-MIC is a CAR-T cell.

17. The use of claim 1, wherein the differentiating RAR active agent is to be administered for a period of time of 1 to 4 weeks, and its administration is to be discontinued 2-10 days, before administration of CAR-MIC is scheduled to begin.

18. The use of claim 1, wherein the immunomodulatory RAR/RXR active agent is to be administered for at least 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10 days before administration of CAR-MIC is scheduled to begin.

19. The use of claim 1, wherein the immunomodulatory RAR/RXR active agent is to be administered subsequent to administration of the CAR-MIC, wherein administration of the immunomodulatory RAR/RXR active agent is to be suspended for a period of 1 to 3 weeks during which time a differentiating RAR active agent is to be administered, and administration of the immunomodulatory RAR/RXR active agent is to be resumed thereafter.