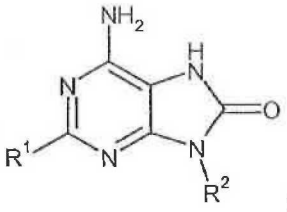
Claims

1. A method of treatment of allergic diseases and other inflammatory conditions for example allergic rhinitis and asthma, infectious diseases, and cancer which method comprises administering an effective amount of a compound of formula (I):

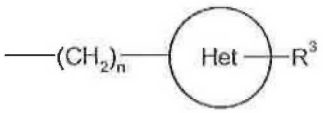


(I)

wherein;

R^1 is C_{1-6}alkylamino, or C_{1-6}alkoxy;

R^2 is a group having the structure:



n is an integer having a value of 1 to 6;

Het is a 6-membered saturated heterocycle containing one nitrogen atom wherein Het is attached to the $-(CH_2)_n-$ moiety at any carbon atom of the heterocycle;

R^3 is hydrogen, C_{1-8}alkyl, or C_{3-7}cycloalkylC_{0-6}alkyl;

or a pharmaceutically acceptable salt thereof.

2. A compound of formula (I'):

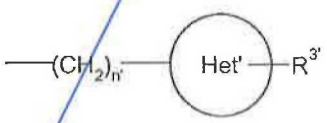


(I')

wherein;

$R^{1'}$ is C_{1-6}alkylamino, or C_{1-6}alkoxy;

$R^{2'}$ is a group having the structure:



n' is an integer having a value of 1 to 6;
Het' is a 6-membered saturated heterocycle containing one nitrogen atom wherein Het' is attached to the -$(CH_2)_{n'}$- moiety at any carbon atom of the heterocycle;
$R^{3'}$ is hydrogen, C_{1-8}alkyl, or C_{3-7}cycloalkylC_{0-6}alkyl;
or a salt thereof;
with the proviso that a compound of formula (I') is not 2-butoxy-7,8-dihydro-9-[2-(piperidin-2-yl)ethyl]-8-oxoadenine.

3. A compound according to claim 2, or a salt thereof, wherein $R^{1'}$ is n-butyloxy.

4. A compound according to claim 2, or a salt thereof, wherein $R^{1'}$ is (1*S*)-1-methylbutoxy.

5. A compound according to any one of claims 2 to 4, or a salt thereof, wherein n' is 2, 3, or 4.

6. A compound according to any one of claims 2 to 7, or a salt thereof, wherein $R^{3'}$ is ethyl.

7. A compound according to any one of claims 2 to 7, or a salt thereof, wherein $R^{3'}$ is 1-methylethyl.

8. A compound according to any one of claims 2 to 7, or a salt thereof, wherein $R^{3'}$ is hydrogen.

9. A compound according to any one of claims 2 to 7, or a salt thereof, wherein $R^{3'}$ is n-propyl.

10. A compound or a salt thereof selected from the list consisting of:
6-amino-2-(butyloxy)-9-[4-(1-ethyl-4-piperidinyl)butyl]-7,9-dihydro-8*H*-purin-8-one;
6-amino-9-[2-(1-ethyl-4-piperidinyl)ethyl]-2-{[(1*S*)-1-methylbutyl]oxy}-7,9-dihydro-8*H*-purin-8-one;
6-amino-2-{[(1*S*)-1-methylbutyl]oxy}-9-{2-[1-(1-methylethyl)-4-piperidinyl]ethyl}-7,9-dihydro-8*H*-purin-8-one;
6-amino-2-{[(1*S*)-1-methylbutyl]oxy}-9-[3-(4-piperidinyl)propyl]-7,9-dihydro-8*H*-purin-8-one;
6-amino-2-{[(1*S*)-1-methylbutyl]oxy}-9-{3-[1-(1-methylethyl)-4-piperidinyl]propyl}-7,9-dihydro-8*H*-purin-8-one, and;
6-amino-2-(butyloxy)-9-[4-(1-propyl-4-piperidinyl)butyl]-7,9-dihydro-8*H*-purin-8-one;
and salts thereof.

11. A compound as defined in any one of claims 1 to 10, or a pharmaceutically acceptable salt thereof, for use in therapy.

12. A compound as defined in any one of claims 1 to 10, or a pharmaceutically acceptable salt thereof, for use in the treatment of allergic diseases and other inflammatory conditions.

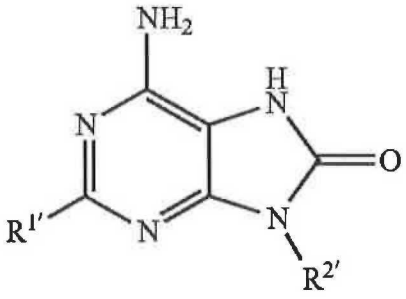
13. A method of treatment of allergic diseases and other inflammatory conditions, which method comprises administering to a human subject in need thereof a therapeutically effective amount of a compound as defined in any one of claims 1 to 10, or a pharmaceutically acceptable salt thereof.

14. A pharmaceutical composition comprising a compound as defined in any one of claims 1 to 10, or a pharmaceutically acceptable salt thereof, and one or more pharmaceutically acceptable diluents or carriers.

15. A method of treating or preventing disease comprising the administration to a patient human subject suffering from or susceptible to disease, a vaccine composition comprising an antigen or antigen composition and a compound as defined in any one of claims 1 to 10, or a pharmaceutically acceptable salt thereof.

Claims

1. A compound of formula (I'):

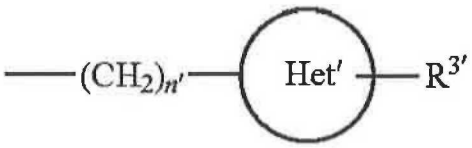


(I')

wherein;

$R^{1'}$ is C_{1-6}alkylamino, or C_{1-6}alkoxy;

$R^{2'}$ is a group having the structure:



n' is an integer having a value of 1 to 6;

Het' is a 6-membered saturated heterocycle containing one nitrogen atom wherein Het' is attached to the $-(CH_2)_{n'}-$ moiety at any carbon atom of the heterocycle;

$R^{3'}$ is hydrogen, C_{1-8}alkyl, or C_{3-7}cycloalkylC_{0-6}alkyl; or a salt thereof;

with the proviso that a compound of formula (I') is not 2-butoxy-7,8-dihydro-9-[2-(piperidin-2-yl)ethyl]-8-oxoadenine.

2. A compound according to claim 1, or a salt thereof, wherein $R^{1'}$ is n-butyloxy.

3. A compound according to claim 1, or a salt thereof, wherein $R^{1'}$ is (1S)-1-methylbutoxy.

4. A compound according to claim 1, or a salt thereof, wherein n' is 2, 3, or 4.

5. A compound according to claim 1, or a salt thereof, wherein $R^{3'}$ is ethyl.

6. A compound according to claim 1, or a salt thereof, wherein $R^{3'}$ is 1-methylethyl.

7. A compound according to claim 1, or a salt thereof, wherein $R^{3'}$ is hydrogen.

8. A compound according to claim 1, or a salt thereof, wherein $R^{3'}$ is n-propyl.

9. A compound or a salt thereof selected from the list consisting of:

6-amino-2-(butyloxy)-9-[4-(1-ethyl-4-piperidinyl)butyl]-7,9-dihydro-8H-purin-8-one;

6-amino-9-[2-(1-ethyl-4-piperidinyl)ethyl]-2-{[(1S)-1-methylbutyl]oxy}-7,9-dihydro-8H-purin-8-one;

6-amino-2-{[(1S)-1-methylbutyl]oxy}-9-{2-[1-(1-methylethyl)-4-piperidinyl]ethyl}-7,9-dihydro-8H-purin-8-one;

6-amino-2-{[(1S)-1-methylbutyl]oxy}-9-[3-(4-piperidinyl)propyl]-7,9-dihydro-8H-purin-8-one;

6-amino-2-{[(1S)-1-methylbutyl]oxy}-9-{3-[1-(1-methylethyl)-4-piperidinyl]propyl}-7,9-dihydro-8H-purin-8-one, and;

6-amino-2-(butyloxy)-9-[4-(1-propyl-4-piperidinyl)butyl]-7,9-dihydro-8H-purin-8-one; and salts thereof.

10. A compound or a salt thereof selected from the list consisting of:

2-(butyloxy)-9-(4-piperidinylmethyl)-9H-purin-6-amine hydrochloride;

2-(butyloxy)-9-[2-(4-piperidinyl)ethyl]-9H-purin-6-amine hydrochloride;

6-amino-2-{[(1S)-1-methylbutyl]oxy}-9-[2-(4-piperidinyl)ethyl]-7,9-dihydro-8H-purin-8-one;

6-amino-2-(butyloxy)-9-[3-(4-piperidinyl)propyl]-7,9-dihydro-8H-purin-8-one;

6-amino-2-{[(1S)-1-methylbutyl]oxy}-9-[3-(4-piperidinyl)propyl]-7,9-dihydro-8H-purin-8-one;

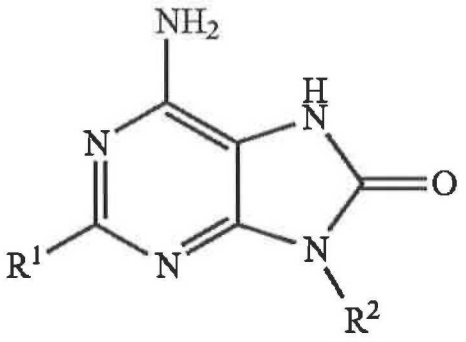
6-amino-2-(butyloxy)-9-[4-(4-piperidinyl)butyl]-7,9-dihydro-8H-purin-8-one;

6-amino-2-{[(1S)-1-methylbutyl]oxy}-9-[4-(4-piperidinyl)butyl]-7,9-dihydro-8H-purin-8-one;

6-amino-2-(butyloxy)-9-[5-(4-piperidinyl)pentyl]-7,9-dihydro-8H-purin-8-one, and;

6-amino-2-(butyloxy)-9-[6-(4-piperidinyl)hexyl]-7,9-dihydro-8H-purin-8-one hydrochloride; and salts thereof.

11. A pharmaceutical composition comprising a compound of formula (I):

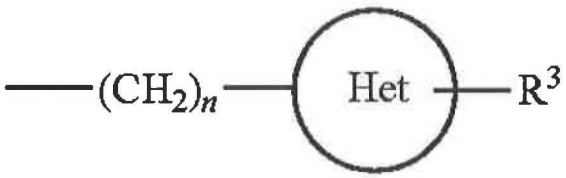


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R^2 is a group having the structure:



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R^3 is hydrogen, C_{1-8}alkyl, or C_{3-7}cycloalkylC_{0-6}alkyl;

or a pharmaceutically acceptable salt thereof, and one or more pharmaceutically acceptable diluents or carriers.