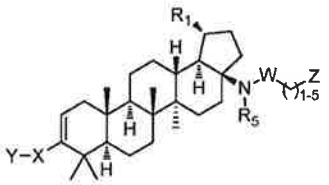
CLAIMS

What is claimed is:

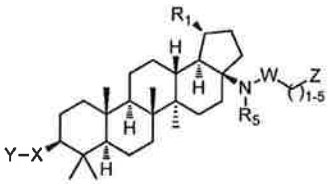
1. A compound, including pharmaceutically acceptable salts thereof, which is selected from the group of:

a compound of Formula I



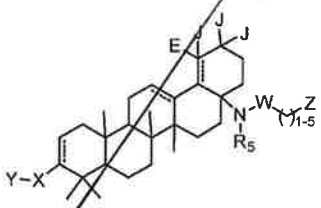
Formula I ;

a compound of Formula II



Formula II ; and

a compound of Formula III



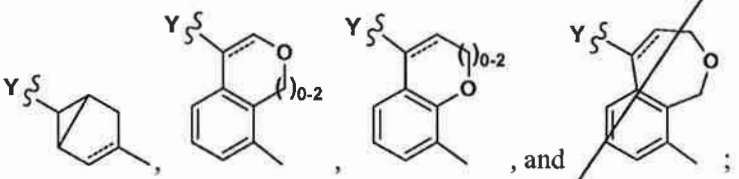
Formula III ;

wherein R_1 is isopropenyl or isopropyl;

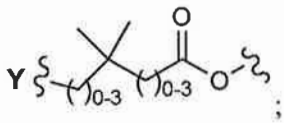
J and E are each independently –H or –CH_3, and E is absent when the double bond is present;

X is selected from the group of phenyl, heteroaryl ring, C_{4-8} cycloalkyl, C_{4-8} cycloalkenyl, C_{4-9} spirocycloalkyl, C_{4-9} spirocycloalkenyl, C_{4-8} oxacycloalkyl, C_{4-8} dioxacycloalkyl, C_{6-8} oxacycloalkenyl, C_{6-8} dioxacycloalkenyl, C_6 cyclodialkenyl, C_6 oxacyclodialkenyl, C_{6-9} oxaspirocycloalkyl and C_{6-9} oxaspirocycloalkenyl ring;

X can also be selected from the group of:



and for compounds of formula II and III, X can also be

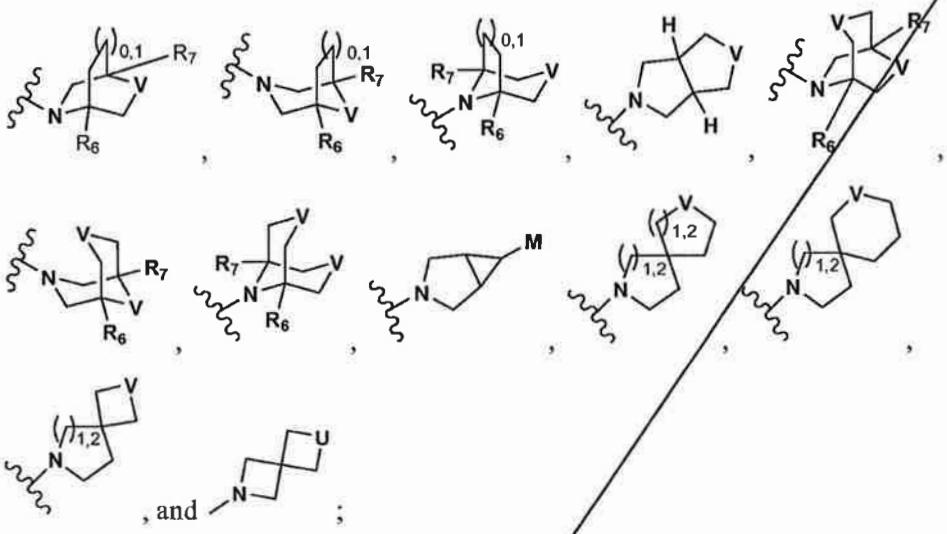


wherein X is substituted with A, and A is at least one member selected from the group of -H, -halo, -hydroxyl, -C_{1-6} alkyl, -C_{1-6} alkoxy, -C_{1-6} haloalkyl, -NR_2R_2, -$COOR_2$, -$C(O)NR_2R_2$, -$C(O)NR_2SO_2R_3$, -$SO_2NR_2R_2$, -$NR_2SO_2R_2$, -$SO_2NR_2R_2$, -C_{1-6} cycloalkyl-$COOR_2$, -C_{2-6} alkenyl-$COOR_2$, -C_{2-6} alkynyl-$COOR_2$, -C_{1-6} alkyl-$COOR_2$, -$NHC(O)(CH_2)_n$-$COOR_2$, -$SO_2NR_2C(O)R_2$, -tetrazole, and -bicyclic heteroaryl-$COOR_2$;

Y is selected from the group of -$COOR_2$, -$C(O)NR_2SO_2R_3$, - $C(O)NHSO_2NR_2R_2$, -$NR_2SO_2R_3$, -$SO_2NR_2R_2$, -C_{3-6} cycloalkyl-$COOR_2$, -C_{2-6} alkenyl-$COOR_2$, -C_{2-6} alkynyl-$COOR_2$, -C_{1-6} alkyl-$COOR_2$, -$NHC(O)(CH_2)_n$-$COOR_2$, -$SO_2NR_2C(O)R_2$, tetrazole, and –CONHOH,
wherein n=1-6;

W is -CH_2 or –CO;

Z is selected from the group of:



V is selected from the group of $-CR_8R_9-$, $-SO_2-$, -O- and $-NR_{10}-$;

U is selected from the group of $-CR_8R_9-$, $-SO_2-$ and $-NR_{10}-$;

M is selected from the group of $-CHR_8R_9$, $-SO_2R_4$, $-SO_2NR_3R_3$, -OH and $-NR_{10}R_{11}-$;

R_2 is -H, $-C_{1-6}$ alkyl, -alkylsubstituted C_{1-6} alkyl or -arylsubstituted C_{1-6} alkyl;

R_3 is $-C_{1-6}$ alkyl or -alkylsubstituted C_{1-6} alkyl;

R_4 is selected from the group of $-C_{1-6}$ alkyl, -alkylsubstituted C_{1-6} alkyl, - C_{3-6} cycloalkl, -aryl and -heteroaryl;

R_5 is selected from the group of –H, $-C_{1-6}$ alkyl, -alkylsubstituted C_{1-6} alkyl and $-C_{1-6}$ alkyl-OH;

R_6 and R_7 are each independently selected from the group of -H, $-C_{1-6}$ alkyl, -alkylsubstituted C_{1-6} alkyl, $-CO_2R_2$, $-CH_2OH$, $-CHF_2$ and $-CF_3$;

R_8 and R_9 are each independently selected from the group of -H, -C_{1-6} alkyl, -alkylsubstituted C_{1-6} alkyl, -SO_2R_3, -$SO_2NR_2R_2$ or -OH, -NR_2R_2, -$NR_2SO_2R_3$, -NR_2COR_3 and –$NR_2CONR_2R_2$;

with the proviso that only one of R_8 and R_9 can be selected from the group of -OH, -NR_2R_2, -$NR_2SO_2R_3$, -NR_2COR_3 and –$NR_2CONR_2R_2$; and

R_{10} and R_{11} are each independently selected from the group of -H, -C_{1-6} alkyl, -alkylsubstituted C_{1-6} alkyl, -C_{1-3} alkylaryl, C_{1-3}alkylheteroaryl, -CO_2R_2 and -SO_2R_3; with the proviso that only one of R_{10} and R_{11} can be selected from the group of -CO_2R_2 or -SO_2R_3.

2. The compound of claim 1, wherein said compound has the Formula I.

3. The compound of claim 2, wherein X is -phenyl or -C_{4-8} cycloalkenyl.

4. The compound of claim 3, wherein A is –H.

5. The compound of claim 1, wherein R_5 is –H.

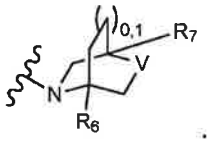
6. The compound of claim 1, wherein Y is –$COOR_2$.

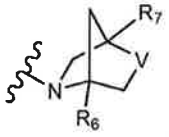
7. The compound of claim 6, wherein Y is –COOH.

8. The compound of claim 1, wherein R_{10} is –C_{1-3} alkylaryl.

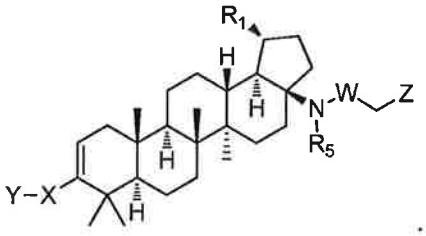
9. The compound of claim 8, wherein said alkylaryl is alkylphenyl.

10. The compound of claim 9, wherein alkyl is methyl.

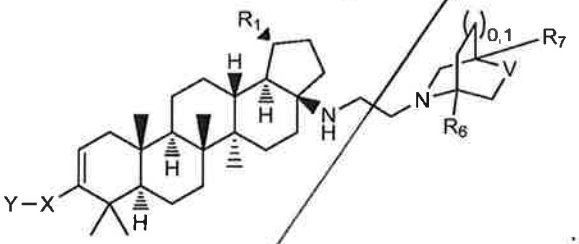
11. The compound of claim 1, wherein Z is .

12. The compound of claim 6, wherein Z is , and further wherein R_6 is –H and R_7 is -H.

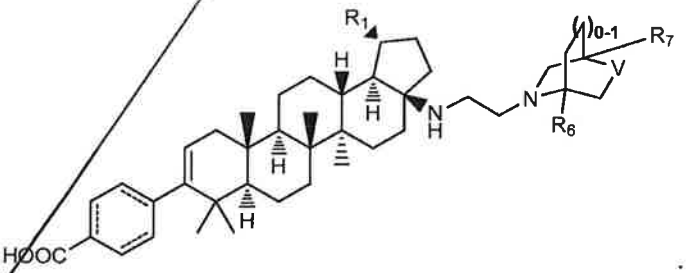
13. The compound of claim 1, having the formula:



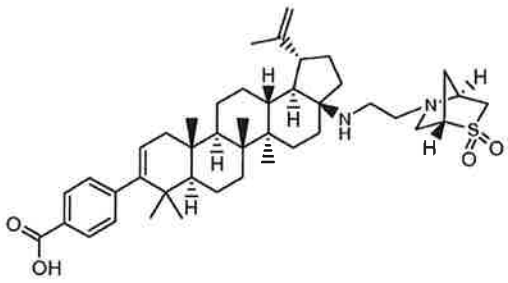
14. The compound of claim 1, having the formula:



15. The compound of claim 1, having the formula:



16. A compound, including pharmaceutically acceptable salts thereof, which is selected from the group of: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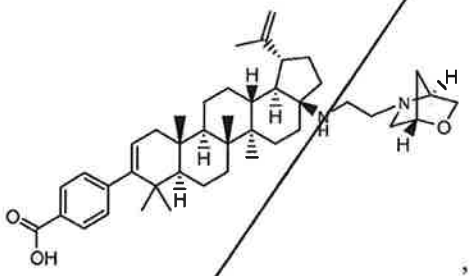
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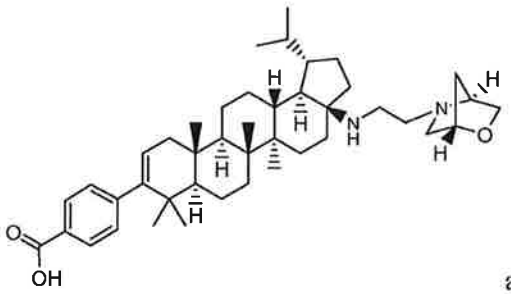
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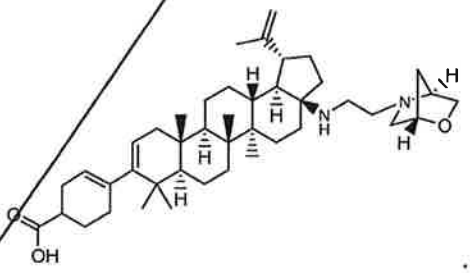
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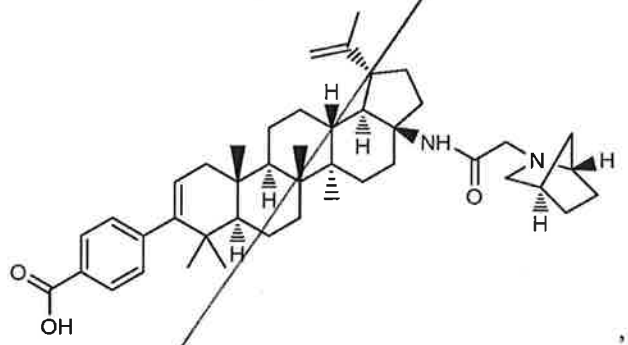
17. A compound, including pharmaceutically acceptable salts thereof, which is selected from the group of: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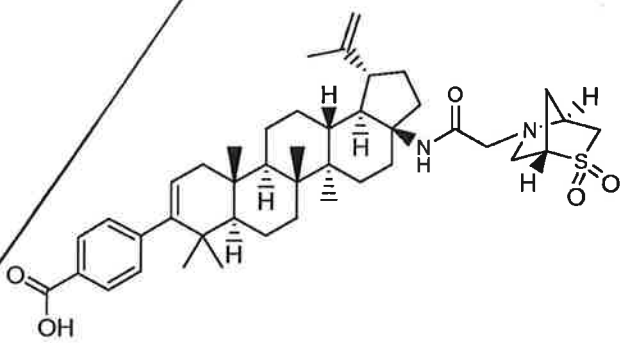
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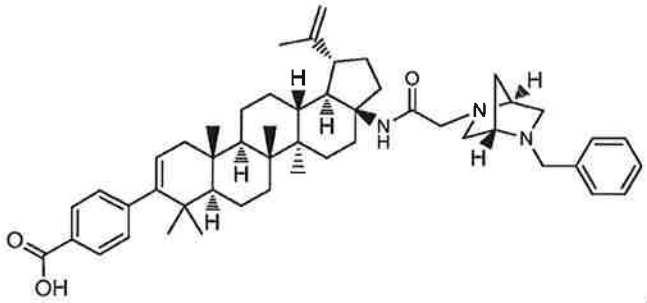

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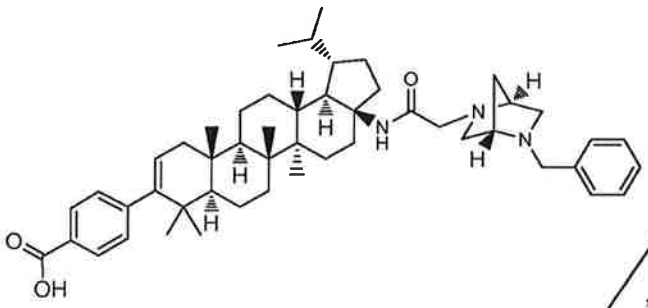

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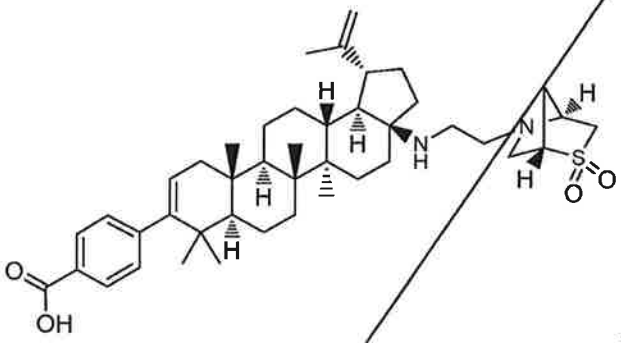

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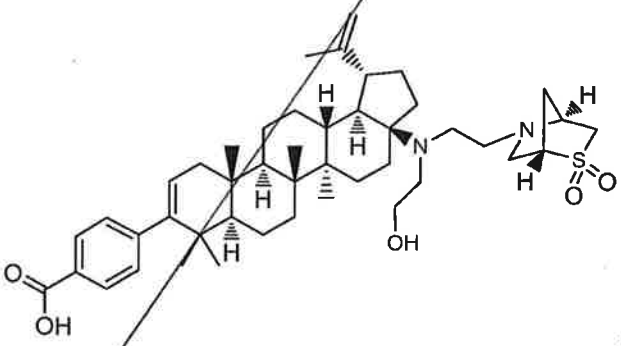

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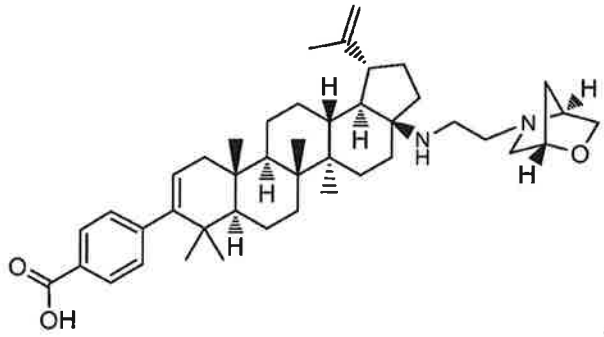

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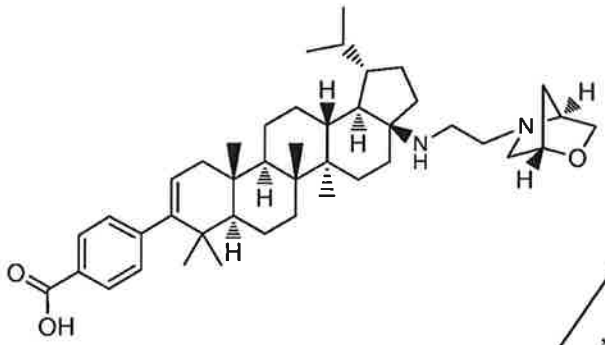

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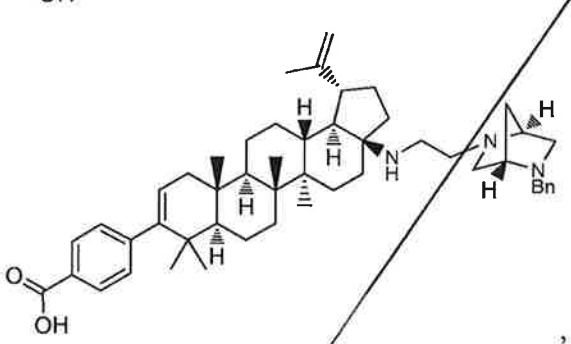

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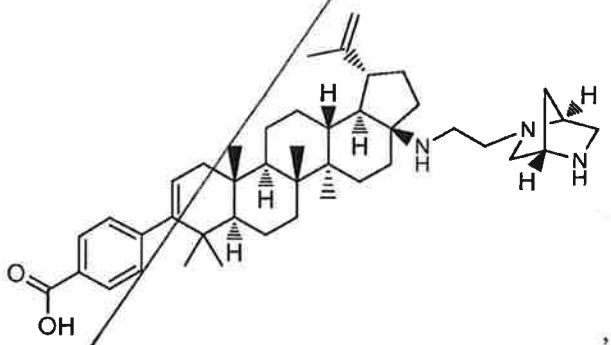

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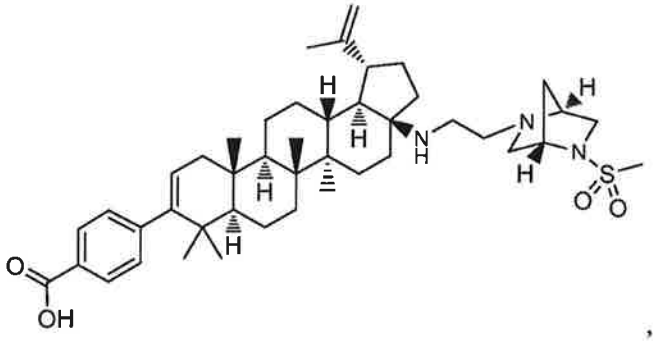

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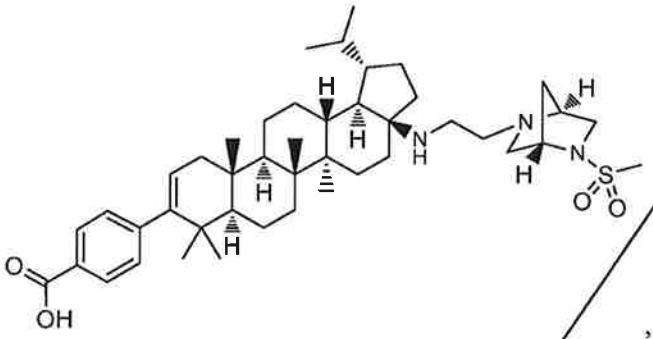

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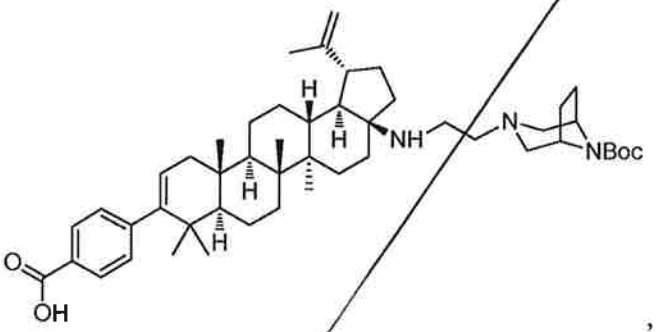

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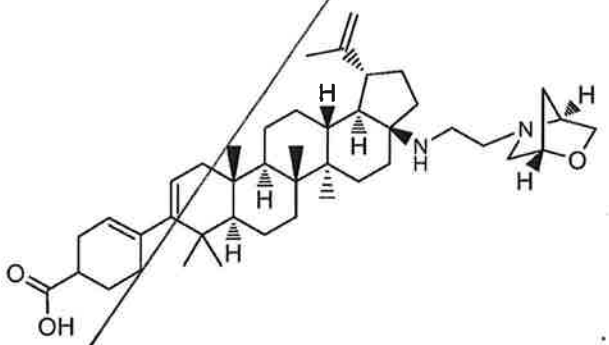

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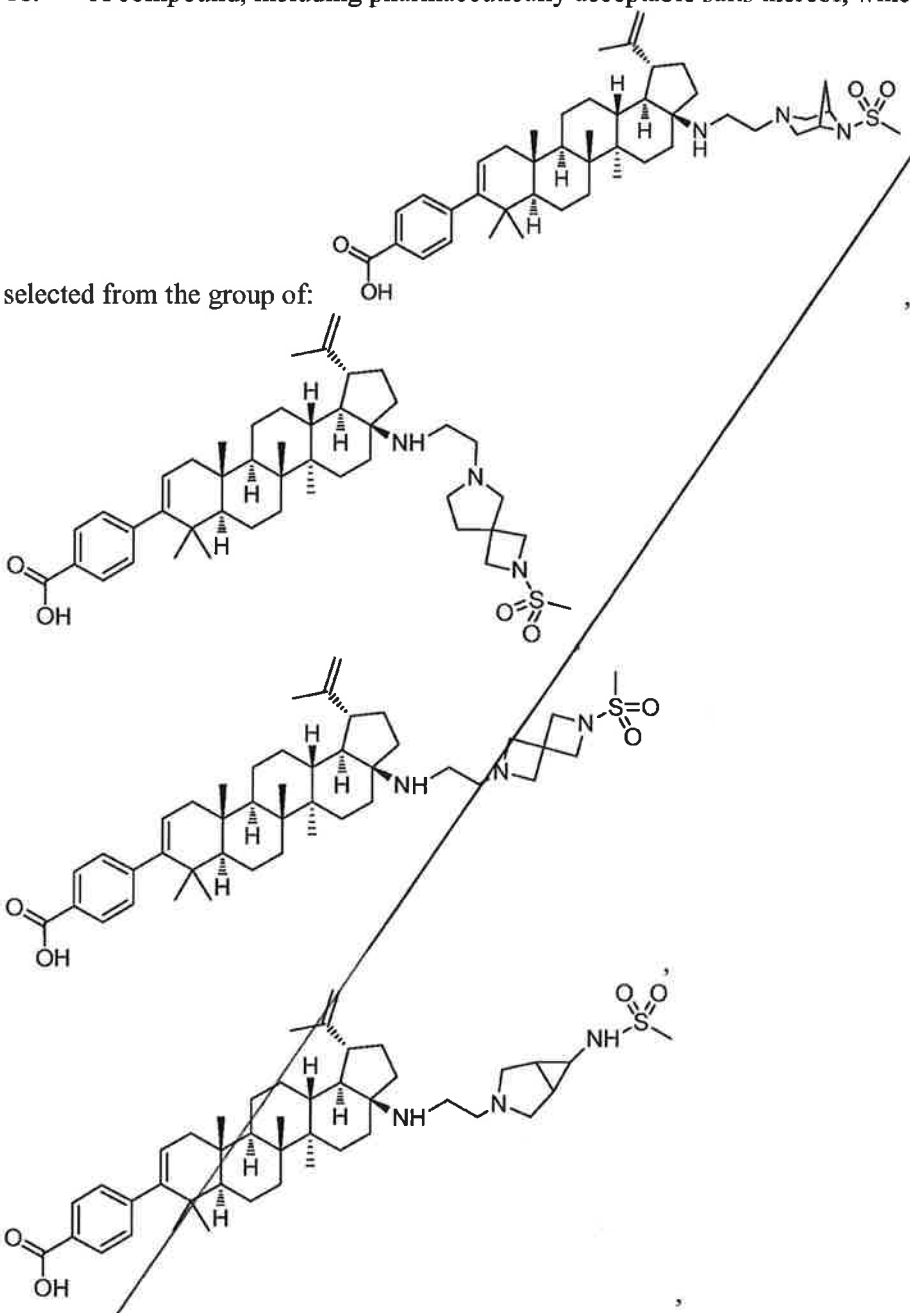
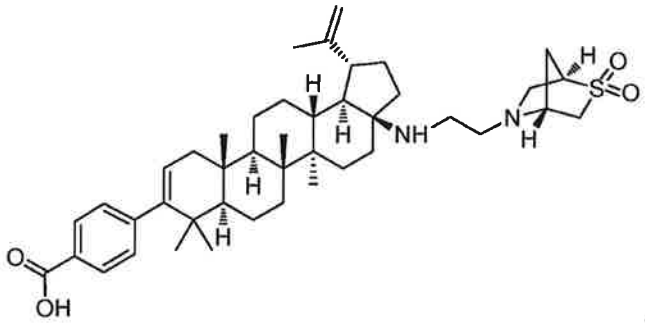
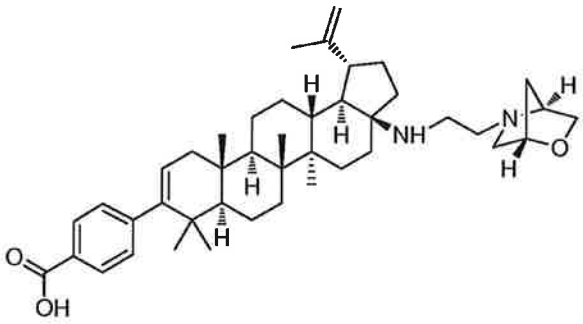
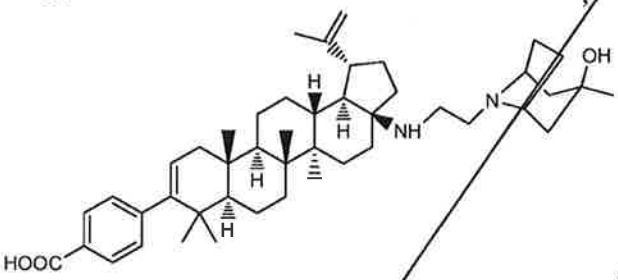
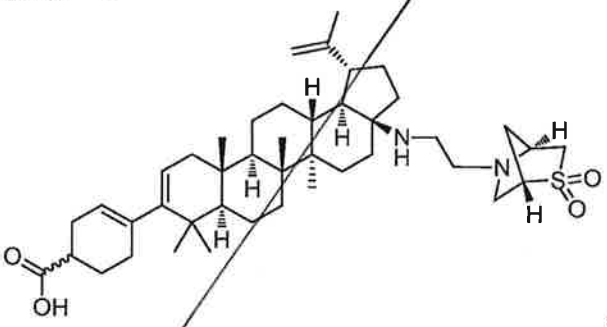
18. A compound, including pharmaceutically acceptable salts thereof, which is selected from the group of:

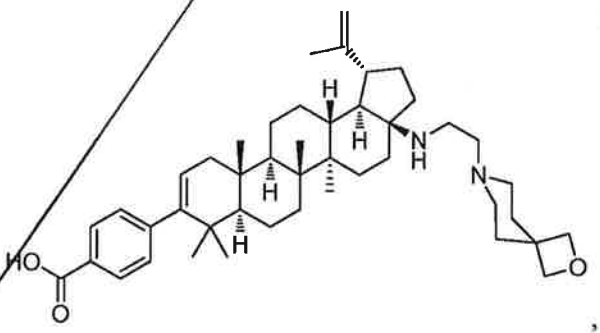


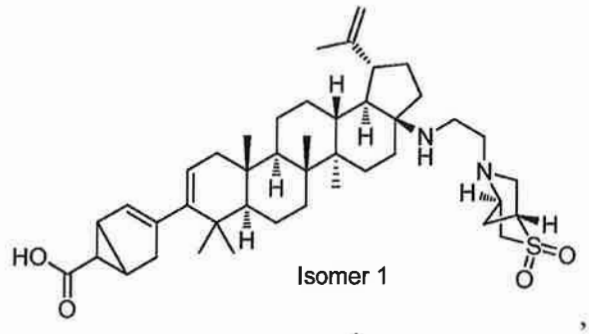




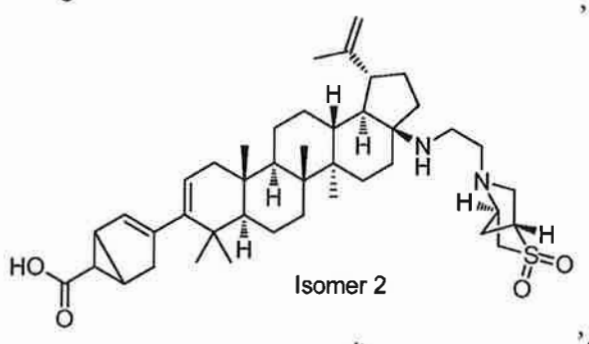




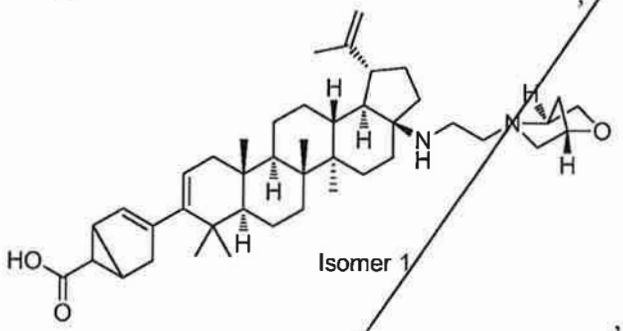




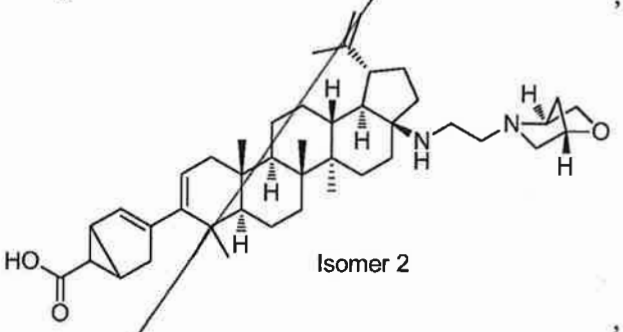
Isomer 1



Isomer 2



Isomer 1



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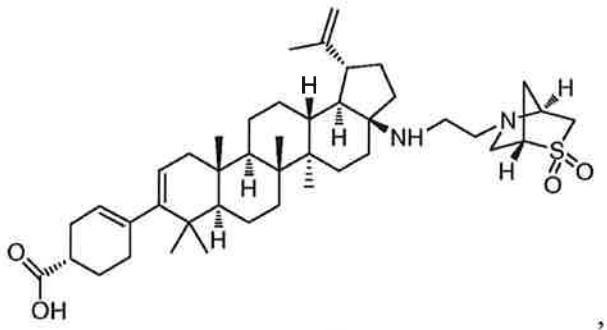

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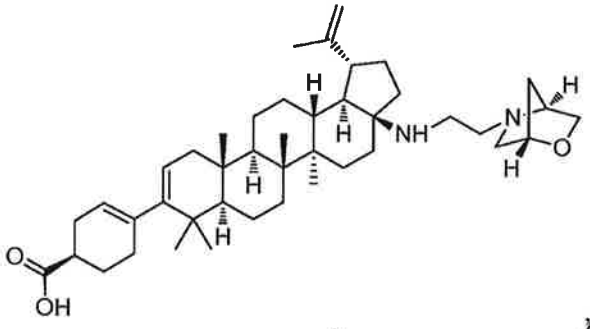

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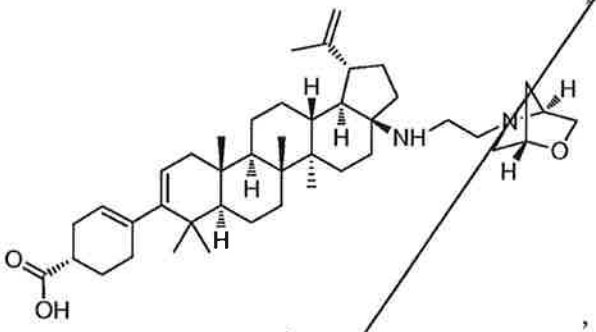

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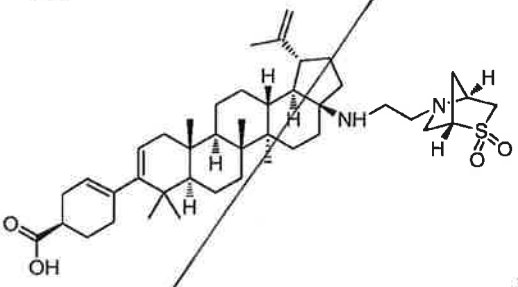

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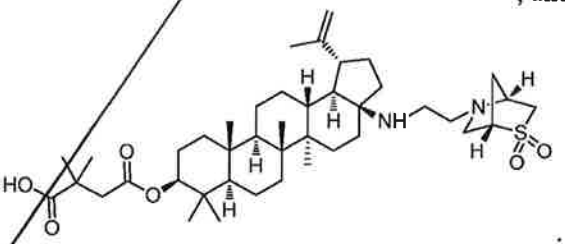

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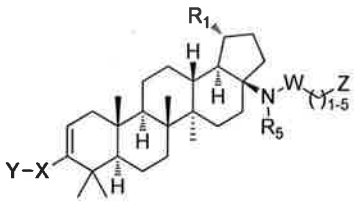
CLAIMS

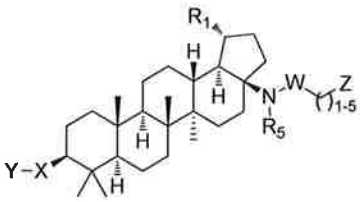
1. A compound which is selected from the group consisting of:

a compound of Formula I



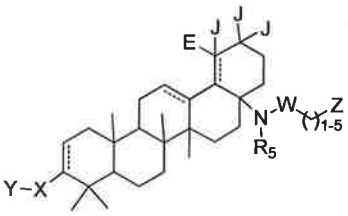
Formula I ;

a compound of Formula II



Formula II ; and

a compound of Formula III



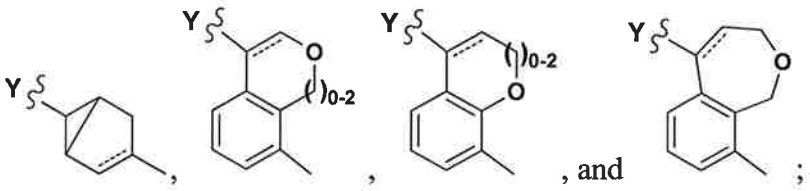
Formula III ;

wherein R_1 is isopropenyl or isopropyl;

J and E are each independently –H or $–CH_3$, and E is absent when the double bond is present;

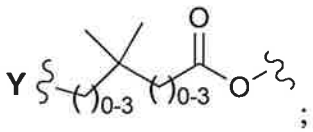
X is selected from the group of phenyl, heteroaryl ring, C_{4-8} cycloalkyl, C_{4-8} cycloalkenyl, C_{4-9} spirocycloalkyl, C_{4-9} spirocycloalkenyl, C_{4-8} oxacycloalkyl, C_{4-8} dioxacycloalkyl, C_{6-8} oxacycloalkenyl, C_{6-8} dioxacycloalkenyl, C_6 cyclodialkenyl, C_6 oxacyclodialkenyl, C_{6-9} oxaspirocycloalkyl and C_{6-9} oxaspirocycloalkenyl ring;

X is also selected from the group of:



, and ;

and for compounds of formula II and III, X is also selected from



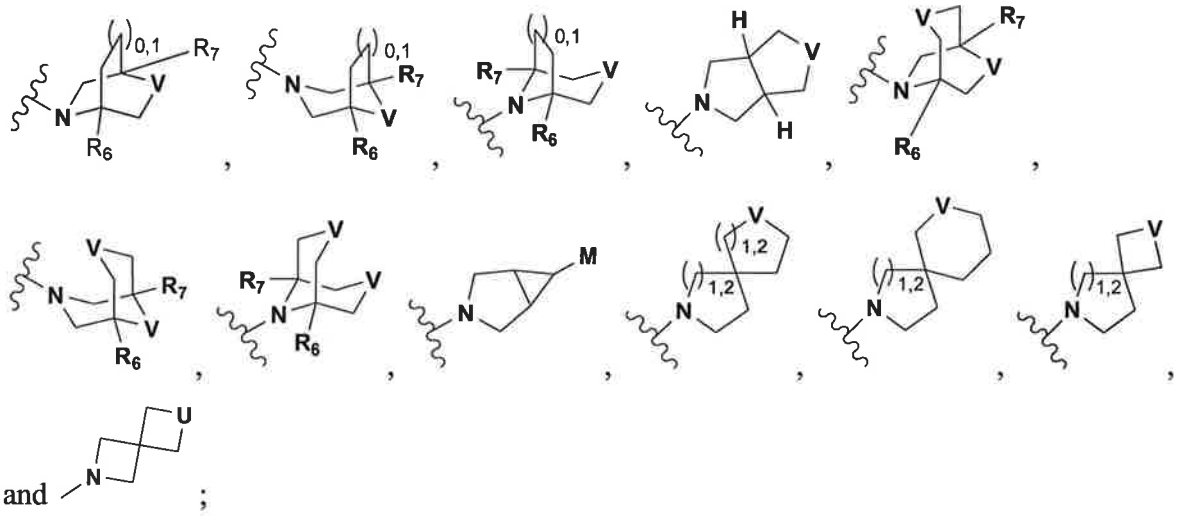
;

wherein X is substituted with A, and A is at least one member selected from the group of -H, -halo, -hydroxyl, -C_{1-6} alkyl, -C_{1-6} alkoxy, -C_{1-6} haloalkyl, -NR_2R_2, -$COOR_2$, -$C(O)NR_2R_2$, -$C(O)NR_2SO_2R_3$, -$SO_2NR_2R_2$, -$NR_2SO_2R_2$, -$SO_2NR_2R_2$, -C_{1-6} cycloalkyl-$COOR_2$, -C_{2-6} alkenyl-$COOR_2$, -C_{2-6} alkynyl-$COOR_2$, -C_{1-6} alkyl-$COOR_2$, -$NHC(O)(CH_2)_n$-$COOR_2$, -$SO_2NR_2C(O)R_2$, -tetrazole, and -bicyclic heteroaryl-$COOR_2$;

Y is selected from the group of -$COOR_2$, -$C(O)NR_2SO_2R_3$, - $C(O)NHSO_2NR_2R_2$, -$NR_2SO_2R_3$, -$SO_2NR_2R_2$, -C_{3-6} cycloalkyl-$COOR_2$, -C_{2-6} alkenyl-$COOR_2$, -C_{2-6} alkynyl-$COOR_2$, -C_{1-6} alkyl-$COOR_2$, -$NHC(O)(CH_2)_n$-$COOR_2$, -$SO_2NR_2C(O)R_2$, tetrazole, and –CONHOH, wherein n=1-6;

W is -CH_2 or –CO;

Z is selected from the group of:



and ;

V is selected from the group of $-CR_8R_9-$, $-SO_2-$, -O- and $-NR_{10}-$;

U is selected from the group of $-CR_8R_9-$, $-SO_2-$ and $-NR_{10}-$;

M is selected from the group of $-CHR_8R_9$, $-SO_2R_4$, $-SO_2NR_3R_3$, -OH and $-NR_{10}\ R_{11}-$;

R_2 is -H, $-C_{1-6}$ alkyl, -alkylsubstituted C_{1-6} alkyl or -arylsubstituted C_{1-6} alkyl;

R_3 is $-C_{1-6}$ alkyl or -alkylsubstituted C_{1-6} alkyl;

R_4 is selected from the group of $-C_{1-6}$ alkyl, -alkylsubstituted C_{1-6} alkyl, - C_{3-6} cycloalkl, -aryl and -heteroaryl;

R_5 is selected from the group of –H, $-C_{1-6}$ alkyl, -alkylsubstituted C_{1-6} alkyl and $-C_{1-6}$ alkyl-OH;

R_6 and R_7 are each independently selected from the group of -H, $-C_{1-6}$ alkyl, -alkylsubstituted C_{1-6} alkyl, $-CO_2R_2$, $-CH_2OH$, $-CHF_2$ and $-CF_3$;

R_8 and R_9 are each independently selected from the group of -H, -C_{1-6} alkyl, -alkylsubstituted C_{1-6} alkyl, -SO_2R_3, -$SO_2NR_2R_2$ or -OH, -NR_2R_2, -$NR_2SO_2R_3$, -NR_2COR_3 and –$NR_2CONR_2R_2$;

with the proviso that only one of R_8 and R_9 is selected from the group of -OH, -NR_2R_2, -$NR_2SO_2R_3$, -NR_2COR_3 and –$NR_2CONR_2R_2$; and

R_{10} and R_{11} are each independently selected from the group of -H, -C_{1-6} alkyl, -alkylsubstituted C_{1-6} alkyl, -C_{1-3} alkylaryl, C_{1-3}alkylheteroaryl, -CO_2R_2 and -SO_2R_3;
with the proviso that only one of R_{10} and R_{11} is selected from the group of -CO_2R_2 and -SO_2R_3; and pharmaceutically acceptable salts thereof.

2. The compound of claim 1, wherein said compound is of the Formula I.

3. The compound of claim 2, wherein X is -phenyl or -C_{4-8} cycloalkenyl.

4. The compound of claim 3, wherein A is –H.

5. The compound of claim 1, wherein R_5 is –H.

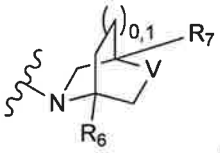
6. The compound of claim 1, wherein Y is –$COOR_2$.

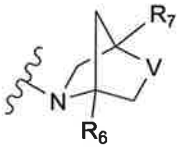
7. The compound of claim 6, wherein Y is –COOH.

8. The compound of claim 1, wherein R_{10} is –C_{1-3} alkylaryl.

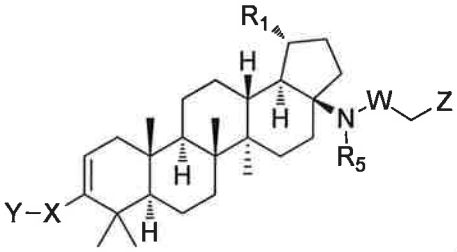
9. The compound of claim 8, wherein said alkylaryl is alkylphenyl.

10. The compound of claim 9, wherein alkyl is methyl.

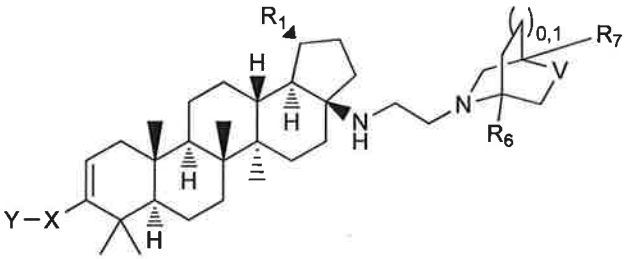
11. The compound of claim 1, wherein Z is .

12. The compound of claim 6, wherein Z is , and further wherein R_6 is –H and R_7 is -H.

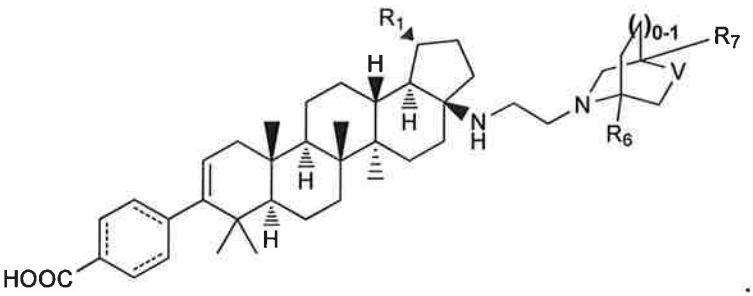
13. The compound of claim 1 of the formula:



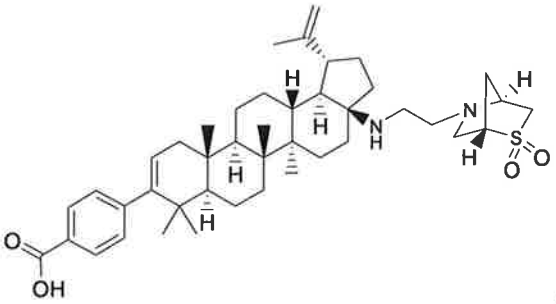
14. The compound of claim 1 of the formula:



15. The compound of claim 1 of the formula:



16. A compound which is selected from the group consisting of: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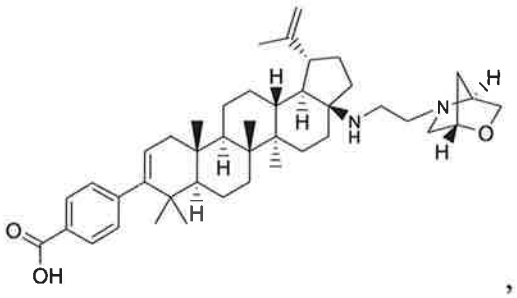
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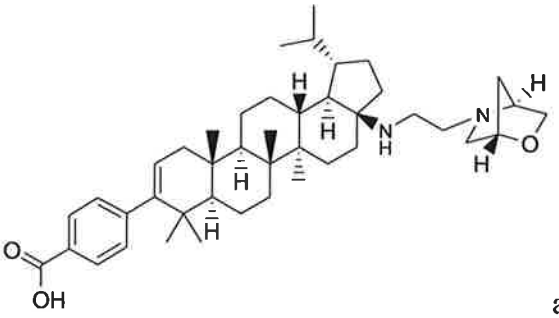
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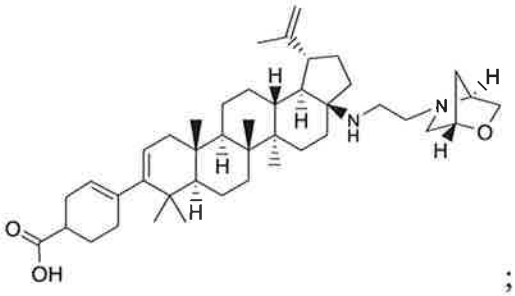
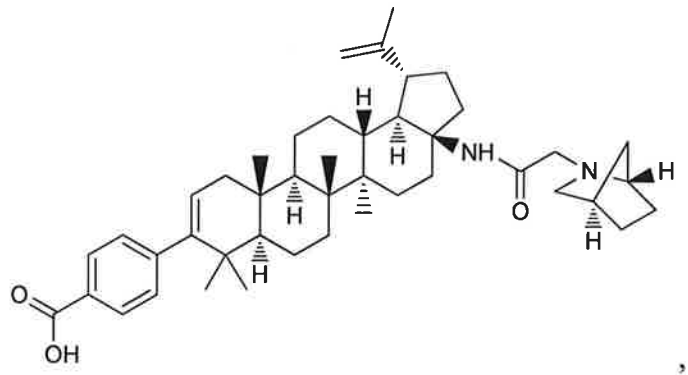

;

and pharmaceutically acceptable salts thereof.

17. A compound which is selected from the group consisting of:



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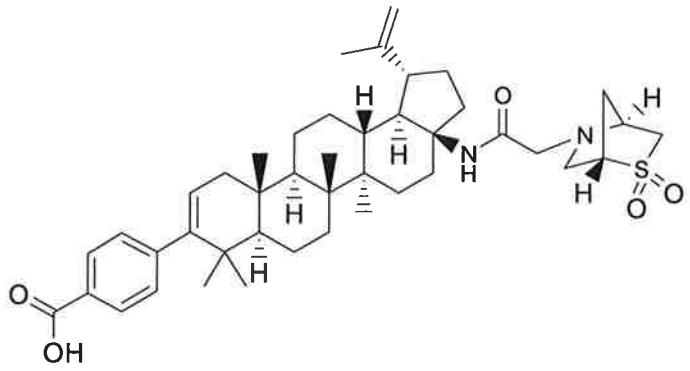

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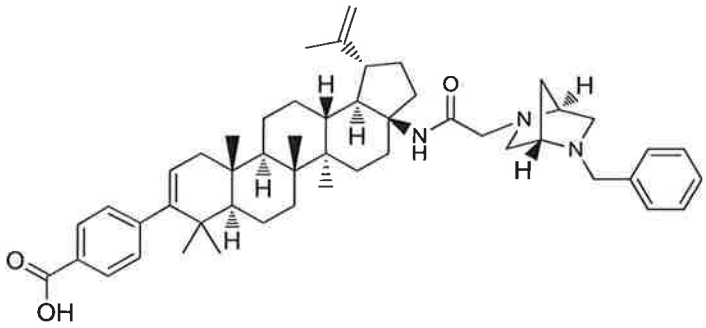

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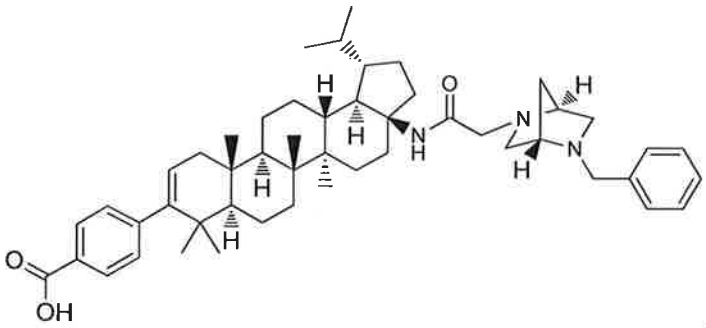

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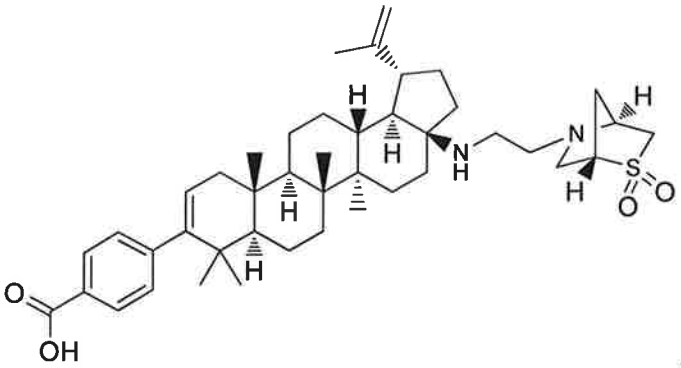

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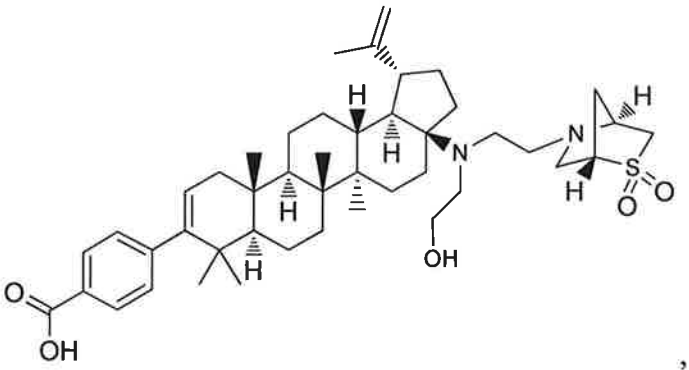

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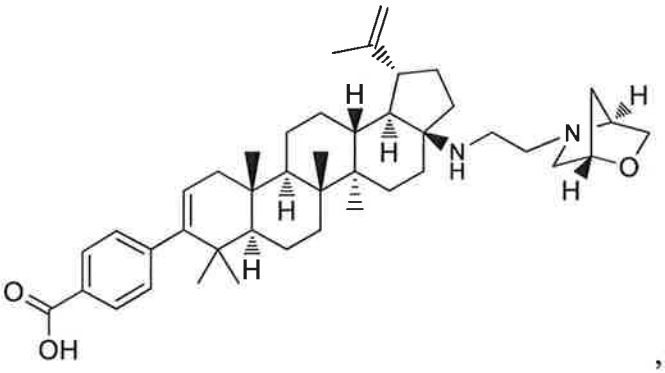

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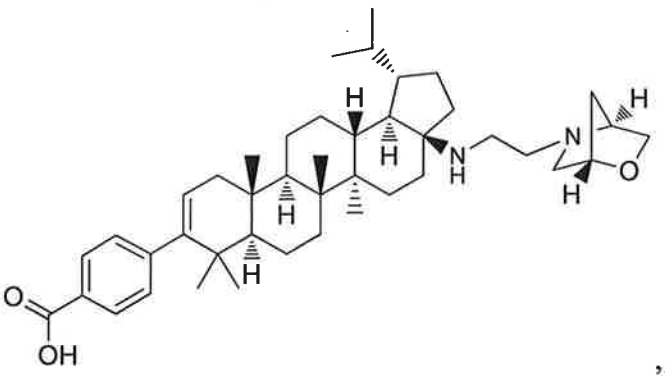

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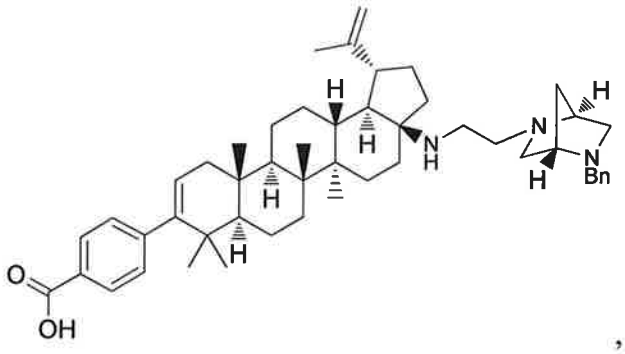

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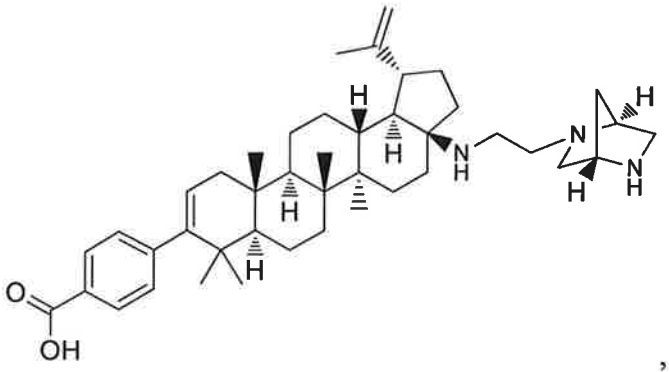

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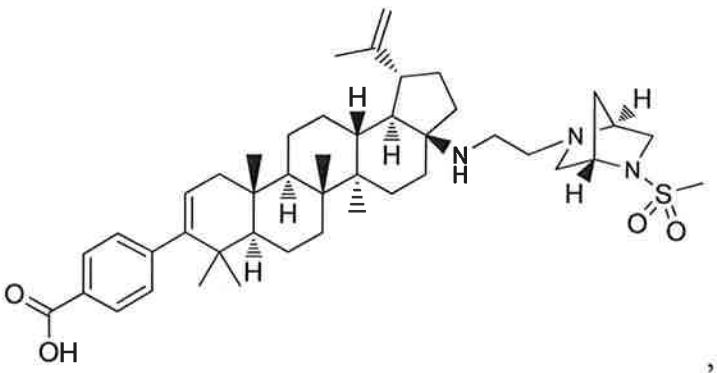

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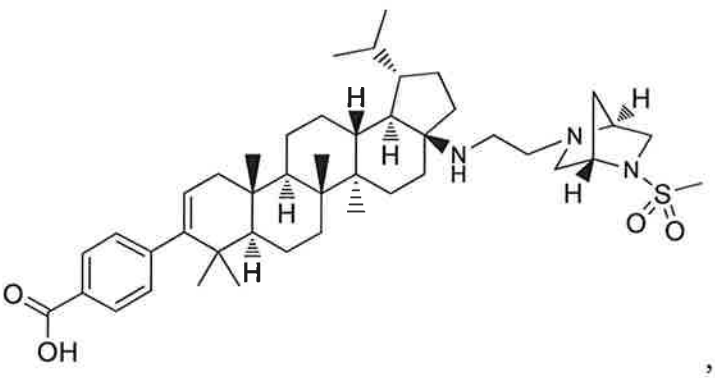

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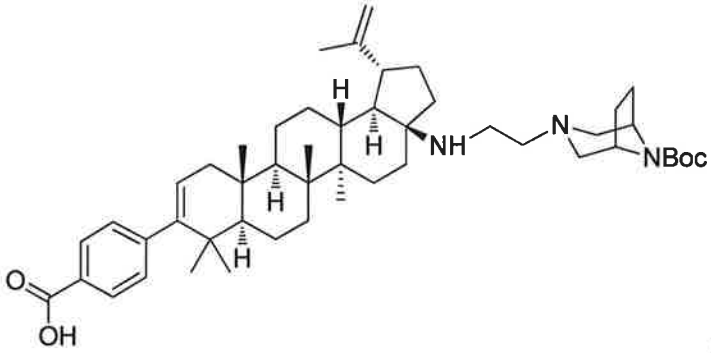

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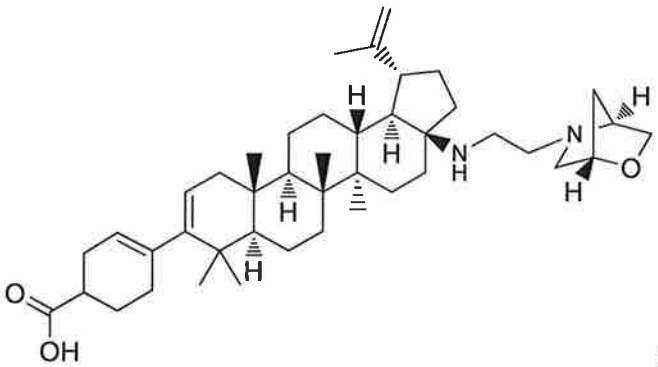
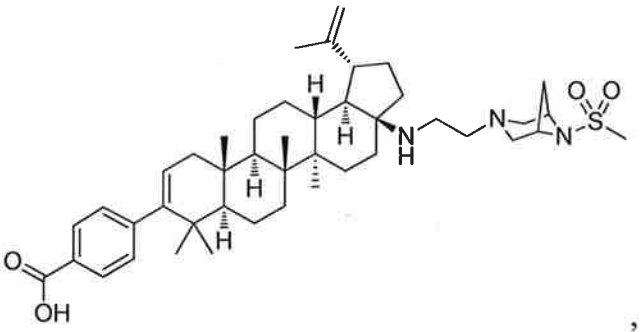


;

and pharmaceutically acceptable salts thereof.

18. A compound which is selected from the group consisting of:



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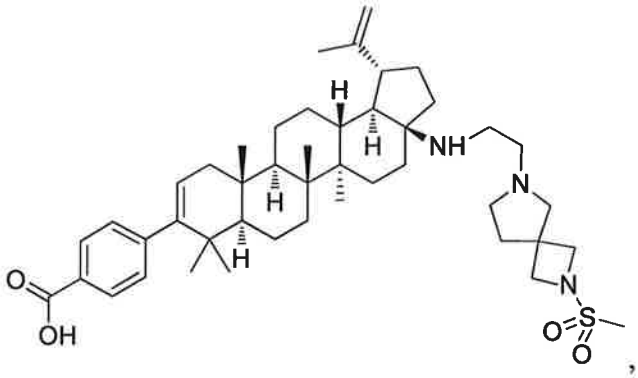
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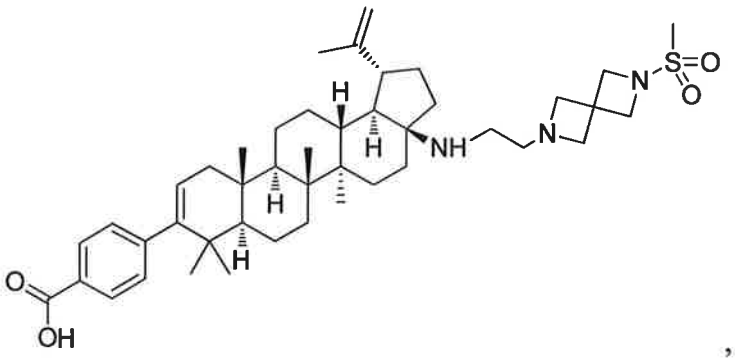
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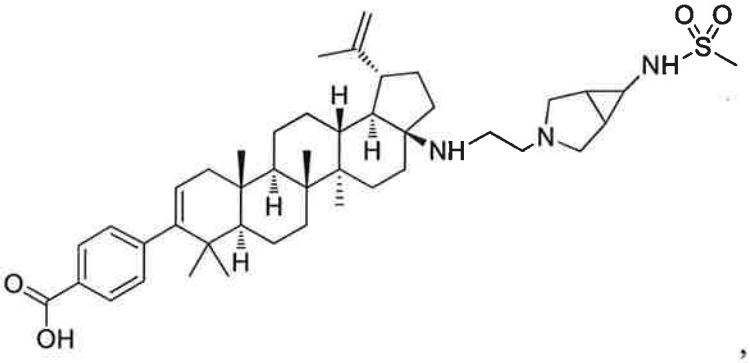
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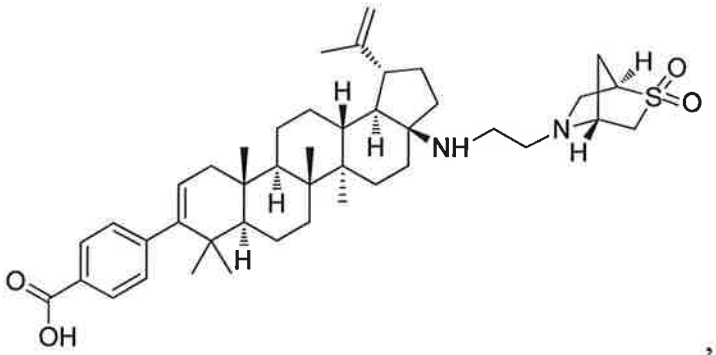
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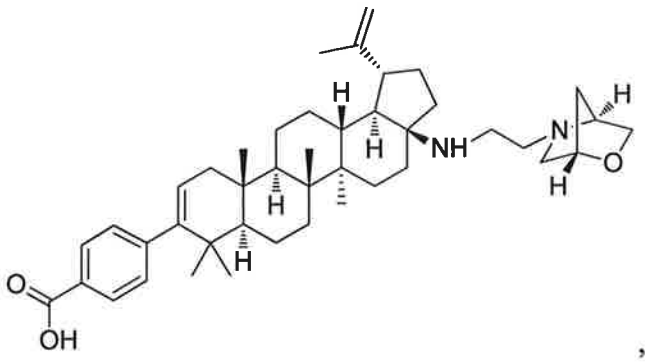

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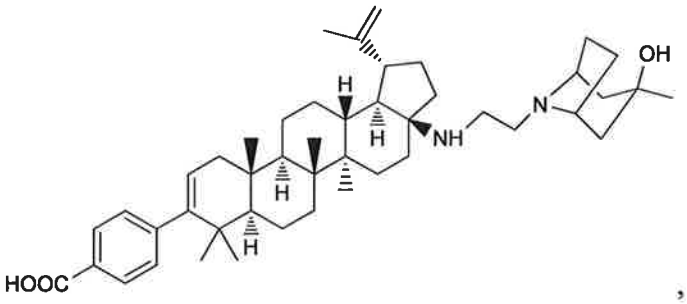

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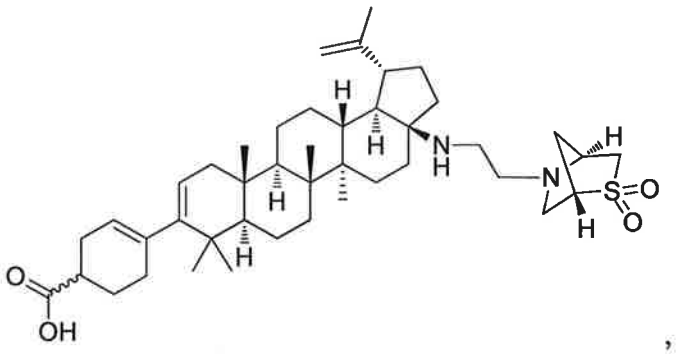

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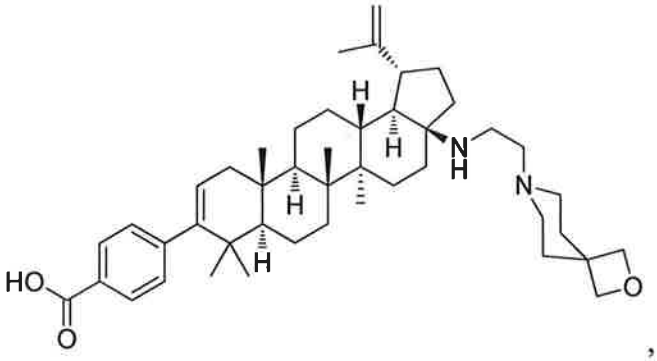

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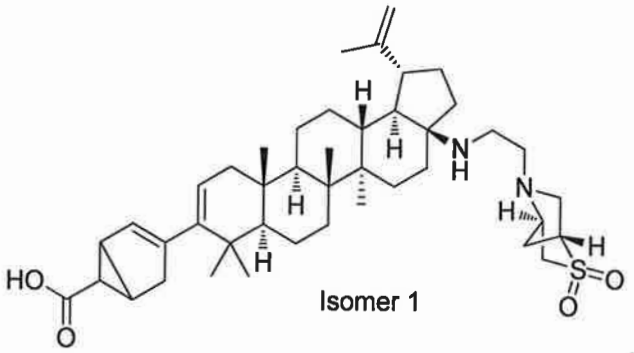

Isomer 1

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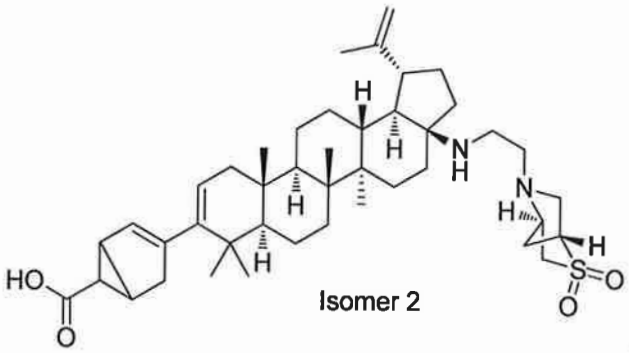

Isomer 2

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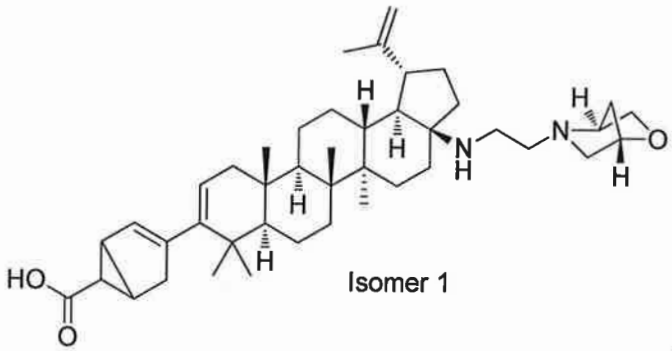

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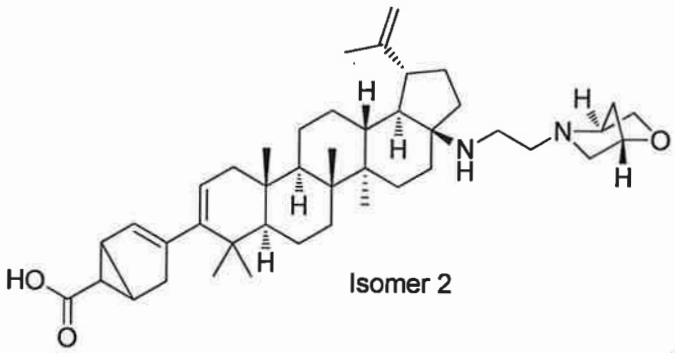

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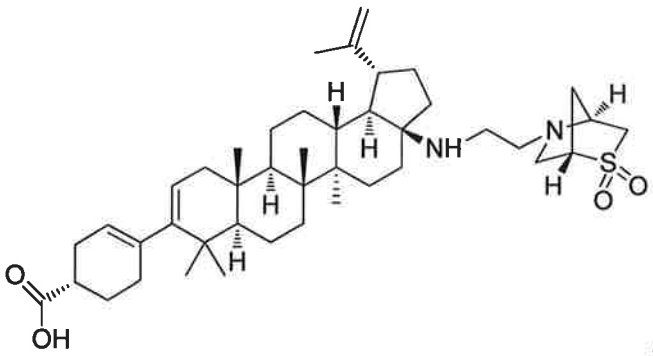
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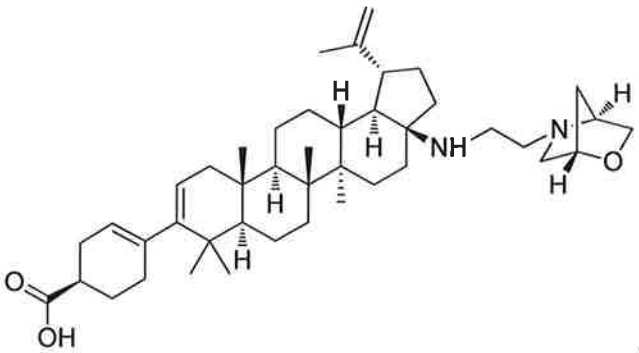
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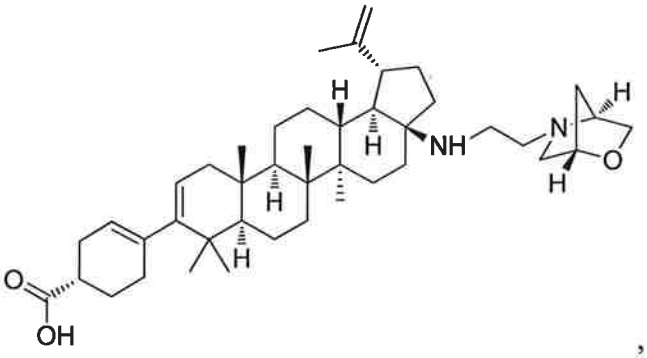
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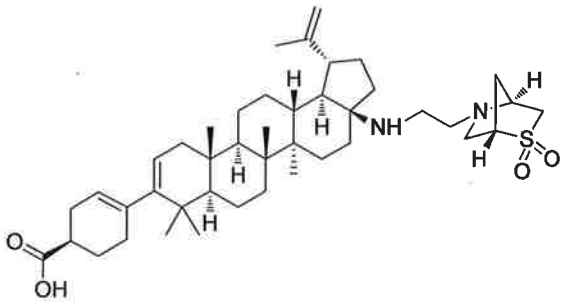
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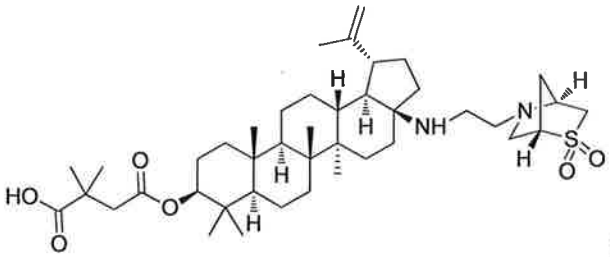
, and ;

and pharmaceutically acceptable salts thereof.