To an ice cold solution of above obtained compound (16.8 grams, 37.1 mmol) in dry tetrahydrofuran (104 mL) was added tetrabutylammonium fluoride (1M, in tetrahydrofuran 37.1 mL) over a period of 10 minutes. The reaction mixture was gradually warmed to room temperature and stirred for 12 hours. The volatiles were removed under reduced pressure to obtain a crude product, which was purified by flash column chromatography to obtain title compound of 7.0 grams as gummy liquid. Yield: 88.6 %.

IR (cm^{-1}): 3417, 2976, 2878, 1694, 1669, 1403, 1255, 1175, 1133, 1085, 773;

^{1}H-NMR ($CDCl_3$): 4.90 (bs, 1H), 3.75-3.65 (m, 1H), 3.63-3.55 (m, 2H), 3.27 (ddd, J = 2.3, 6.2, 8.5 Hz, 1H), 2.16 (dd, J = 8.3, 13.1 Hz, 1H), 1.82-1.70 (m, 1H), 1.52-1.44 (m, 1H), 1.49 (s, 9H), 0.78-0.68 (m, 1H), 0.43-0.35 (m, 1H);

Mass (m/z): 214 [$M+H^+$].

Example 1: Preparation of 3-(Pyridin-3-yloxymethyl)-2-azabicyclo[3.1.0]hexane dihydrochloride

Step (i): Preparation of 3-(pyridine-3-yloxymethyl)-2-azabicyclo[3.1.0]hexane-2-carboxylic acid tert-butyl ester

To an ice cold solution of triphenylphosphine (1.66 grams, 6.4 mmol) in dry tetrahydrofuran (7 mL) was added diethyl azodicarboxylate (1.0 mL, 6.4 mmol). The mixture was warmed to room temperature and stirred for 30 minutes. The reaction mixture was cooled to 0 °C and a solution of 3-Hydroxymethyl-2-azabicyclo [3.1.0] hexane-2-carboxylic acid tert-butyl ester (obtained in step (vii) of preparation 1) (0.9 grams, 4.2 mmol) in dry tetrahydrofuran (7 mL) was added followed by a solution of 3-hydroxypyridine (0.6 grams, 6.4 mmol) in dry tetrahydrofuran (14 mL). The reaction mixture was gradually warmed to room temperature and stirred for 16 hours. The volatiles were evaporated under reduced pressure and crude obtained was purified by flash column chromatography using 230-400 mesh silica gel to obtain title compound 0.83 grams as gummy liquid. Yield: 68 %.

IR (cm^{-1}): 2977, 2933, 2876, 1694, 1575, 1476, 1392, 1257, 1231, 1174, 1134, 1023, 801, 759, 707;

^{1}H-NMR ($CDCl_3$): 8.32 (d, J = 2.6 Hz, 1H), 8.21 (d, J = 4 Hz, 1H), 7.24-7.15 (m, 2H), 4.28-4.15 (m, 2H), 4.10-3.95 (m, 2H), 2.28 (ddd, J = 3.6, 6.8, 13.4 Hz, 1H), 2.12 (dd, J = 7.8, 13.4 Hz, 1H), 1.49-1.40 (m, 1H), 1.47 (s, 9H), 0.92-0.80 (m, 1H), 0.41-0.35 (m, 1H);

Mass (m/z): 291 [M+H$^+$].

Step (ii): Preparation of 3-(Pyridin-3-yloxymethyl)-2-azabicyclo[3.1.0]hexane dihydrochloride

To an ice-cold solution of above obtained compound (1 mmol) in dichloromethane (1 mL) was added trifluoroacetic acid (1 mL) and the reaction mixture was stirred for 2 hours. The volatiles were removed under reduced pressure. The crude product was treated with cold dry hydrochloride (3M) in isopropropanol (2 mL). The solvent was removed under reduced pressure and the residue was titrated with hexane and ether to obtain title compound (0.95 mmol) as dihydrochloride salt. Yield: 95 %.

IR (cm^{-1}): 3400, 2868, 2688, 2631, 2586, 2491, 1551, 1278, 1024, 827, 799, 676;

^{1}H-NMR (CD_3OD): 8.69 (d, J = 2.1 Hz, 1H), 8.55 (d, J = 4.0 Hz, 1H), 8.28 (dd, J = 2.1, 4.0 Hz, 1H), 8.05 (dd, J = 4.0, 8.0 Hz, 1H), 4.61 (dd, J = 3.0, 8.0 Hz, 1H), 4.44 (dd, J = 8.0, 9.2 Hz, 1H), 3.97-3.88 (m, 1H), 3.46-3.40 (m, 1H), 2.35 (dd, J = 8.0, 12.0 Hz, 1H), 2.22-2.12 (m, 1H), 2.0-1.92 (m, 1H), 1.13-1.08 (m, 1H), 1.0-0.92 (m, 1H);

Mass (m/z): 191 [M+H$^+$].

Example 2: Preparation of 2-Methyl-3-(pyridin-3-yloxymethyl)-2-azabicyclo[3.1.0]hexane

To a stirred solution of above obtained compound (1 mmol) in formic acid (1 mL) was added formaldehyde (40 % w/v, 2 mL) and the reaction mixture was stirred at 80 °C for 3 hours. The reaction mixture was cooled to room temperature and pH was adjusted between 8-9 by addition of saturated aqueous potassium carbonate. The aqueous layer was extracted with dichloromethane, the combined organic layer was dried over anhydrous sodium sulphate and the solvent was removed under reduced pressure to obtain crude product which was purified by 230-400 silica gel flash column chromatography to obtain title compound (0.7-0.9 mmol). Yield: 90 %.

IR (cm^{-1}): 2942, 2854, 1674, 1574, 1475, 1425, 1277, 1230, 1050, 1024, 800, 756, 706;

^{1}H-NMR ($CDCl_3$): 8.30 (d, J = 2.1 Hz, 1H), 8.21 (dd, J = 1.5, 4.0 Hz, 1H), 7.20-7.10 (m, 2H), 3.98 (dd, J = 5.0, 9.2 Hz, 1H), 3.89 (dd, J = 5.5, 9.2 Hz, 1H), 2.80 (ddd, J = 2.5, 5.8, 8.4 Hz, 1H), 2.47 (s, 3H), 2.47-2.40 (m, 1H), 2.20 (dd, J = 7.2, 12.5 Hz, 1H), 1.92 (ddd, J = 5.0, 10.0, 17.1 Hz, 1H), 1.46-1.40 (m, 1H), 0.66-0.62 (m, 1H), 0.20-0.11 (m, 1H);

Mass (m/z): 205 [M+H$^+$].

Examples 3 - 20:

The compounds of Examples 3-20 were prepared by following the procedures as described in Examples 1 to 2, with some non-critical variations.

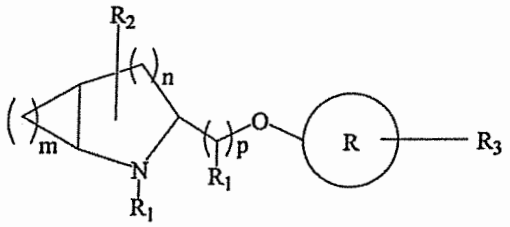
3.	3-(2-Methylpyridin-3-yl-oxymethyl)-2-azabicyclo[3.1.0]hexane ~~di~~hydrochloride;	IR (cm^{-1}): 2946, 2535, 2110, 1669, 1627, 1570, 1414, 1294, 1205, 1179, 1130, 1031, 798, 719; ^{1}H-NMR (CD_3OD): 8.21 (d, J = 5.0 Hz, 1H), 7.85 (d, J = 8.4 Hz, 1H), 7.63 (dd, J = 5.5, 8.3 HZ, 1H), 4.52 (dd, J = 3.3, 10.7 Hz, 1H), 4.25 (dd, J = 9.1, 10.7 Hz, 1H), 3.95-3.85 (m, 1H), 3.45-3.97 (m, 1H), 2.61 (s, 3H), 2.40 (dd, J = 7.2, 13 Hz, 1H), 2.20-2.10 (m, 1H), 2.0-1.92 (m, 1H), 1.10-1.02 (m, 1H), 1.0-0.90 (m, 1H); Mass (m/z): 205 [$M+H^+$].
4.	3-(2-Chloropyridin-3-yloxymethyl)-2-azabicyclo[3.1.0]hexane ~~di~~hydrochloride;	IR (cm^{-1}): 3411, 3029, 2870, 2481, 1533, 1452, 1334, 1296, 1025, 999, 846, 827, 807, 721; ^{1}H-NMR (D_2O): 7.88 (d, J = 4.3 Hz, 1H), 7.42 (d, J = 8.1 Hz, 1H), 7.29 (dd, J = 4.7, 8.1 Hz, 1H), 4.44 (dd, J = 3.2, 10.8 Hz, 1H), 4.10 (dd, J = 8.5, 10.8 Hz, 1H), 3.85-3.75 (m, 1H), 3.30-3.23 (m, 1H), 2.25 (dd, J = 7.2, 13.0 Hz, 1H), 2.05 (ddd, J = 4.8, 13.0, 16.0 Hz, 1H), 1.85-1.78 (m, 1H), 0.90-0.85 (m, 1H), 0.85-0.75 (m, 1H); Mass (m/z): 225, 277 [$M+H^+$].
5.	3-(2-Chloropyridin-5-yloxymethyl)-2-azabicyclo[3.1.0]hexane hydrochloride;	IR (cm^{-1}): 3463, 2887, 2814, 2734, 2586, 2495, 1585, 1526, 1455, 1310, 1281, 1024, 846, 825, 697, 624; ^{1}H-NMR (D_2O): 7.94 (d, J = 2.7 Hz, 1H), 7.35 (dd, J = 2.7, 8.8 Hz, 1H), 7.30 (d, J = 8.8 Hz, 1H), 4.32 (dd, J = 3.2, 10.8 Hz, 1H), 4.10 (dd, J = 7.6, 10.8 Hz, 1H), 3.75-3.65 (m, 1H), 3.28-3.20 (m, 1H), 2.21 (dd, J = 7.2, 13.1 Hz, 1H), 2.05 (ddd, J = 4.8, 11.6, 16.0 Hz, 1H), 1.85-1.75 (m, 1H), 0.90-0.85 (m, 1H), 0.83-0.74 (m, 1H); Mass (m/z): 225, 227 [$M+H^+$].

6.	3-(2-Fluoropyridin-5-yloxymethyl)-2-azabicyclo[3.1.0]hexane ~~di~~hydrochloride;	IR (cm^{-1}): 3050, 2934, 2717, 2575, 2487, 2453, 1609, 1586, 1492, 1384, 1290, 1244, 1032, 777; ^{1}H-NMR (D_2O): 7.73 (s, 1H), 7.48 (ddd, J = 3.2, 6.4, 9.2 Hz, 1H), 6.95 (dd, J = 2.4, 9.2 Hz, 1H), 4.31 (dd, J = 3.2, 10.8 Hz, 1H), 4.08 (dd, J = 7.6, 10.8 Hz, 1H), 3.77-3.69 (m, 1H), 3.28-3.21 (m, 1H), 2.20 (dd, J = 7.2, 13.0 Hz, 1H), 2.05 (ddd, J = 4.7, 11.2, 16.0 Hz, 1H), 1.76-1.69 (m, 1H), 0.94-0.88 (m, 1H), 0.87-0.78 (m, 1H); Mass (m/z): 209 [$M+H^+$].
7.	3-(5-Chloropyridin-3-yloxymethyl)-2-azabicyclo[3.1.0]hexane ~~di~~hydrochloride;	IR (cm^{-1}): 3373, 3022, 2924, 2666, 2615, 2070, 1614, 1552, 1439, 1290, 1040, 1005, 705, 669; ^{1}H-NMR (D_2O): 8.24 (s, 1H), 8.21 (s, 1H), 7.72 (s, 1H), 4.40 (dd, J = 3.2, 10.8 Hz, 1H), 4.16 (dd, J = 7.6, 10.8 Hz, 1H), 3.80-3.70 (m, 1H), 3.28-3.21 (m, 1H), 2.20 (dd, J = 7.2, 13.1 Hz, 1H), 2.05 (ddd, J = 4.9, 11.7, 16.2 Hz, 1H), 1.88-1.78 (m, 1H), 0.93-0.87 (m, 1H), 0.85-0.75 (m, 1H); Mass (m/z): 225, 227 [$M+H^+$].
8.	3-(5-Bromopyridin-3-yloxymethyl)-2-azabicyclo[3.1.0]hexane tartrate;	IR (cm^{-1}): 3346, 2996, 2924, 2474, 1546, 1433, 1259, 1035, 1010, 836, 665; ^{1}H-NMR (D_2O): 8.37 (s, 1H), 8.28 (s, 1H), 7.97 (s, 1H), 4.42 (dd, J = 2.8, 10.7 Hz, 1H), 4.20 (dd, J = 7.6, 10.7 Hz, 1H), 3.80-3.70 (m, 1H), 3.30-3.20 (m, 1H), 2.21 (dd, J = 7.2, 13.0 Hz, 1H), 2.10-2.0 (m, 1H), 1.88-1.78 (m, 1H), 0.95-0.88 (m, 1H), 0.87-0.77 (m, 1H); Mass (m/z): 269, 271 [$M+H^+$].

15.	3-(2-Fluoropyridin-5-yloxymethyl)-2-methyl-2-azabicyclo[3.1.0]hexane;	IR (cm^{-1}): 2966, 2943, 2398, 1604, 1587, 1485, 1392, 1241, 1052, 1038, 827, 803, 769; ^{1}H-NMR ($CDCl_3$): 7.80 (s, 1H), 7.38-7.30 (m, 1H), 6.84 (dd, J = 3.5, 8.8 Hz, 1H), 3.94 (dd, J = 5.0, 9.1 Hz, 1H), 3.88 (dd, J = 5.3, 9.1 Hz, 1H), 2.84-2.73 (m, 1H), 2.46 (s, 3H), 2.46-2.40 (m, 1H), 2.17 (dd, J = 7.2, 12.4 Hz, 1H), 1.98-1.88 (m, 1H), 1.46-1.38 (m, 1H), 0.68-0.60 (m, 1H), 0.20-0.11 (m, 1H); Mass (m/z): 223 [$M+H^+$].
16.	3-(5-Chloropyridin-3-yloxymethyl)-2-methyl-2-azabicyclo[3.1.0]hexane;	IR (cm^{-1}): 2951, 2867, 2623, 2549, 2094, 1619, 1552, 1436, 1291, 1022, 910, 874, 755, 697, 674; ^{1}H-NMR ($CDCl_3$): 8.19 (s, 1H), 8.18 (s, 1H), 7.20 (s, 1H), 3.95 (dd, J = 5.0, 9.2 Hz, 1H), 3.90 (dd, J = 5.3, 9.2 Hz, 1H), 2.86-2.78 (m, 1H), 2.45 (s, 3H), 2.45-2.40 (m, 1H), 2.17 (dd, J = 7.2, 12.4 Hz, 1H), 1.95-1.85 (m, 1H), 1.46-1.38 (m, 1H), 0.68-0.60 (m, 1H), 0.20-0.11 (m, 1H); Mass (m/z): 239, 241 [$M+H^+$].
17.	3-(5-Bromopyridin-3-yloxymethyl)-2-methyl-2-azabicyclo[3.1.0]hexane ~~di~~hydrochloride;	IR (cm^{-1}): 3445, 3010, 2928, 2625, 2522, 1542, 1435, 1285, 1027, 868, 671; ^{1}H-NMR ($CDCl_3$): 8.27 (s, 1H), 8.23 (s, 1H), 7.35 (s, 1H), 3.94 (dd, J = 5.0, 9.1 Hz, 1H), 3.89 (dd, J = 5.0, 9.0 Hz, 1H), 2.85-2.73 (m, 1H), 2.45 (s, 3H), 2.45-2.40 (m, 1H), 2.18 (dd, J = 7.2, 12.5 Hz, 1H), 1.95-1.85 (m, 1H), 1.65-1.55 (m, 1H), 0.70-0.60 (m, 1H), 0.20-0.12 (m, 1H); Mass (m/z): 283, 285 [$M+H^+$].
18.	3-(2-Methylpyridin-5-yloxymethyl)-2-azabicyclo[3.1.0]hexane hydrochloride;	IR (cm^{-1}): 3522, 3443, 2886, 2689, 2588, 2492, 1621, 1559, 1453, 1407, 1388, 1359, 1276, 1122, 1031, 847, 760; ^{1}H-NMR (CD_3OD): 8.49 (bs, 1H), 8.14 (bs, 1H), 7.84 (bs, 1H), 4.60-4.50 (m, 1H), 4.48-4.32 (m, 1H), 3.98-3.82 (m, 1H), 3.48-3.40 (m, 1H), 2.71 (s, 3H), 2.42-2.32 (m, 1H), 2.25-2.10 (m, 1H), 1.32-1.20 (m, 1H), 1.18-1.15 (m, 1H), 1.0-0.90 (m, 1H); Mass (m/z): 205 [$M+H^+$].

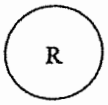
We claim:

1. A compound of the general formula (I),



(I)

wherein,



is heteroaryl;

at each occurrence, R_1 is independently selected from hydrogen or alkyl;

at each occurrence, R_2 is hydrogen;

at each occurrence, R_3 is independently selected from hydrogen, halogen or alkyl;

"m" is an integer 1;

"n" is an integer ranging from 1 to 2;

"p" is an integer ranging from 1 to 2; or a stereoisomer thereof or a pharmaceutically acceptable

salt thereof.

2.The compound according to claim 1, which is selected from the group consisting of:

3-(Pyridin-3-yloxymethyl)-2-azabicyclo[3.1.0]hexane dihydrochloride;

2-Methyl-3-(pyridin-3-yloxymethyl)-2-azabicyclo[3.1.0]hexane;

3-(2-Methylpyridin-3-yl-oxymethyl)-2-azabicyclo[3.1.0]hexane dihydrochloride;

3-(2-Chloropyridin-3-yloxymethyl)-2-azabicyclo[3.1.0]hexane dihydrochloride;

3-(2-Chloropyridin-5-yloxymethyl)-2-azabicyclo[3.1.0]hexane hydrochloride;

3-(2-Fluoropyridin-5-yloxymethyl)-2-azabicyclo[3.1.0]hexane dihydrochloride;

3-(5-Chloropyridin-3-yloxymethyl)-2-azabicyclo[3.1.0]hexane dihydrochloride;

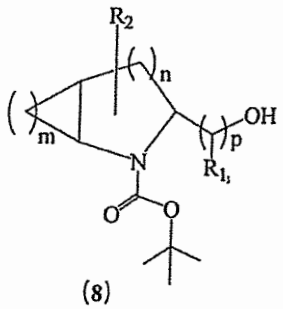
3-(5-Bromopyridin-3-yloxymethyl)-2-azabicyclo[3.1.0]hexane tartrate;

3-(2-Fluoropyridin-3-yloxymethyl)-2-azabicyclo[3.1.0]hexane tartrate;

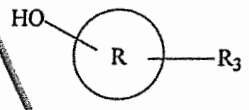
3-(2-Fluoropyridin-3-yloxymethyl)-2-methyl-2-azabicyclo[3.1.0]hexane tartrate;
3-(2-Chloropyridin-3-yloxymethyl)-2-methyl-2-azabicyclo[3.1.0]hexane;
2-Methyl-3-(2-methylpyridin-3-yloxymethyl)-2-azabicyclo[3.1.0]hexane;
2-Methyl-3-(2-methylpyridin-5-yloxymethyl)-2-azabicyclo[3.1.0]hexane;
3-(2-Chloropyridin-5-yloxymethyl)-2-methyl-2-azabicyclo[3.1.0]hexane;
3-(2-Fluoropyridin-5-yloxymethyl)-2-methyl-2-azabicyclo[3.1.0]hexane;
3-(5-Chloropyridin-3-yloxymethyl)-2-methyl-2-azabicyclo[3.1.0]hexane;
3-(5-Bromopyridin-3-yloxymethyl)-2-methyl-2-azabicyclo[3.1.0]hexane dihydrochloride;
3-(2-Methylpyridin-5-yloxymethyl)-2-azabicyclo[3.1.0]hexane;
3-(Pyridin-3-yloxymethyl)-2-azabicyclo[4.1.0]heptane; and
3-(5-Chloropyridin-3-yloxymethyl)-2-azabicyclo[4.1.0]heptane; or their stereoisomers, or their pharmaceutically acceptable salts.

3. A process for the preparation of a compound of formula (I) as claimed in claim 1, which comprises:

(a) reacting the compound of formula (8) with hydroxyl compound of formula (9)

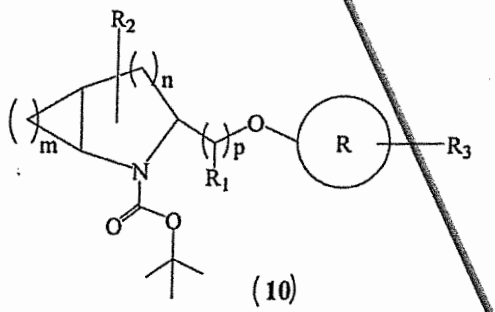


(8)



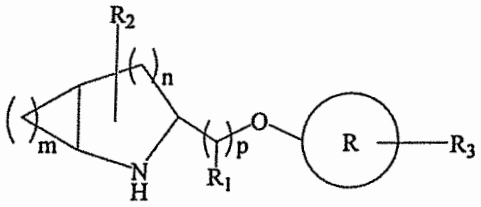
(9)

to form a compound of formula (10),



(10)

(b) converting the compound of formula (10) to deprotected compound of formula (11),



(11)

(c) converting the compound of formula (11) to compound of formula (I),optionally converting the compound of formula (I) to their stereoisomer's and pharmaceutically acceptable salts by using known methods.

4. A pharmaceutical composition comprising a compound according to any of the preceding claims or a pharmaceutically acceptable carrier, diluent, recipient or solvate along with a therapeutically effective amount of a compound according to claim 1.

5. The pharmaceutical composition according to claim 4, for the treatment of clinical conditions such as depression, cognitive memory disorders, pain and obesity.

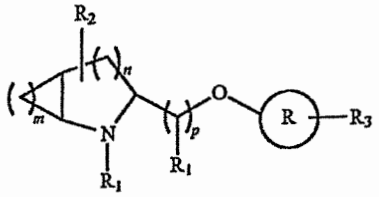
6. Use of a compound according to any one of the claims 1 to 2 in the manufacture of medicament for the treatment of diseases related to $\alpha_4\beta_2$ nicotinic receptor.

7. The use of compound according to the claim 6, for the treatment of clinical conditions such as depression, cognitive memory disorders, pain and obesity.

8. A compound of formula (I) as claimed in claim 1, for manufacture of a medicament for treatment of diseases related to $\alpha_4\beta_2$ nicotinic receptor.

We claim:

1. A compound of the formula (I):



(I)

wherein,

R is heteroaryl; at each occurrence, R_1 is independently selected from hydrogen or alkyl;

at each occurrence, R_2 is independently selected from hydrogen, alkyl or alkoxy;

at each occurrence, R_3 is independently selected from hydrogen, hydroxy, halogen, amide, amine, carboxylic, alkyl, alkoxy, haloalkyl, haloalkoxy or heterocyclyl;

"m" is an integer 1;

"n" is an integer ranging from 1 to 2;

"p" is an integer ranging from 1 to 2; or their stereoisomers or a pharmaceutically acceptable salt.

2. The compound according to claim 1, wherein R_2 is hydrogen or alkyl.

3. The compound according to claim 1, wherein R_3 is hydrogen, hydroxy, halogen, amide, amine, carboxylic, alkyl, alkoxy or heterocyclyl.

4. The compound according to claim 1, which is selected from the group consisting of:

3-(Pyridin-3-yloxymethyl)-2-azabicyclo[3.1.0]hexane hydrochloride;

2-Methyl-3-(pyridin-3-yloxymethyl)-2-azabicyclo[3.1.0]hexane;

3-(2-Methylpyridin-3-yl-oxymethyl)-2-azabicyclo[3.1.0]hexane hydrochloride;

3-(2-Chloropyridin-3-yloxymethyl)-2-azabicyclo[3.1.0]hexane hydrochloride;

3-(2-Chloropyridin-5-yloxymethyl)-2-azabicyclo[3.1.0]hexane hydrochloride;

3-(2-Fluoropyridin-5-yloxymethyl)-2-azabicyclo[3.1.0]hexane hydrochloride;

3-(5-Chloropyridin-3-yloxymethyl)-2-azabicyclo[3.1.0]hexane hydrochloride;

3-(5-Bromopyridin-3-yloxymethyl)-2-azabicyclo[3.1.0]hexane tartrate;

3-(2-Fluoropyridin-3-yloxymethyl)-2-azabicyclo[3.1.0]hexane tartrate;

3-(2-Fluoropyridin-3-yloxymethyl)-2-methyl-2-azabicyclo[3.1.0]hexane tartrate;

3-(2-Chloropyridin-3-yloxymethyl)-2-methyl-2-azabicyclo[3.1.0]hexane;

2-Methyl-3-(2-methylpyridin-3-yloxymethyl)-2-azabicyclo[3.1.0]hexane;

2-Methyl-3-(2-methylpyridin-5-yloxymethyl)-2-azabicyclo[3.1.0]hexane;

3-(2-Chloropyridin-5-yloxymethyl)-2-methyl-2-azabicyclo[3.1.0]hexane;

3-(2-Fluoropyridin-5-yloxymethyl)-2-methyl-2-azabicyclo[3.1.0]hexane;

3-(5-Chloropyridin-3-yloxymethyl)-2-methyl-2-azabicyclo[3.1.0]hexane;

3-(5-Bromopyridin-3-yloxymethyl)-2-methyl-2-azabicyclo[3.1.0]hexane;

3-(2-Methylpyridin-5-yloxymethyl)-2-azabicyclo[3.1.0]hexane hydrochloride;

5-(2-Azabicyclo[3.1.0]hex-3-ylmethoxy)pyridine-2-carboxylic acid amide;

5-(2-Azabicyclo[3.1.0]hex-3-ylmethoxy)pyridine-2-carboxylic acid;

3-(2-Methoxypyridin-5-yloxymethyl)-2-azabicyclo[3.1.0]hexane;

3-(2-Isopropoxypyridin-3-yloxymethyl)-2-azabicyclo[3.1.0]hexane;

5-(2-Methyl-2-azabicyclo[3.1.0]hex-3-ylmethoxy)pyridine-2-carboxylic acid amide;

5-(2-Methyl-2-azabicyclo[3.1.0]hex-3-ylmethoxy)pyridine-2-carboxylic acid;

3-(2-Methoxypyridin-5-yloxymethyl)-2-methyl-2-azabicyclo[3.1.0]hexane;

3-(2-Isopropoxypyridin-5-yloxymethyl)-2-methyl-2-azabicyclo[3.1.0]hexane;

5-[1-(2-Azabicyclo[3.1.0]hex-3-yl)-ethoxy]pyridin-2-ylamine;

3-(2-Pyrrolidin-1-yl-pyridin-5-yloxymethyl)-2-aza-bicyclo[3.1.0]hexane;

5-[1-(2-Methyl-2-azabicyclo[3.1.0]hex-3-yl)ethoxy]pyridin-2-ylamine;

2-Methyl-3-(2-pyrrolidin-1-yl-pyridin-5-yloxymethyl)-2-azabicyclo[3.1.0]hexane;

3-(Pyridin-3-yloxymethyl)-2-azabicyclo[4.1.0]heptane;

3-(6-Methylpyridin-3-yloxymethyl)-2-azabicyclo[4.1.0]heptane;

3-(2-Methylpyridin-3-yloxymethyl)-2-azabicyclo[4.1.0]heptane;

3-(5-Chloropyridin-3-yloxymethyl)-2-azabicyclo[4.1.0]heptane;

2-Methyl-3-(2-methylpyridin-3-yloxymethyl)-2-azabicyclo[4.1.0]heptane;

3-(5-Chloropyridin-3-yloxymethyl)-2-methyl-2-azabicyclo[4.1.0]heptane;

4-[2-(Pyridin-3-yloxy)ethyl]-2-azabicyclo[3.1.0]hexane;

4-[2-(5-Chloropyridin-3-yloxy)ethyl]-2-methyl-2-azabicyclo[3.1.0]hexane;

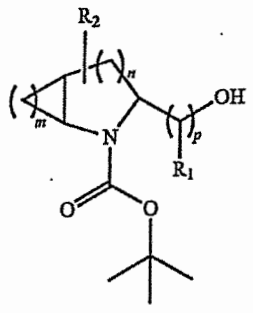
3-(Pyridin-3-yloxymethyl)-2-azabicyclo[4.1.0]heptane hydrochloride;

3-(5-Chloropyridin-3-yloxymethyl)-2-azabicyclo[4.1.0]heptane hydrochloride; or their stereoisomers or a pharmaceutically acceptable salt.

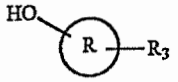
5. A process for the preparation of a compound of formula (I) as claimed in claim 1, which comprises:

(a) reacting the compound of formula (8) with hydroxyl compound of formula (9),

(8)

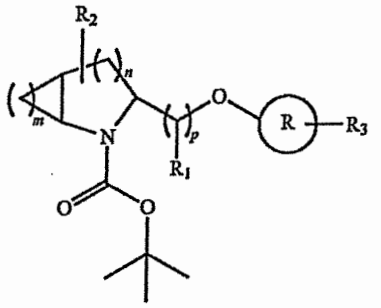


(9)



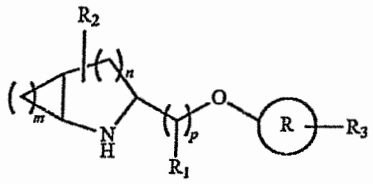
to form a compound of formula (10),

(10)



(b) converting the compound of formula (10) to deprotected compound of formula (11),

(11)



(c) converting the compound of formula (11) to compound of formula (I), optionally converting the compound of formula (I) to their stereoisomers or a pharmaceutically acceptable salt.

6. A pharmaceutical composition comprising a therapeutically effective amount of a compound according to claim 1 or a solvate thereof and a pharmaceutically acceptable carrier, diluent, or excipient.

7. The pharmaceutical composition according to claim 6, for the treatment of clinical conditions selected from the group consisting of at least one of cognitive disorders, depression, pain and obesity.

8. A method for the treatment of a disorder of the central nervous system related to or affected by the $\alpha_4\beta_2$ nicotinic receptor, in a patient in need thereof, which comprises providing to said patient a therapeutically effective amount of a compound of formula (I) as defined in claim 1, wherein the disorder is a cognitive disorder, depression, pain or obesity.