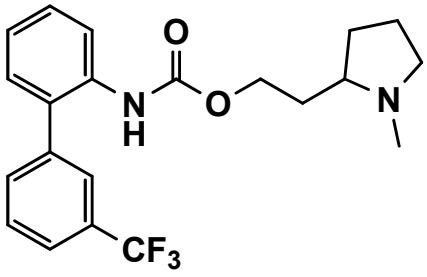
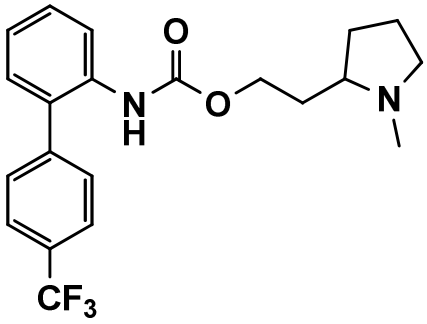
In addition, when the muscarinic M3 receptor antagonist of the present invention is for oral administration, the compound of formula 1 or a pharmaceutically acceptable salt thereof may be contained in an amount of 1-95 wt%, preferably 1-70 wt%, based on the total weight of the M3 receptor antagonist.

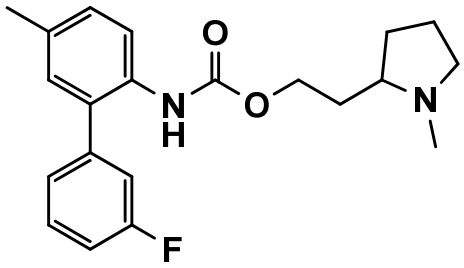
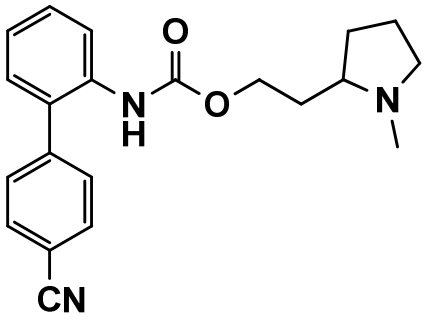
The pharmaceutical composition of the present invention may be administered orally or may be administered parenterally in the form of injectable solutions, suppositories, transdermal agents, inhalation agents or intravesical agents.

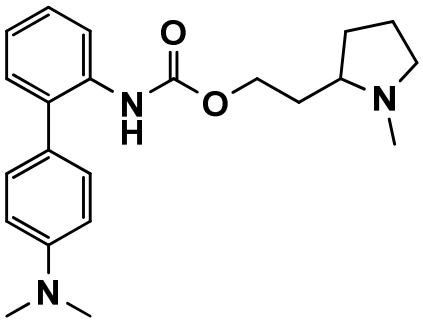
The present invention also provides a method for treating or alleviating a disease related to the activity on muscarinic M3 receptor, the method comprising administering a muscarinic M3 receptor antagonist containing the compound of formula 1 or a pharmaceutically acceptable salt as an active ingredient to mammals including humans in need of muscarinic M3 receptor antagonist activity.

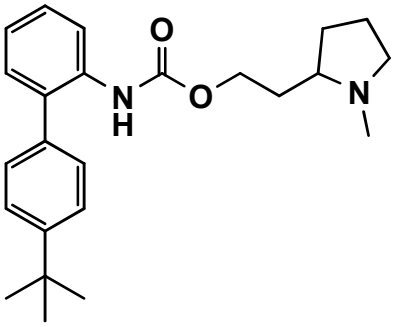
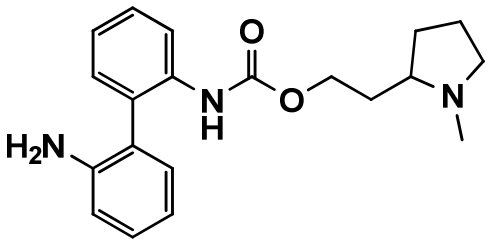
The muscarinic M3 receptor antagonist of the present invention may be used alone or in combination with surgery, hormone therapy, drug therapy and a biological response modifier in order to prevent or treat a disease related to the activity on muscarinic M3 receptor.

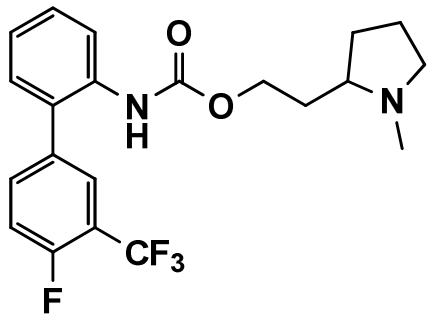
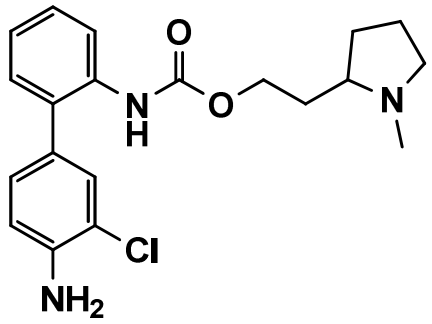
Method for Prevention or Treatment of Muscarinic M3 Receptor-Related Diseases

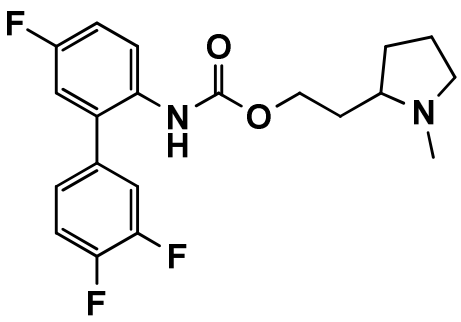
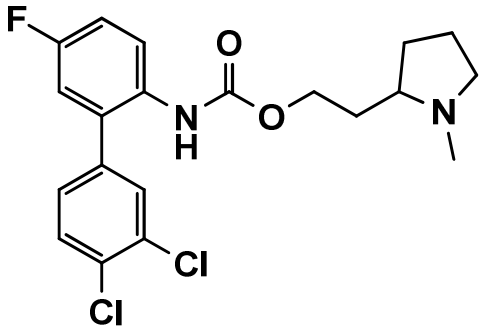
12	2-(1-Methylpyrrolidin-2-yl)ethyl (3'-trifluoromethyl-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.10-7.92(m, 1H), 7.73-7.46(m, 3H), 7.44-7.31(m, 1H), 7.31-7.05(m, 2H), 6.55-6.34(bs, 1H), 4.26-4.02(m, 2H), 3.20-3.00(m, 1H), 2.31(s, 3H), 2.25-1.88(m, 4H) 1.86-1.40(m, 4H)
13	2-(1-Methylpyrrolidin-2-yl)ethyl (4'-trifluoromethyl-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.04(s, 1H), 7.72(d, 2H, *J*=8.0Hz), 7.48(d, 2H, *J*=8.4Hz), 7.41-7.36(m, 1H), 7.20-7.13(m, 2H), 6.41(s, 1H), 4.18-4.14(m, 2H), 3.06-3.01(s, 1H), 2.27(s, 3H), 2.18-2.04(m, 2H), 2.02-1.87(m, 2H), 1.77-1.68(m, 2H), 1.57-1.43(m, 2H)

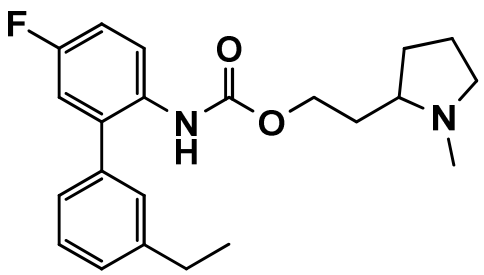
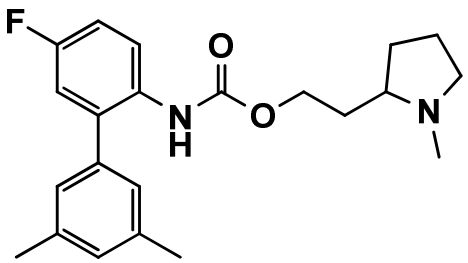
27	2-(1-Methylpyrrolidin-2-yl)ethyl (3'-fluoro-5-methyl-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.92 (s, 1H), 7.44-7.38(m, 2H), 7.20-7.15(m, 1H), 7.13-7.09(m, 1H), 7.07-6.97(m, 2H), 6.55(s, 1H), 4.17-4.07(m, 2H), 3.30-3.23(m, 1H), 2.49(s, 3H), 2.37(s, 3H), 2.15-2.05(m, 2H), 1.93-1.90(m, 2H), 1.79-1.76(m, 2H), 1.63-1.61(m, 2H)
28	2-(1-Methylpyrrolidin-2-yl)ethyl (4'-cyano-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.06-7.93(m, 1H), 7.75(d, 8.4Hz, 2H), 7.49(d, *J*=8.0Hz, 2H), 7.44-7.33(m, 1H), 7.21-7.09(m, 2H), 6.42-6.38(bs, 1H), 4.22-4.07(m, 2H), 3.11-2.98(m, 1H), 2.29(s, 3H), 2.19-1.85(m, 3H) 1.85-1.39(m, 5H)

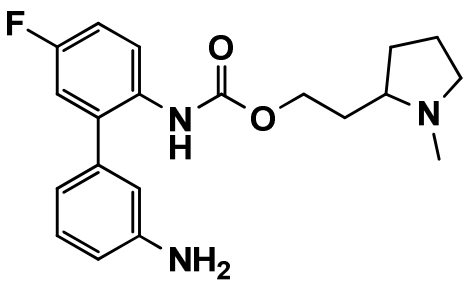
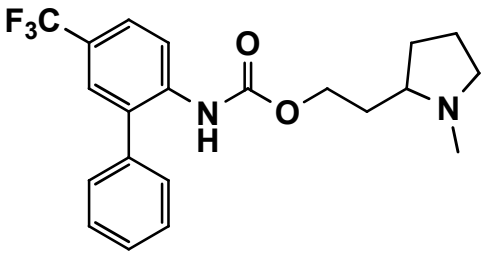
30	2-(1-Methylpyrrolidin-2-yl)ethyl (4'-(dimethylamino)-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.11(s, 1H), 7.28(t, 1H, *J*=7.2Hz), 7.23-7.19(m, 2H), 7.19-7.17(m, 1H), 7.07(t, 1H, *J*=7.6Hz), 6.81(t, 2H, *J*=2.8Hz), 6.74(s, 1H), 4.18-4.14(m, 2H), 3.09-3.01(m, 1H), 3.00(s, 9H), 2.14(s, 3H), 2.12-2.06(m, 2H), 2.01-1.92(m, 2H), 1.79-1.66(m, 2H), 1.58-1.46(m, 2H)

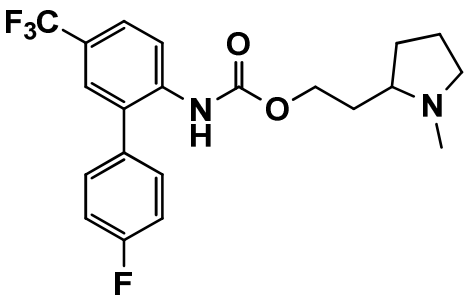
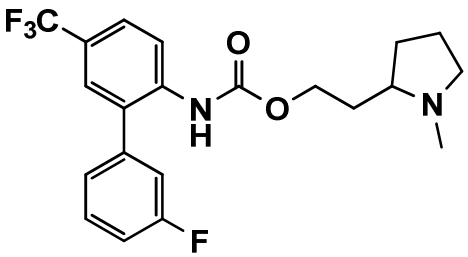
31	2-(1-Methylpyrrolidin-2-yl)ethyl (4'-(*tert*-butyl)-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.04(s, 1H), 7.48-7.46(m, 2H), 7.35-7.27(m, 3H), 7.24-7.19(m, 1H), 7.12-7.08(m, 1H), 6.67(s, 1H), 4.17-4.13(m, 2H), 3.10-3.07(m, 1H), 2.30(s, 3H), 2.18-1.99(m, 2H), 1.98-1.90(m, 2H), 1.80-1.62(m, 2H), 1.44-1.36(m, 2H), 1.36(s, 9H)
32	2-(1-Methylpyrrolidin-2-yl)ethyl (2'-amino-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.11(s, 1H), 7.37(t, 1H, *J*=8.0Hz), 7.22-7.20(m, 2H), 7.13(t, 1H, *J*=7.6Hz), 7.06(d, 1H, *J*=7.6Hz), 6.86-6.78(m, 2H), 4.15-4.11(m, 2H), 3.08-3.04(s, 1H), 2.25(s, 3H), 2.17-2.10(m, 2H), 2.02-1.90(m, 2H), 1.78-1.66(m, 2H), 1.58-1.46(m, 2H)

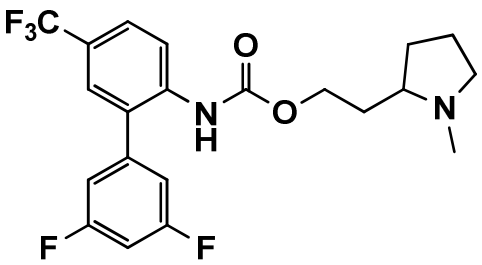
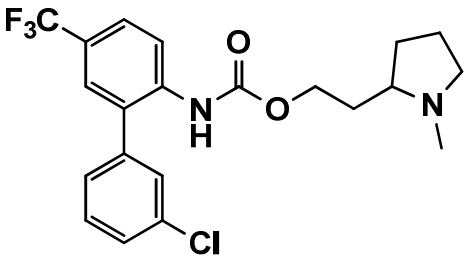
38	2-(1-Methylpyrrolidin-2-yl)ethyl (4'-fluoro-3'-(trifluoromethyl)-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.99(s, 1H), 7.60-7.58(m, 1H), 7.56-7.53(m, 1H), 7.41-7.36(m, 1H), 7.32-7.27(m, 1H), 7.20-7.14(m, 2H), 6.37(s, 1H), 4.18-4.13(m, 2H), 3.14-3.12(m, 1H), 2.34(s, 3H), 2.34-2.21(m, 2H), 2.06-1.93(m, 2H), 1.76-1.68(m, 2H), 1.64-1.46(m, 2H)
39	2-(1-Methylpyrrolidin-2-yl)ethyl (4'-amino-3'-chloro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.04(s, 1H), 7.30(t, 1H, *J*=8.0Hz), 7.15-7.12(m, 2H), 7.07-7.03(m, 2H), 6.82(d, 1H, *J*=8.4Hz), 6.59(s, 1H), 4.18-4.09(m, 2H), 3.08-3.04(m, 1H), 2.30(s, 3H), 2.25-2.10 (m, 2H), 2.08-1.91(m, 2H), 1.81-1.57(m, 2H), 1.56-1.43(m, 2H)

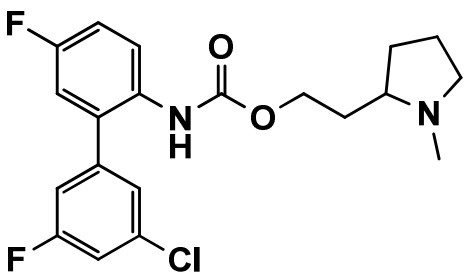
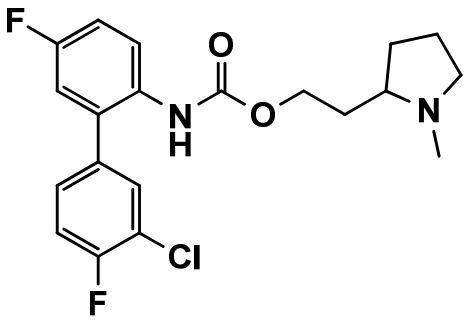
42	2-(1-Methylpyrrolidin-2-yl)ethyl (3',4',5-trifluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.98(s, 1H), 7.29-7.28(m, 1H), 7.17-7.14(m, 1H), 7.08-7.03(m, 2H), 6.90(dd, 1H, *J*=8.8Hz, *J*=2.8Hz), 6.33(s, 1H), 4.17-4.13(m, 2H), 3.05-3.03(m, 1H), 2.28(s, 3H), 2.08-2.03(m, 2H), 2.02-1.89(m, 2H), 1.79-1.63(m, 2H), 1.60-1.42(m, 2H)
43	2-(1-Methylpyrrolidin-2-yl)ethyl (3',4'-dichloro-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.94(s, 1H), 7.54(d, 1H, *J*=8.4Hz), 7.44(d, 1H, *J*=2.0Hz), 7.19(dd, 1H, *J*=8.4Hz, *J*=2.0Hz), 7.09-7.05(m, 1H), 6.91(dd, 1H, *J*=8.4Hz, *J*=2.8Hz), 6.38(s, 1H), 4.20-4.14(m, 2H), 3.17-3.16(m, 1H), 2.36(s, 3H), 2.07-1.96(m, 2H), 1.83-1.80(m, 2H), 1.77-1.71(m, 2H), 1.58-1.54(m, 2H)

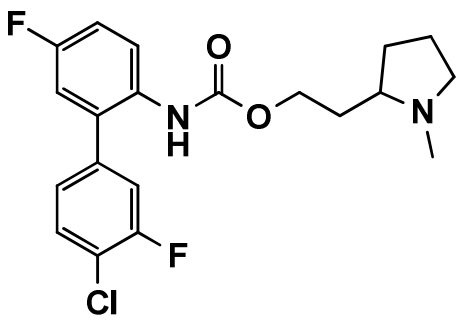
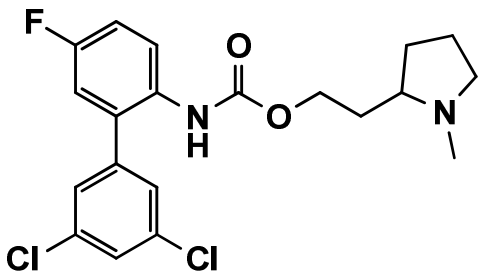
44	2-(1-Methylpyrrolidin-2-yl)ethyl (3'-ethyl-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.01(s, 1H), 7.38(t, 1H, *J*=8.0Hz), 7.25-7.23(m, 1H), 7.16-7.13(m, 2H), 7.05-7.00(m, 1H), 6.95-6.92(m, 1H), 6.53(s, 1H), 4.17-4.12(m, 2H), 3.05-3.03(m, 1H), 2.68(q, 2H, *J*=7.6Hz), 2.28(s, 3H), 2.16-2.02(m, 2H), 2.00-1.88(m, 2H), 1.78-1.62(m, 2H), 1.59-1.41(m, 2H), 1.25(t, 3H, *J*=7.6Hz)
45	2-(1-Methylpyrrolidin-2-yl)ethyl (5-fluoro-3',5'-dimethyl-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.01(s, 1H), 7.03-6.98(m, 2H), 6.93-6.89(m, 2H), 6.55(s, 1H), 4.20-4.14(m, 2H), 3.03-3.01(m, 1H), 2.38(s, 6H), 2.35(s, 3H), 2.09-2.04(m, 2H), 2.03-1.90(m, 2H), 1.79-1.63(m, 2H), 1.59-1.44(m, 2H)

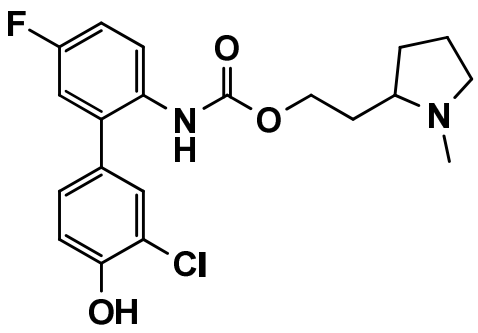
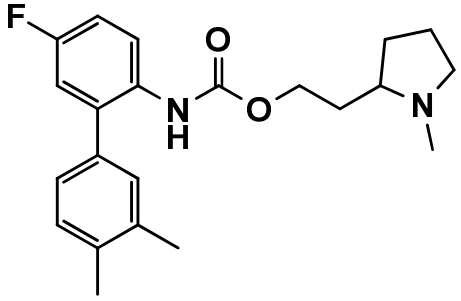
46	2-(1-Methylpyrrolidin-2-yl)ethyl (3'-amino-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.02(s, 1H), 7.25-7.21(m, 2H), 7.03-6.99(m, 1H), 6.92-6.89(m, 1H), 6.71-6.67(m, 2H), 6.60(s, 2H), 4.16-4.12(m, 2H), 3.04-3.01(m, 1H), 2.28(s, 3H), 2.02-1.97(m, 2H), 1.96-1.89(m, 2H), 1.78-1.63(m, 2H), 1.57-1.41(m, 2H)
47	2-(1-Methylpyrrolidin-2-yl)ethyl (5-(trifluoromethyl)-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.29(d, 1H, *J*=8.8Hz), 7.59(d, 1H, *J*=8.8Hz), 7.52-7.49(m, 2H), 7.46-7.44(m, 2H), 7.36-7.34(m, 2H), 6.78(s, 1H), 4.19-4.16(m, 2H), 3.12-3.10(m, 1H), 2.33(s, 3H), 2.17-2.05(m, 2H), 2.03-1.93(m, 2H), 1.78-1.64(m, 2H), 1.53-1.51(m, 2H)

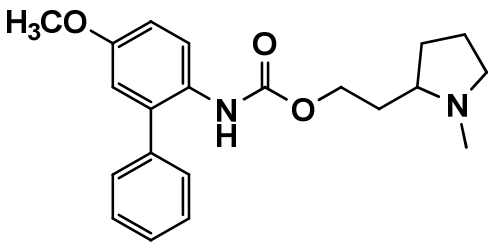
48	2-(1-Methylpyrrolidin-2-yl)ethyl (4'-fluoro-5-(trifluoromethyl)-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.27(d, 1H, *J*=8.4Hz), 7.59(d, 1H, *J*=8.8Hz), 7.41(d, 1H, *J*=1.2Hz), 7.34-7.31 (m, 2H), 7.22-7.18(m, 2H), 6.70(s, 1H), 4.22-4.16(m, 2H), 3.26-3.24(m, 1H), 2.41(s, 3H), 2.35-2.29(m, 2H), 2.13-1.98(m, 2H), 1.88-1.77(m, 2H), 1.62-1.59(m, 2H)
49	2-(1-Methylpyrrolidin-2-yl)ethyl (3'-fluoro-5-(trifluoromethyl)-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.29(d, 1H, *J*=8.8Hz), 7.61(d, 1H, *J*=8.8Hz), 7.51-7.45(m, 1H), 7.43(s, 1H), 7.18-7.13(m, 2H), 7.08-7.06(m, 1H), 6.71(s, 1H), 4.21-4.17(m, 2H), 3.12-3.10(m, 1H), 2.33(s, 3H), 2.19-2.15(m, 2H), 2.07-1.92(m, 2H), 1.74-1.71(m, 2H), 1.53-1.50(m, 2H)

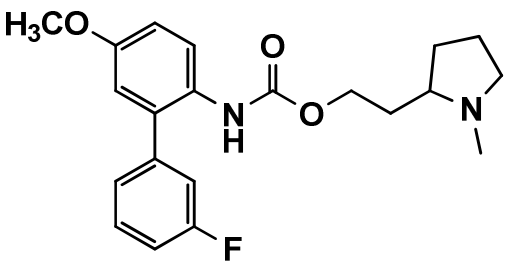
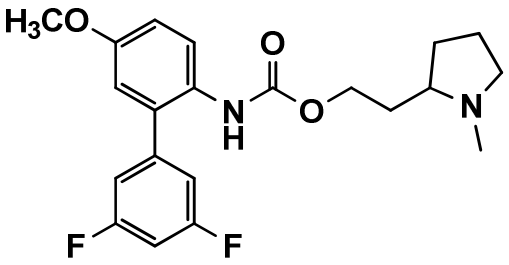
50	2-(1-Methylpyrrolidin-2-yl)ethyl (3',5'-difluoro-5-(trifluoromethyl)-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.26(d, 1H, *J*=8.8Hz), 7.62(d, 1H, *J*=8.8Hz), 7.43(s, 1H), 6.93-6.89(m, 3H), 6.78(s, 1H), 4.24-4.19(m, 2H), 3.28-3.21(m, 1H), 2.45(s, 3H), 2.15-2.04(m, 2H), 1.89-1.87(m, 2H), 1.82-1.80(m, 2H), 1.67-1.63(m, 2H)
51	2-(1-Methylpyrrolidin-2-yl)ethyl (3'-chloro-5-(trifluoromethyl)-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.27(d, 1H, *J*=8.4Hz), 7.61(d, 1H, *J*=8.8Hz), 7.47-7.43(m, 3H), 7.35(s, 1H), 7.25-7.23(m, 1H), 6.75(s, 1H), 4.23-4.17(m, 2H), 3.34-3.32(m, 1H), 2.42(s, 3H), 2.11-2.05(m, 2H), 2.02-1.91(m, 2H), 1.90-1.83(m, 2H), 1.83-1.80(m, 2H)

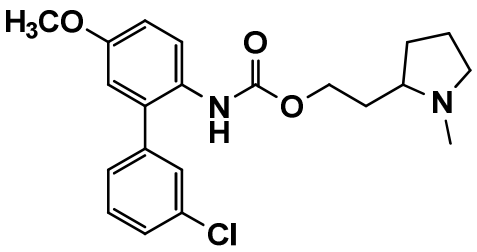
52	2-(1-Methylpyrrolidin-2-yl)ethyl (3'-chloro-5,5'-difluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.91(s, 1H), 7.22-7.20(m, 1H), 7.15-7.13(m, 1H), 7.10-7.05(m, 1H), 6.99-6.97(m, 1H), 6.92(dd, 1H, *J*=8.8Hz, *J*=2.8Hz), 6.44(s, 1H), 4.21-4.14(m, 2H), 3.22-3.19(m, 1H), 2.40(s, 3H), 2.32-2.28(m, 2H), 2.10-2.02(m, 2H), 1.86-1.59(m, 2H), 1.26-1.22(m, 2H)
53	2-(1-Methylpyrrolidin-2-yl)ethyl (3'-chloro-4',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.91(s, 1H), 7.39(dd, 1H, *J*=7.2Hz, *J*=2.0Hz), 7.23-7.19(m, 2H), 7.08-7.04(m, 1H), 6.90(dd, 1H, *J*=8.4Hz, *J*=2.8Hz), 6.37(s, 1H), 4.18-4.13(m, 2H), 3.14-3.10(m, 1H), 2.33(s, 3H), 2.23-2.16(m, 2H), 2.06-1.91(m, 2H), 1.82-1.65(m, 2H), 1.60-1.51(m, 2H)

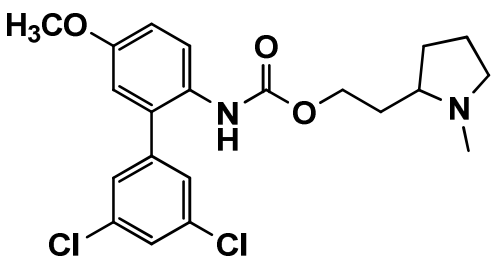
54	2-(1-Methylpyrrolidin-2-yl)ethyl (4'-chloro-3',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.81(s, 1H), 7.47-7.43(m, 1H), 7.19-7.11(m, 2H), 7.11-6.95(m, 1H), 6.90(dd, 1H, *J*=8.8Hz, *J*=3.2Hz) 6.62(s, 1H), 4.14-4.04(m, 2H), 3.21-3.16(m, 1H), 2.37(s, 3H), 2.04-1.95(m, 2H), 1.84-1.69(m, 2H), 1.67-1.61(m, 1H), 1.57-1.48(m, 2H)
55	2-(1-Methylpyrrolidin-2-yl)ethyl (3',5'-dichloro-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.90(s, 1H), 7.41-7.40(m, 1H), 7.25-7.22(m, 2H), 7.10-7.05(m, 1H), 6.91(dd, 1H, *J*=8.8Hz, *J*=2.8Hz), 6.38(s, 1H), 4.20-4.16(m, 2H), 3.16-3.12(m, 1H), 2.36(s, 3H), 2.23-2.21(m, 2H), 2.09-1.94(m, 2H), 1.80-1.64(m, 2H), 1.56-1.52(m, 2H)

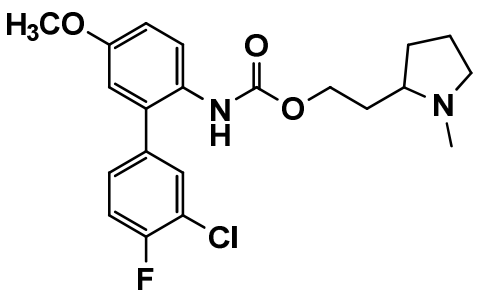
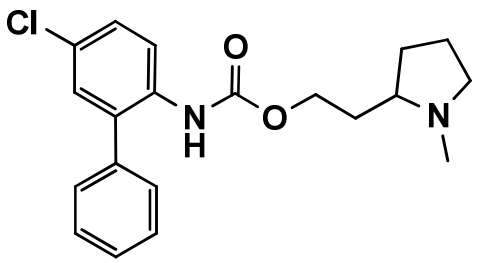
58	2-(1-Methylpyrrolidin-2-yl)ethyl (3'-chloro-5-fluoro-4'-hydroxy-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.83(s, 1H), 7.25-7.20(m, 1H), 7.05-6.92(m, 3H), 6.88(dd, 1H, *J*=8.8Hz, *J*=2.8Hz), 6.57(s, 1H), 4.14-4.06(m, 2H), 3.22-3.17(m, 1H), 2.40(s, 3H), 2.39-2.29(m, 2H), 2.10-1.97(m, 2H), 1.86-1.66(m, 2H), 1.65-1.54(m, 2H)
59	2-(1-Methylpyrrolidin-2-yl)ethyl (5-fluoro-3',4'-dimethyl-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.99(s, 1H), 7.22-7.20(m, 1H), 7.08-6.97(m, 3H), 6.90(dd, 1H, *J*=9.2Hz, *J*=2.8Hz), 6.57(s, 1H), 4.15-4.13(m, 2H), 3.16-3.12(m, 1H), 2.31(s, 3H), 2.29(s, 6H), 2.02-2.17(m, 2H), 2.00-1.89(m, 2H), 1.76-1.55(m, 2H), 1.53-1.42(m, 2H)

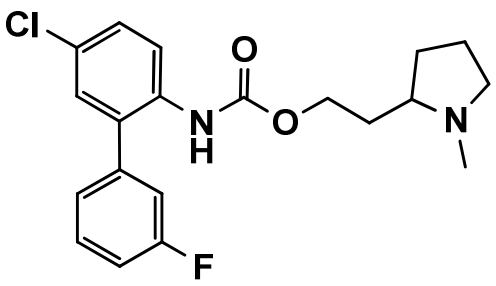
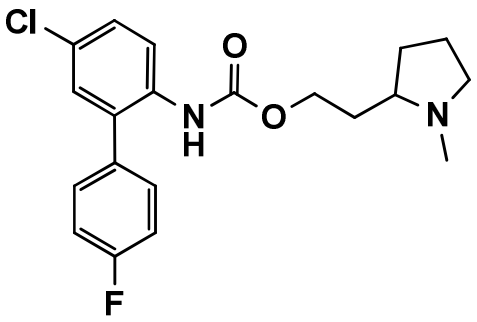
60	2-(1-Methylpyrrolidin-2-yl)ethyl (5-methoxy-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.93(s, 1H), 7.46-7.40(m, 2H), 7.39-7.36(m, 1H), 7.35-7.33(m, 2H), 6.89(dd, 1H, *J*=8.8Hz, *J*=2.8Hz), 6.77(d, 1H, *J*=2.8Hz), 6.38(s, 1H), 4.15-4.10(m, 2H), 3.86(s, 3H), 3.14-3.11(m, 1H), 2.35(m, 3H), 2.26-2.16(m, 2H), 2.06-1.91(m, 2H), 1.82-1.62(m, 2H), 1.60-1.45(m, 2H)

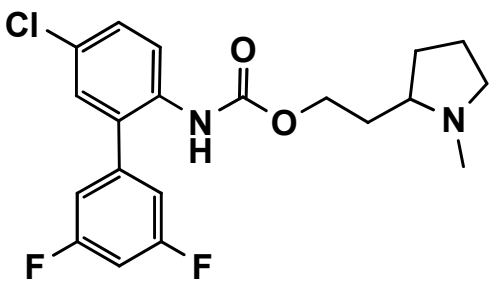
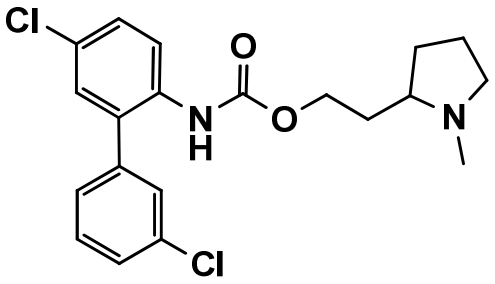
61	2-(1-Methylpyrrolidin-2-yl)ethyl (3'-fluoro-5-methoxy-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.82(s, 1H), 7.42-7.39(m, 1H), 7.14-7.10(m, 1H), 7.07-7.05(m, 2H), 6.90(dd, 1H, *J*=8.8Hz, *J*=3.2Hz), 6.75(d, 1H, *J*=3.2Hz), 6.37(s, 1H), 4.17-4.13(m, 2H), 3.79(s, 3H), 3.21-3.18(m, 1H), 2.38(s, 3H), 2.30-2.26(m, 2H), 2.09-1.99(m, 2H), 1.74-1.70(m, 2H), 1.56-1.53(m, 2H)
62	2-(1-Methylpyrrolidin-2-yl)ethyl (3',5'-difluoro-5-methoxy-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.72(s, 1H), 7.28-7.26(m, 1H), 6.92-6.79(m, 3H), 6.74-6.73(m, 1H), 6.29(s, 1H), 4.15-4.10(m, 2H), 3.75(s, 3H), 3.15-3.10(m, 1H), 2.34(s, 3H), 2.27-2.25(m, 2H), 2.06-1.96(m, 2H), 1.78-1.69(m, 2H), 1.63-1.50(m, 2H)

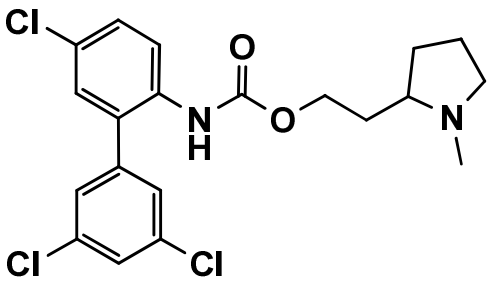
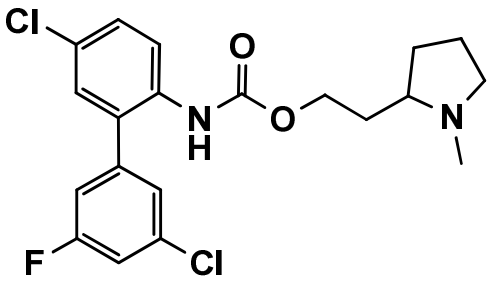
63	2-(1-Methylpyrrolidin-2-yl)ethyl (3'-chloro-5-methoxy-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.82(s, 1H), 7.38-7.34(m, 2H), 7.23-7.21(m, 2H), 6.90(dd, 1H, *J*=9.2Hz, *J*=2.8Hz), 6.74(d, 1H, *J*=2.8Hz), 6.28(s, 1H), 4.17-4.12(m, 2H), 3.78(s, 3H), 3.16-3.14(m, 1H), 2.35(s, 3H), 2.23-2.18(m, 2H), 2.21-1.93(m, 2H), 1.79-1.64(m, 2H), 1.60-1.50(m, 2H)

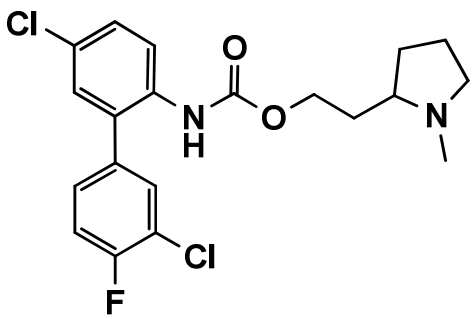
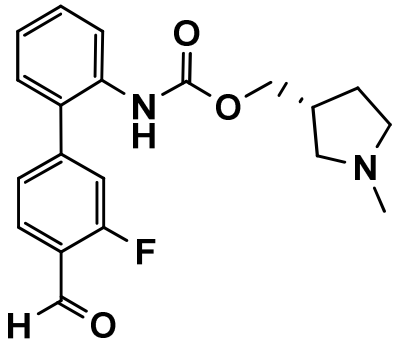
64	2-(1-Methylpyrrolidin-2-yl)ethyl (3',5'-dichloro-5-methoxy-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.70(s, 1H), 7.36-7.35(m, 1H), 7.23-7.20(m, 2H), 6.90(dd, 1H, *J*=8.8Hz, *J*=2.8Hz), 6.73-6.72(m, 1H), 6.58(s, 1H), 4.16-4.08(m, 2H), 3.75(s, 3H), 3.28-3.26(m, 1H), 2.43(s, 3H), 2.40-2.38(m, 2H), 2.08-2.02(m, 2H), 1.85-1.72(m, 2H), 1.60-1.57(m, 2H)

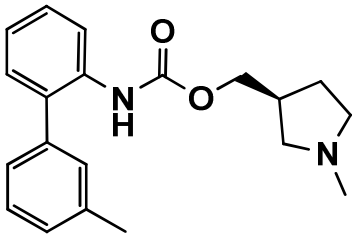
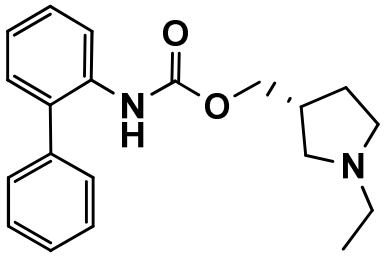
65	2-(1-Methylpyrrolidin-2-yl)ethyl (3'-chloro-4'-fluoro-5-methoxy-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.70(s, 1H), 7.39-7.38(m, 1H), 7.21-7.19(m, 2H), 6.90(dd, 1H, *J*=8.8Hz, *J*=2.8Hz), 6.72-6.71(m, 1H), 6.21(s, 1H), 4.15-4.09(m, 2H), 3.76(s, 3H), 3.13-3.11(m, 1H), 2.37(s, 3H), 2.30-2.23(m, 2H), 2.02-1.97(m, 2H), 1.79-1.71(m, 2H), 1.62-1.56(m, 2H)
66	2-(1-Methylpyrrolidin-2-yl)ethyl (5-chloro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.04(s, 1H), 7.48-7.45(m, 2H), 7.43-7.39(m, 1H), 7.32-7.28(m, 3H), 7.23-7.18(m, 1H), 6.56(s, 1H), 4.16-4.12(m, 2H), 3.06-3.02(m, 1H), 2.28(s, 3H), 2.12-1.96(m, 2H), 1.94-1.87(m, 2H), 1.76-1.64(m, 2H), 1.57-1.44(m, 2H)

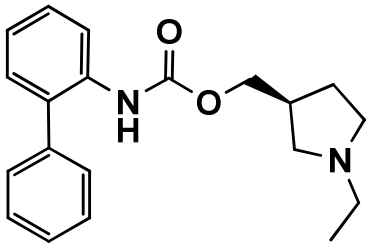
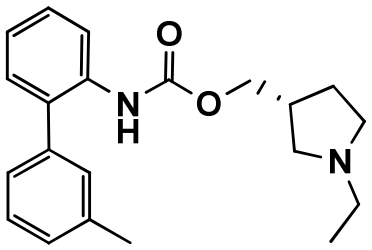
67	2-(1-Methylpyrrolidin-2-yl)ethyl (5-chloro-3'-fluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.03(s, 1H), 7.44(q, 1H, *J*=8.0Hz), 7.31(dd, 1H, *J*=8.8Hz, *J*=2.4Hz), 7.14-7.10(m, 2H), 7.05-7.03(m, 1H), 6.49(s, 1H), 4.17-4.13(m, 2H), 3.03-3.01(m, 2H), 2.29(s, 3H), 2.13-1.98(m, 2H), 1.97-1.88(m, 2H), 1.77-1.64(m, 2H), 1.59-1.42(m, 2H)
68	2-(1-Methylpyrrolidin-2-yl)ethyl (5-chloro-4'-fluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.02(s, 1H), 7.31-7.28(m, 3H), 7.18-7.14(m, 3H), 6.44(s, 1H), 4.17-4.13(m, 2H), 3.04-3.01(m, 1H), 2.28(s, 3H), 2.10-2.00(m, 2H), 1.98-1.87(m, 2H), 1.78-1.65(m, 2H), 1.57-1.44(m, 2H)

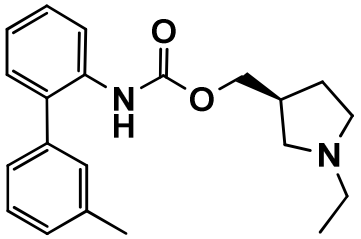
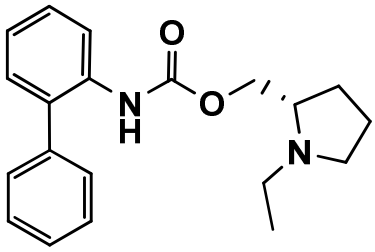
69	2-(1-Methylpyrrolidin-2-yl)ethyl (5-chloro-3',5'-difluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.99(s, 1H), 7.34-7.31(m, 2H), 7.17-7.16(m, 1H), 6.88-6.84(m, 2H), 6.51(s, 1H), 4.18-4.10(m, 2H), 3.16-3.13(m, 1H), 2.36(s, 3H), 2.32-2.29(m, 2H), 2.08-1.96(m, 2H), 1.82-1.61(m, 2H), 1.57-1.49(m, 2H)
70	2-(1-Methylpyrrolidin-2-yl)ethyl (3',5-dichloro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.01(s, 1H), 7.43-7.38(m, 2H), 7.32-7.30(m, 2H), 7.23-7.21(m, 1H), 7.17(d, 1H, J=2.4Hz), 6.47(s, 1H), 4.18-4.13(m, 2H), 3.06-3.04(m, 1H), 2.25(s, 3H), 2.19-2.06(m, 2H), 2.05-1.90(m, 2H), 1.80-1.59(m, 2H), 1.58-1.44(m, 2H)

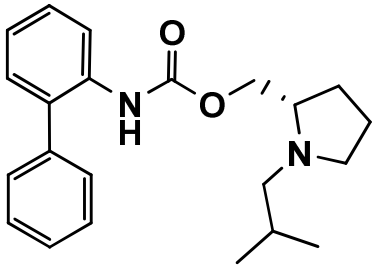
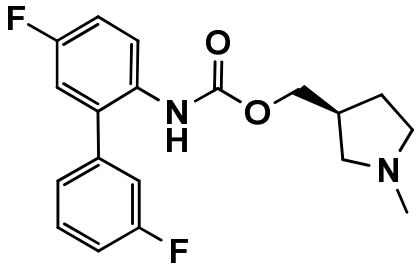
71	2-(1-Methylpyrrolidin-2-yl)ethyl (3',5,5'-trichloro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.98(s, 1H), 7.41(s, 1H), 7.33(dd, 1H, *J*=8.8Hz, *J*=2.4Hz), 7.23-7.22(m, 2H), 7.15(d, 1H, *J*=2.4Hz), 6.39(s, 1H), 4.19-4.14(m, 2H), 3.09-3.05(m, 1H), 2.30(s, 3H), 2.19-2.07(m, 2H), 2.04-1.91(m, 2H), 1.77-1.61(m, 2H), 1.59-1.43(m, 2H)
72	2-(1-Methylpyrrolidin-2-yl)ethyl (3',5-dichloro-5'-fluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.99(s, 1H), 7.33(dd, 1H, *J*=8.8Hz, *J*=2.4Hz), 7.21-7.13(m, 3H), 6.96(dd, 1H, *J*=8.8Hz, *J*=2.4Hz), 6.46(s, 1H), 4.20-4.12(m, 2H), 3.11-3.07(m, 1H), 2.32(s, 3H), 2.20-2.14(m, 2H), 2.06-1.91(m, 2H), 1.79-1.62(m, 2H), 1.60-1.45(m, 2H)

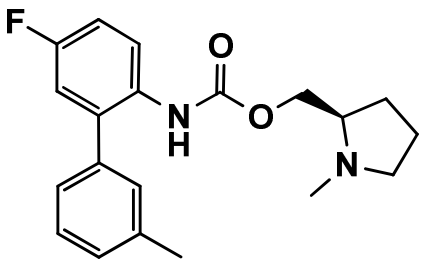
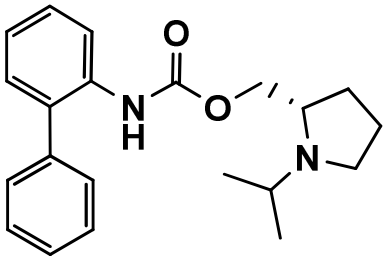
73	2-(1-Methylpyrrolidin-2-yl)ethyl (3',5-dichloro-4'-fluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.98(s, 1H), 7.39-7.37(m, 1H), 7.32-7.26(m, 1H), 7.23-7.21(m, 2H), 7.19(d, 1H, *J*=2.8Hz), 6.41(s, 1H), 4.17-4.13(m, 2H), 3.06-3.03(m, 1H), 2.26(s, 3H), 2.39-2.10(m, 2H), 2.03-1.89(m, 2H), 1.80-1.59(m, 2H), 1.57-1.43(m, 2H)
74	*(R)*-(1-methylpyrrolidin-3-yl)methyl (3'-fluoro-4'-formyl-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.00-7.93(m, 2H), 7.41-7.37(t, 1H, *J*=15.2Hz), 7.29-7.27(d, 1H, *J*=8.0Hz), 7.23-7.15(m, 3H), 6.51(s, 1H), 4.08-3.97(m, 2H), 2.60-2.56(t, 1H, *J*=17.2Hz), 2.49-2.45(m, 3H), 2.29-2.24(m, 4H), 1.96-1.91(m, 1H), 1.48-1.43(m, 1H)

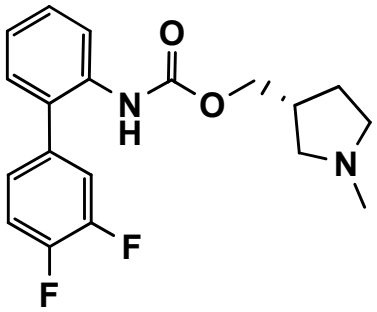
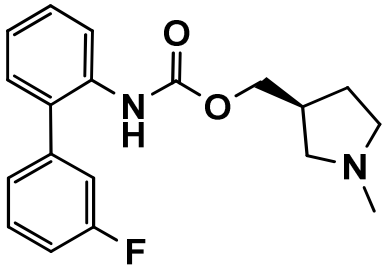
101	*(S)*-(1-methylpyrrolidin-3-yl)methyl (3'-methyl-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.15-7.99(bs, 1H), 7.46-7.29(m, 2H), 7,28-7.02(m, 5H), 6.74-6.58(bs, 1H), 4.15-3.93(m, 2H), 2.70-2.43(m, 4H), 2.40(s, 3H), 2.31(s, 3H), 2.15-2.17(m, 1H) 2.03-1.86(m, 1H), 1.57-1.40(m, 1H)
102	*(R)*-(1-ethylpyrrolidin-3-yl)methyl [1,1'-biphenyl]-2-ylcarbamate 	^{1}H NMR($CDCl_3$): δ 8.13-7.96(bs, 1H), 7.54-7.26(m, 6H), 7,25-7.02(m, 2H), 6.72-6.55(bs, 1H), 4.15-3.92(m, 2H), 2.91-2.69(m, 1H), 2.69-2.35(m, 5H), 2.33-2.17(m, 1H), 2.04-1.87(m, 1H) 1.60-1.42(m, 1H), 1.00(t, 3H, *J*=7.2Hz)

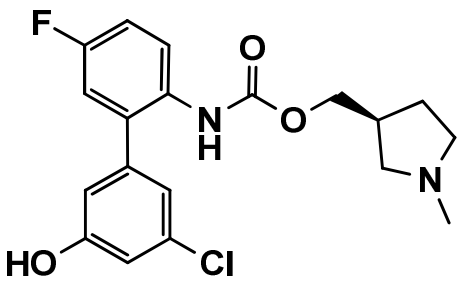
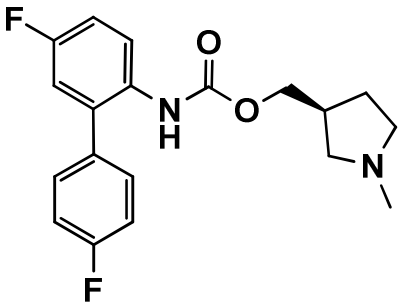
103	*(S)*-(1-ethylpyrrolidin-3-yl)methyl [1,1'-biphenyl]-2-ylcarbamate 	^{1}H NMR($CDCl_3$): δ 8.15-7.97(bs, 1H), 7.55-7.27(m, 6H), 7,24-7.05(m, 2H), 6.72-6.59(bs, 1H), 4.14-3.94(m, 2H), 2.92-2.71(bs, 1H), 2.71-2.39(m, 5H), 2.38-2.22(m, 1H), 2.04-1.86(m, 1H), 1.59-1.44(m, 1H), 1.11(t, 3H, *J*=7.2Hz)
104	*(R)*-(1-ethylpyrrolidin-3-yl)methyl (3'-methyl-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.13-8.00(bs, 1H), 7.42-7.27(m, 2H), 7.25-7.03(m, 5H), 6.69-6.59(bs, 1H), 4.13-3.95(m, 2H), 2.80-2.68(m, 1H), 2.68-2.32(m, 9H) 2.30-2.17(m, 1H), 2.03-1.89(m, 1H), 1.58-1.41(m, 1H), 1.18-1.04(t, 3H, *J*=7.6Hz)

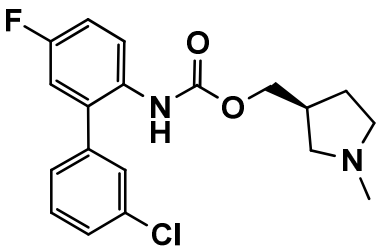
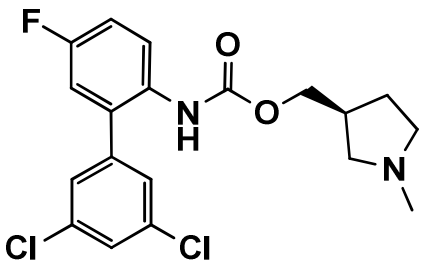
105	*(S)*-(1-ethylpyrrolidin-3-yl)methyl (3'-methyl-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.13-7.99(m, 1H), 7.43-7.27(m, 2H), 7.27-7.02(m, 5H), 6.72-6.58(bs, 1H), 4.13-3.94(m, 2H), 2.89-2.66(m, 1H), 2.66-2.15(m, 9H), 2.06-1.87(m, 1H), 1.57-1.40(m, 1H), 1.09(t, 3H, *J*=7.6Hz)
106	*(S)*-(1-ethylpyrrolidin-2-yl)methyl [1,1'-biphenyl]-2-ylcarbamate 	^{1}H NMR($CDCl_3$): δ 8.15-8.01(m, 1H), 7.54-7.26(m, 6H), 7,22-7.05(m, 2H), 6.72-6.58(bs, 1H), 4.22-4.07(m, 1H), 4.07-3.93(m, 1H), 3.21-3.02(m, 1H), 2.92-2.59(m, 2H), 2.41-2.12(m, 2H) 1.95-1.50(m, 5H), 1.08(t, 3H, J=7.2Hz)

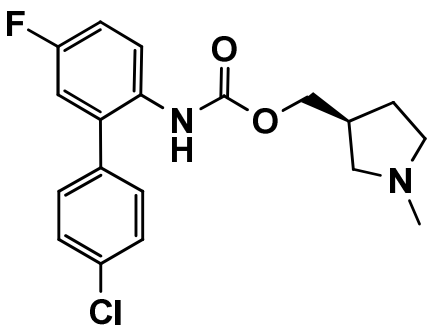
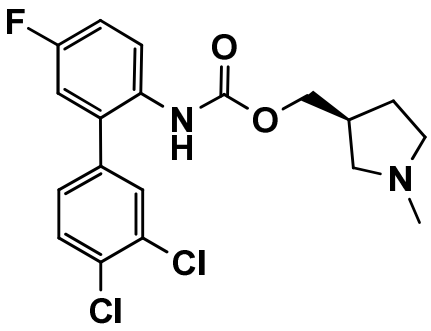
107	*(S)*-(1-isobutylpyrrolidin-2-yl)methyl [1,1'-biphenyl]-2-ylcarbamate 	^{1}H NMR($CDCl_3$): δ 8.18-8.02(m, 1H), 7.53-7.27(m, 6H), 7,22-7.03(m, 2H), 6.69-6.54(bs, 1H), 4.18-3.83(m, 2H), 3.15-2.95(bs, 1H), 2.71-2.53(bs, 1H), 2.48-2.30(m, 1H), 2.23-2.02(m, 2H), 1.92-1.45(m, 5H), 0.84(t, 6H, J=6.8Hz)
108	*(S)*-(1-methylpyrrolidin-3-yl)methyl (3',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.85(s, 1H), 7.46-7.41(m, 1H), 7.15-7.03(m, 4H), 6.96-6.93(m, 1H), 4.11-4.03(m, 2H), 2.92-2.90(m, 1H), 2.82-2.68(m, 2H), 2.42(s, 3H), 2.12-2.10(m, 2H), 1.71-1.69(m, 2H)

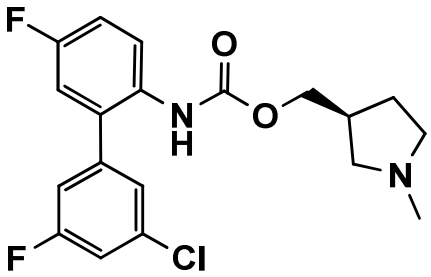
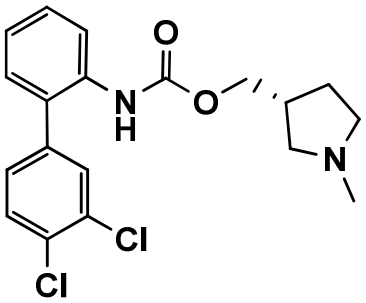
111	*(R)*-(1-methylpyrrolidin-2-yl)methyl (5-fluoro-3'-methyl-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.00(s, 1H), 7.34-7.31(m, 1H), 7.21-7.19(m, 1H), 7.12-7.06(m, 2H), 7.04-6.99(m, 1H), 6.92-6.89(m, 1H), 6.59(s, 1H), 4.18-4.04(m, 2H), 3.06-3.02(m, 1H), 2.38(s, 3H), 2.35(s, 3H), 2.22-2.15(m, 2H), 1.92-1.76(m, 2H), 1.68-1.54(m, 2H)
112	*(S)*-(1-isopropylpyrrolidin-2-yl)methyl [1,1'-biphenyl]-2-ylcarbamate 	^{1}H NMR($CDCl_3$): δ 8.15-8.01(m, 1H), 7.51-7.27(m, 6H), 7.21-7.06(m, 2H), 6.69-6.56(bs, 1H), 4.12-4.00(m, 1H), 3.87-3.76(m, 1H), 3.04-2.78(m, 3H) 2.53-2.40(m, 1H), 1.80-1.62(m, 4H), 1.08(d, 3H, *J*=6.4Hz), 0.99(d, 3H, *J*=6.4Hz)

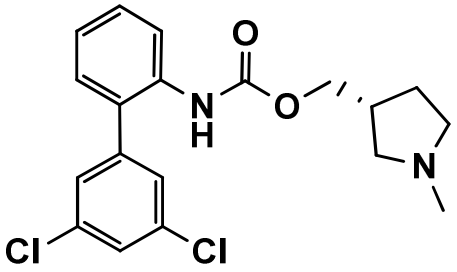
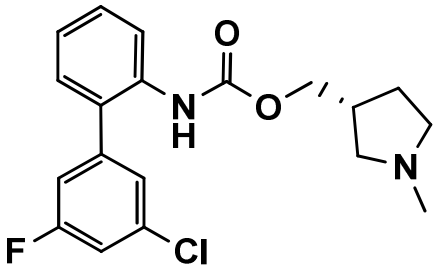
115	*(R)*-(1-methylpyrrolidin-3-yl)methyl (3',4'-difluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$) δ 8.02-8.01(m, 1H), 7.38-7.06(m, 5H), 6.47(s, 1H), 4.09-3.98(m, 2H), 2.62-2.58(t, 1H, *J*=17.2Hz), 2.55-2.46(m, 3H), 2.37-2.25(m, 4H), 2.04-1.91(m, 2H), 1.51-1.43(m, 1H)
116	*(S)*-(1-methylpyrrolidin-3-yl)methyl (3'-fluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.12-7.98(bs, 1H), 7.50-7.31(m, 2H), 7.24-7.02(m, 5H), 6.70-6.54(bs, 1H), 4.16-3.97(m, 2H), 2.77-2.65(m, 1H) 2.64-2.47(m, 3H), 2.45-2.28(m, 4H), 2.06-1.93(m, 1H), 1.61-1.47(m, 1H)

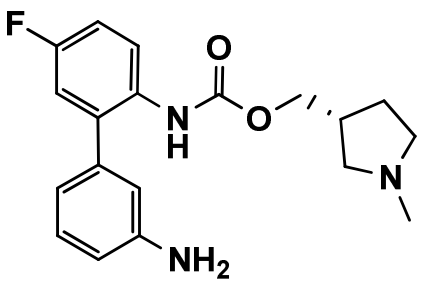
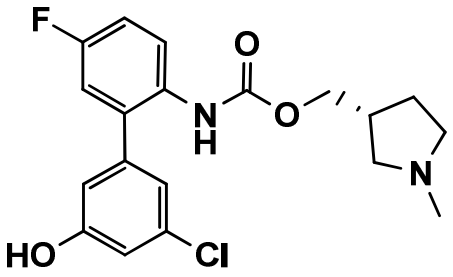
123	*(S)*-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-5-fluoro-5'-hydroxy-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.77-7.60(bs, 1H), 7.13-6.86(m, 3H), 6.79(s, 1H), 6.70(s, 1H), 6.53(s, 1H), 5.03-4.50(bs, 1H), 4.33-4.18(m, 1H), 4.18-3.98(m, 1H), 3.08-2.95(bs, 1H), 2.95-2.78(bs, 1H) 2.70-2.31(m, 5H), 2.08-1.90(bs, 1H), 1.90-1.70(bs, 1H)
124	*(S)*-(1-methylpyrrolidin-3-yl)methyl (4',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.00-7.85(bs, 1H), 7.38-7.25(m, 2H), 7.20-7.19(m, 2H), 7.03(td, 1H, *J*=8. 4Hz, 2.8Hz), 6.90(dd, 1H, *J*=8.8Hz, 2.8Hz), 6.51-6.39(bs, 1H), 4.12-3.90(m, 2H), 2.63-2.55(m, 1H) 2.55-2.39(m, 3H), 2.37-2.18(m, 4H), 1.99-1.85(m, 1H), 1.54-1.38(m, 1H)

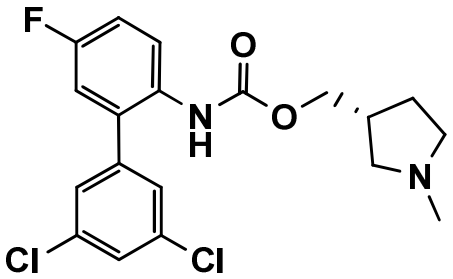
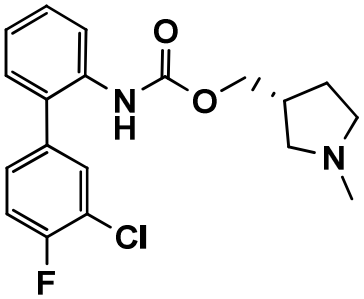
125	*(S)*-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.02-7.81(bs, 1H), 7.53-7.30(m, 3H), 7.26-7.19(m, 1H), 7.05(td, 1H, *J*=8.0Hz, 2.8Hz), 6.91(dd, 1H, J=8.8Hz, 2.8Hz), 6.54-6.45(bs, 1H), 4.13-3.86(m, 2H), 2.65-2.54(m, 1H) 2.54-2.42(m, 3H), 2.37-2.19(m, 4H), 2.00-1.86(m, 1H), 1.55-1.37(m, 1H)
126	*(S)*-(1-methylpyrrolidin-3-yl)methyl (3',5'-dichloro-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.92-7.76(bs, 1H), 7.42-7.36(m, 1H), 7.28-7.17(m, 2H), 7.06(td, 1h, *J*=8.8Hz, 2.8Hz), 6.90(dd, 1H, *J*=8.8Hz, 2.8Hz), 6.51-6.39(bs, 1H), 4.12-3.90(m, 2H), 2.63-2.55(m, 1H) 2.55-2.39(m, 3H), 2.37-2.18(m, 4H), 2.00-1.85(m, 1H), 1.54-1.38(m, 1H)

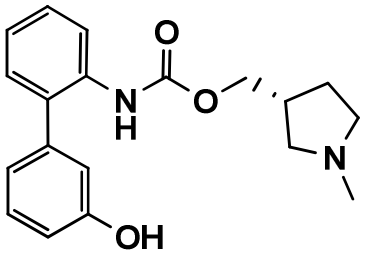
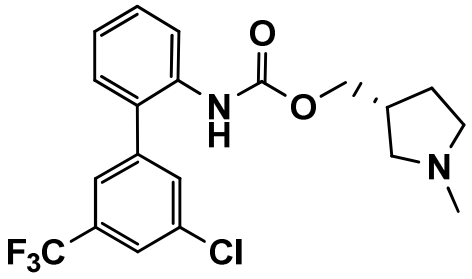
127	*(S)*-(1-methylpyrrolidin-3-yl)methyl (4'-chloro-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.98-7.82(bs, 1H), 7.49-7.38(m, 2H), 7.34-7.20(m, 2H), 7.03(td, 1H, *J*=8.4Hz, 2.8Hz), 6.90(dd, 1H, *J*=8.8Hz, 2.8Hz), 6.60-6.49(bs, 1H), 4.14-3.87(m, 2H), 2.66-2.59(m, 1H) 2.59-2.45(m, 3H), 2.42-2.15(m, 4H), 2.04-1.89(m, 1H), 1.57-1.42(m, 1H)
128	*(S)*-(1-methylpyrrolidin-3-yl)methyl (3',4'-dichloro-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.86-7.65(bs, 1H), 7.58-7.39(m, 2H), 7.26-7.16(m, 1H), 7.04(td, 1H, J=8.4Hz, 3.2Hz), 6.89(dd, 1H, *J*=8.8Hz, 3.2Hz), 6.89-6.79(bs, 1H), 4.15-3.94(m, 2H), 2.90-2.73(m, 2H) 2.73-2.54(m, 3H), 2.52-2.19(m, 3H), 2.14-1.96(m, 1H), 1.70-1.54(m, 1H)

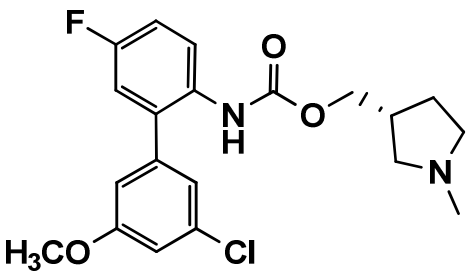
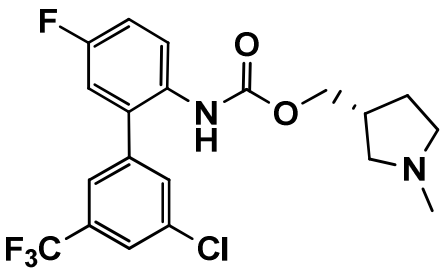
129	*(S)*-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-5,5'-difluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.97-7.76(bs, 1H), 7.18-7.02(m, 3H), 7.03-6.86(m, 2H), 6.54-6.42(bs, 1H), 4.03-3.85(m, 2H), 2.65-2.57(m, 1H) 2.57-2.41(m, 3H), 2.37-2.18(m, 4H), 2.02-1.87(m, 1H), 1.55-1.41(m, 1H)
130	*(R)*-(1-methylpyrrolidin-3-yl)methyl (3',4'-dichloro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$) δ 8.01-7.99(m, 1H), 7.54-7.51(d, 1H, *J*=8Hz), 7.46(m, 1H), 7.38-7.34(m, 1H), 7.21-7.11(m, 2H), 6.46(s, 1H), 4.09-3.98(m, 2H), 2.63-2.59(t, 1H, *J*=17.2Hz), 2.54-2.47(m, 3H), 2.36-2.26(m, 4H), 2.00-1.93(m, 1H), 1.50-1.45(m, 1H)

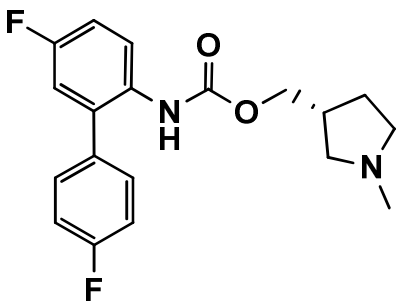
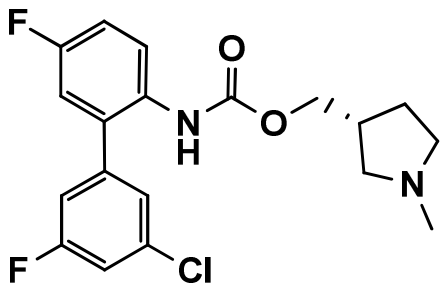
131	*(R)*-(1-methylpyrrolidin-3-yl)methyl (3',5'-dichloro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$) δ 8.01-7.97(m, 1H), 7.43-7.35(m, 2H), 7.26-7.25(m, 2H), 7.18-7.11(m, 2H), 6.46(s, 1H), 4.10-3.99(m, 2H), 2.67-2.61(t, 1H, *J*=17.2Hz), 2.57-2.50(m, 3H), 2.38-2.28(m, 4H), 2.01-1.93(m, 1H), 1.52-1.48(m, 1H)
132	*(R)*-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-5'-fluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$) δ 8.01-7.99(m, 1H), 7.39-7.35(m, 1H), 7.18-7.11(m, 3H), 6.99-6.97(m, 1H), 6.48(s, 1H), 4.10-3.99(m, 2H), 2.63-2.59(t, 1H, *J*=17.2Hz), 2.53-2.48(m, 3H), 2.36-2.27(m, 4H), 2.00-1.92(m, 1H), 1.51-1.46(m, 1H)

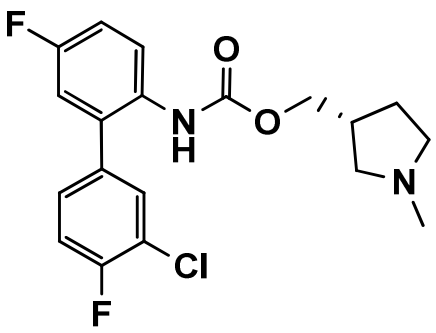
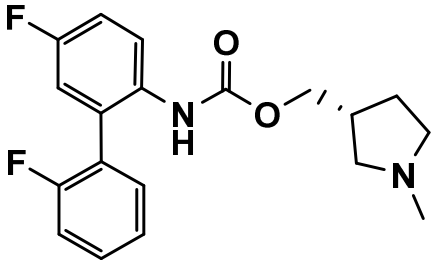
133	*(R)*-(1-methylpyrrolidin-3-yl)methyl (5-fluoro-3'-amino-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$) δ 8.03(m, 1H), 7.25-7.21(m, 1H), 7.03-6.98(m, 1H), 6.92-6.90(m, 1H), 6.72-6.61(m, 3H), 4.08-3.97(m, 2H),3.80(s, 1H), 2.66-2.62(t, 1H, J=17.2Hz), 2.53-2.46(m, 3H), 2.33-2.28(m, 4H), 2.01-1.93(m, 1H), 1.51-1.48(m, 1H)
134	*(R)*-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-5-fluoro-5'-hydroxy-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$) δ 7.67(m, 1H), 7.06-7.01(m, 1H), 6.97-6.94(m, 3H), 6.73-6.72(m, 1H), 6.54(s, 1H), 4.35-4.05(m, 2H), 3.01-3.00(m, 1H), 2.89-2.88(m, 1H), 2.59-2.57(m, 2H), 2.47-2.41(m, 4H), 1.97-1.96(m, 1H), 1.80(m, 1H)

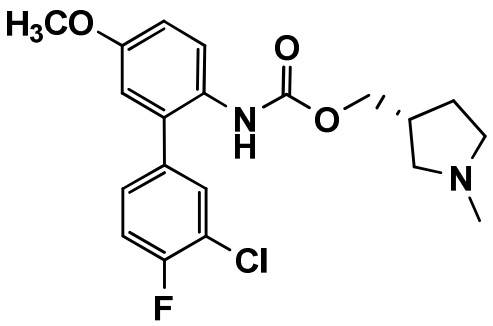
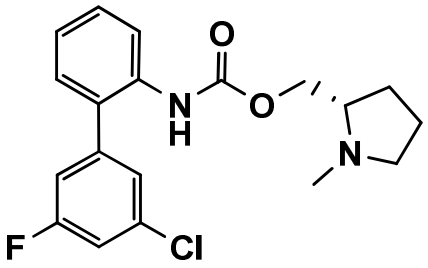
135	*(R)*-(1-methylpyrrolidin-3-yl)methyl (3',5'-dichloro-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$) δ 7.85(s, 1H), 7.41-7.40(t, 1H, *J*=4.0Hz), 7.23(s, 2H), 7.10-7.05(m, 2H), 6.93-6.90(m, 2H), 6.36(s, 1H), 4.09-3.99(m, 2H), 2.63-2.59(t, 1H, J=17.2Hz), 2.56-2.45(m, 3H), 2.32-2.28(m, 4H), 2.01-1.93(m, 1H), 1.50-1.46(m, 1H)
136	*(R)*-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-4'-fluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$) δ 8.03-7.98(m, 1H), 7.41-7.34(m, 2H), 7.26-7.21(m, 2H), 7.17-7.10(m, 2H), 6.49(s, 1H), 4.09-3.98(m, 2H), 2.63-2.59(t, 1H, *J*=17.2Hz), 2.51-2.46(m, 3H), 2.36-2.26(m, 4H), 2.00-1.91(m, 1H), 1.51-1.46(m, 1H)

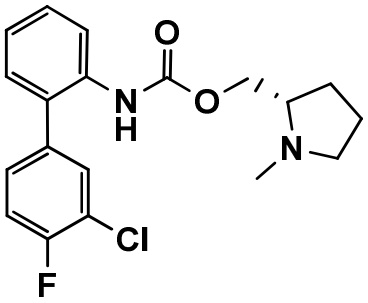
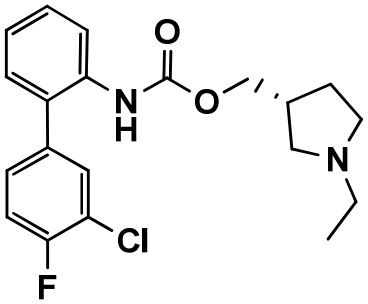
137	*(R)*-(1-methylpyrrolidin-3-yl)methyl (3'-hydroxy-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.95-7.81(m, 1H), 7.40-7.19(m, 3H), 7.18-7.06(m, 1H), 6.89-6.65(m, 4H), 4.34-4.18(m, 1H), 4.09-3.94(m, 1H), 2.89-2.51(m, 5H), 2.42(s, 3H), 2.07-1.95(m, 1H), 1.78-1.60(m, 1H)
138	*(R)*-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-5'-(trifluoromethyl)-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$) δ 7.96-7.94(m, 1H), 7.63(s, 1H), 7.55-7.52(m, 2H), 7.42-7.37(m, 2H), 7.21-7.17(m, 2H), 6.40(s, 1H), 4.09-3.99(m, 2H), 2.64-2.60(t, 1H, *J*=17.2Hz), 2.55-2.47(m, 3H), 2.36-2.31(m, 4H), 2.00-1.91(m, 1H), 1.51-1.46(m, 1H)

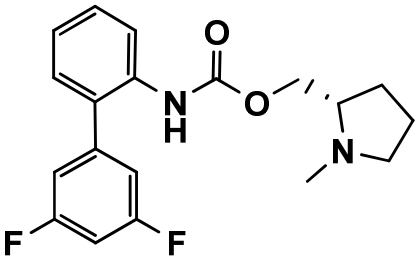
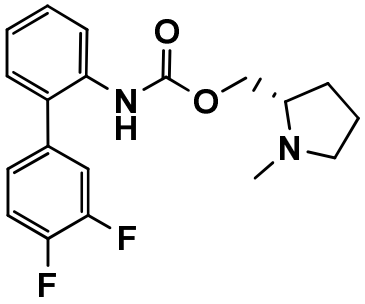
139	*(R)*-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-5-fluoro-5'-methoxy-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$) δ 7.97(m, 1H), 7.07-7.03(m, 1H), 6.94-6.89(m, 2H), 6.74-6.73(m, 1H), 6.45(s, 1H), 4.08-3.99(m, 2H), 3.83-3.79(m, 3H), 2.63-2.59(t, 1H, *J*=17.2Hz), 2.54-2.47(m, 3H), 2.36-2.27(m, 4H), 2.00-1.91(m, 1H), 1.49-1.45(m, 1H)
140	*(R)*-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-5-fluoro-5'-(trifluoromethyl)-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$) δ 7.82(m, 1H), 7.65(s, 1H), 7.54-7.51(m, 2H), 7.13-7.08(m, 1H), 6.96-6.93(m, 2H), 6.34(s, 1H), 4.07-3.97(m, 2H), 2.60-2.56(t, 1H, *J*=17.2Hz), 2.53-2.43(m, 3H), 2.34-2.35(m, 4H), 1.98-1.90(m, 1H), 1.49-1.44(m, 1H)

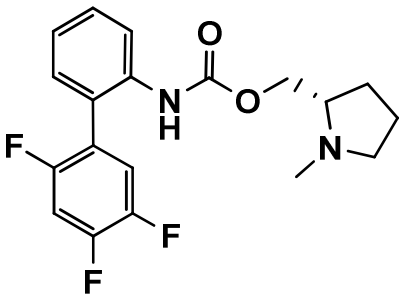
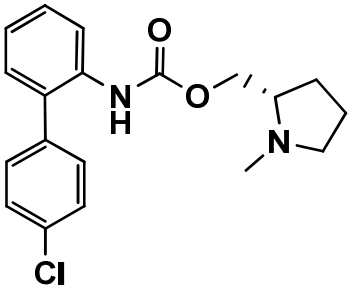
141	*(R)*-(1-methylpyrrolidin-3-yl)methyl (4',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$) δ 7.93(m, 1H), 7.31-7.29(m, 2H), 7.23-7.13(m, 2H), 7.06-7.01(m, 1H), 6.91-6.89(m, 1H), 6.42(s, 1H), 4.07-3.96(m, 2H), 2.61-2.56(t, 1H, *J*=17.2Hz), 2.53-2.43(m, 3H), 2.35-2.25(m, 4H), 2.00-1.89(m, 1H), 1.51-1.41(m, 1H)
142	*(R)*-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-5,5'-difluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$) δ 7.85(m, 1H), 7.14-7.13(m, 2H), 7.10-7.05(m, 1H), 6.98-6.96(m, 1H), 6.93-6.90(m, 1H), 6.43(s, 1H), 4.09-3.99(m, 2H), 2.65-2.60(t, 1H, *J*=17.2Hz), 2.55-2.47(m, 3H), 2.36-2.31(m, 4H), 2.02-1.95(m, 1H), 1.52-1.47(m, 1H)

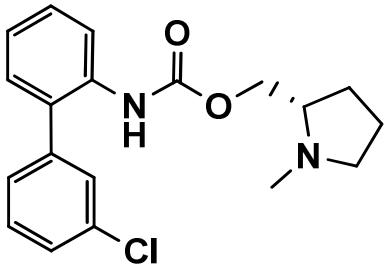
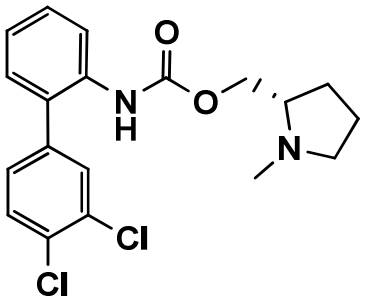
143	*(R)*-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-4',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$) δ 7.85(m, 1H), 7.40-7.38(m, 1H), 7.26-7.19(m, 2H), 7.08-7.03(m, 1H), 6.91-6.88(m, 1H), 6.34(s, 1H), 4.08-3.97(m, 2H), 2.61-2.57(t, 1H, *J*=17.2Hz), 2.55-2.47(m, 3H), 2.36-2.25(m, 4H), 2.00-1.90(m, 1H), 1.51-1.44(m, 1H)
144	*(R)*-(1-methylpyrrolidin-3-yl)methyl (2',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$) δ 8.05(m, 1H), 7.44-7.40(m, 1H), 7.31-7.23(m, 2H), 7.21-7.17(m, 2H), 6.98-6.96(m, 1H), 4.13-4.07(m, 2H), 3.10-3.08(m, 1H), 2.49-2.45(m, 1H), 2.39(s, 3H), 2.29-2.21(m, 1H), 1.95-1.59(m, 4H)

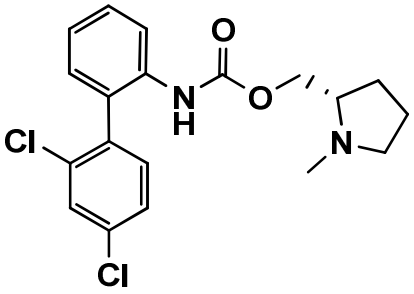
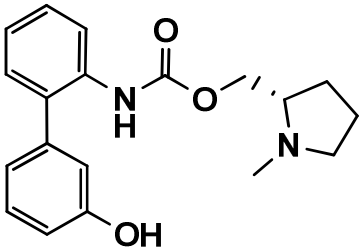
147	*(R)*-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-4'-fluoro-5-methoxy-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$) δ 7.70(s, 1H), 7.44-7.42(d, 1H, *J*=7.2Hz), 7.26-7.20(m, 2H), 6.93-6.90(m, 1H), 6.75(m, 1H), 6.66(s, 1H), 4.15-4.00(m, 2H), 3.81(s, 3H), 3.42-3.40(m, 1H), 2.81-2.47(m, 2H), 2.34(s, 3H), 2.06-1.60(m, 4H)
148	*(S)*-(1-methylpyrrolidin-2-yl)methyl (3'-chloro-5'-fluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$) δ 7.92(s, 1H), 7.43-7.27(m, 2H), 7.23-7.08(m, 3H), 7.03-6.95(m, 1H), 6.79(s, 1H), 4.33-4.19(m, 2H), 3.28-3.26(m, 1H), 2.75(m, 1H), 2.49-2.28(m, 4H), 1.98-1.59(m, 4H)

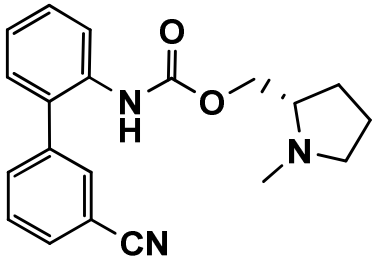
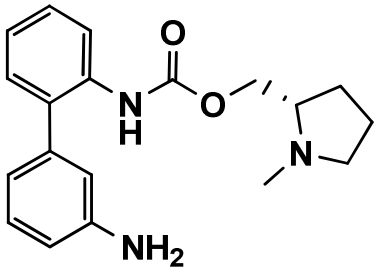
149	*(S)*-(1-methylpyrrolidin-2-yl)methyl (3'-chloro-4'-fluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$) δ 7.90(s, 1H), 7.39-7.31(m, 2H), 7.22-7.05(m, 3H), 7.03-6.97(m, 1H), 6.72(s, 1H), 4.26-4.11(m, 2H), 3.19-3.14(m, 1H), 2.70-2.64(m, 1H), 2.42-2.30(m, 4H), 1.99-1.58(m, 4H)
150	*(R)*-(1-ethylpyrrolidin-3-yl)methyl (3'-chloro-4'-fluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.97(s, 1H), 7.41-7.33(m, 2H), 7.23-7.21(m, 2H), 7.16-7.10(m, 2H), 6.60(s, 1H), 4.10-4.01(m, 2H), 2.74-2.72(m, 1H), 2.65-2.45 (m, 5H), 2.37-2.34(m, 1H), 2.02-1.93(m, 1H), 1.57-1.49(m, 1H), 1.11(t, 3H, *J*=7.2Hz)

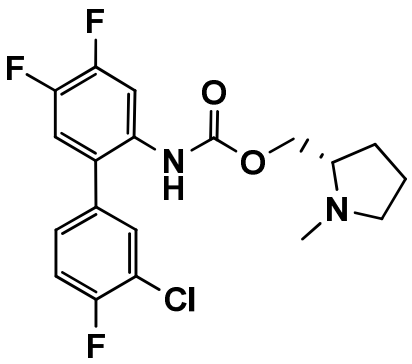
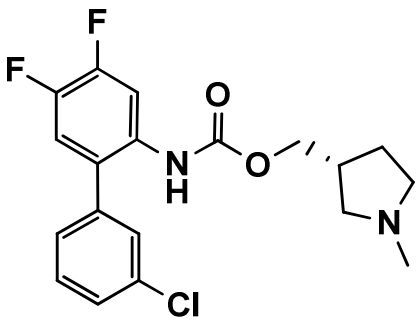
161	*(S)*-(1-methylpyrrolidin-2-yl)methyl (3',5'-difluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.02-8.00(m, 1H), 7.37-7.25(m, 2H), 7.17-7.08(m, 2H), 6.90-6.78(m, 2H), 6.60(s, 1H), 4.23-4.03(m, 2H), 3.08-2.99(m, 1H), 2.51-2.36(m, 1H), 2.34(s, 3H), 2.29-2.15(m, 1H), 1.99-1.54(m, 4H)
162	*(S)*-(1-methylpyrrolidin-2-yl)methyl (3',4'-difluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.10-8.08(d, 1H, *J*=8.0Hz), 7.39-7.10(m, 3H), 6.92-6.83(m, 1H), 6.66-6.61(m, 1H), 6.59(s, 1H), 6.52-6.48(m, 1H), 4.28-4.08(m, 2H), 3.14-3.07(m, 1H), 2.59-2.47(m, 1H), 2.38(s, 3H), 2.33-2.21(m, 1H), 2.02-1.58(m, 4H)

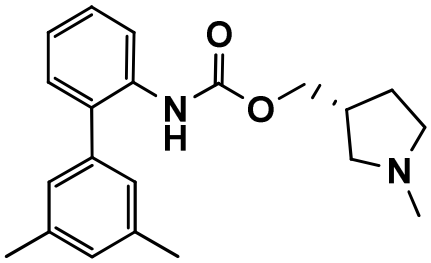
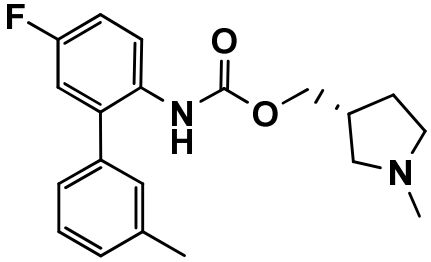
163	*(S)*-(1-methylpyrrolidin-2-yl)methyl (2',4',5'-trifluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.11-8.09(d, 1H, *J*=8.0Hz), 7.33-7.23(m, 2H), 7.18-7.14(m, 1H), 7.13-7.10(m, 1H), 6.91-6.87(m, 1H), 6.48(s, 1H), 4.26-4.06(m, 2H), 3.12-3.08(m, 1H), 2.53-2.43(m, 1H), 2.37(s, 3H), 2.30-2.20(m, 1H), 1.98-1.63(m, 4H)
164	*(S)*-(1-methylpyrrolidin-2-yl)methyl (4'-chloro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.02-8.00(d, 1H, *J*=7.6Hz), 7.30-7.23(m, 2H), 7.21-7.09(m, 1H), 7.06-7.04(d, 2H, *J*=8.8Hz), 6.77-6.75(d, 2H, *J*=8.8Hz), 6.60(s, 1H), 4.28-4.08(m, 2H), 3.13-3.06(m, 1H), 2.57-2.45(m, 1H), 2.38(s, 3H), 2.33-2.22(m, 1H), 1.99-1.59(m, 4H)

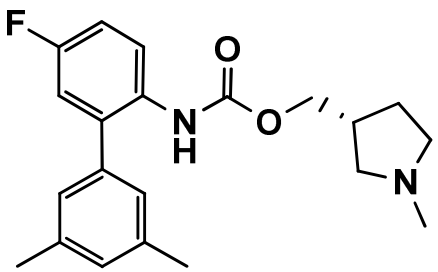
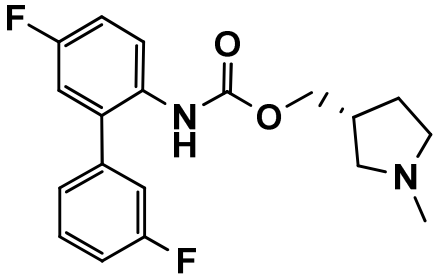
165	*(S)*-(1-methylpyrrolidin-2-yl)methyl (3'-chloro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.12-7.99(m, 1H), 7.49-7.28(m, 4H), 7.28-7.02(m, 3H), 6.62-6.49(bs, 1H), 4.26-3.99(m, 2H), 3.12-2.98(m, 1H), 2.53-2.40(m, 1H), 2.36(s, 3H), 2.27-2.14(m, 1H), 1.98-1.81(m, 1H) 1.80-1.55(m, 2H)
166	*(S)*-(1-methylpyrrolidin-2-yl)methyl (3',4'-dichloro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.10-8.08(d, 1H, *J*=8.0Hz), 7.65-7.61(dd, 2H, *J*=12.0Hz), 7.55-7.42(m, 3H), 7.19-7.10(m, 1H), 6.57(s, 1H), 4.27-4.07(m, 2H), 3.13-3.05(m, 1H), 2.57-2.47(m, 1H), 2.38(s, 3H), 2.33-2.21(m, 1H), 2.01-1.60(m, 4H)

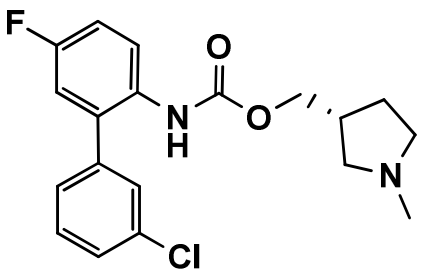
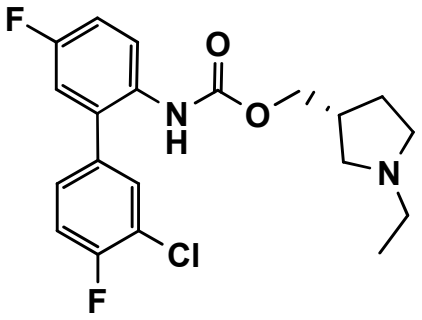
167	*(S)*-(1-methylpyrrolidin-2-yl)methyl (2',4'-dichloro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.11-8.09(d, 1H, *J*=8.0Hz), 7.39-7.08(m, 5H), 6.92-6.88(m, 1H), 6.32(s, 1H), 4.27-4.12(m, 2H), 3.14-3.08(m, 1H), 2.57-2.53(m, 1H), 2.44(s, 3H), 2.31-2.21(m, 1H), 2.01-1.58(m, 4H)
168	*(S)*-(1-methylpyrrolidin-2-yl)methyl (3'-hydroxy-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.98-7.96(d, 1H, *J*=7.6Hz), 7.30-7.26(m, 1H), 7.22-7.14(m, 2H), 7.11-7.05(m, 1H), 6.81-6.77(t, 2H, *J*=16.8Hz), 6.73-6.71(t, 1H, *J*=4.4Hz), 4.23-4.08(m, 2H), 3.09-3.05(m, 1H), 2.57-2.50(m, 1H), 2.38(s, 3H), 2.36-2.22(m, 1H), 1.99-1.59(m, 4H)

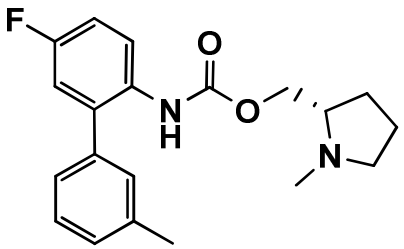
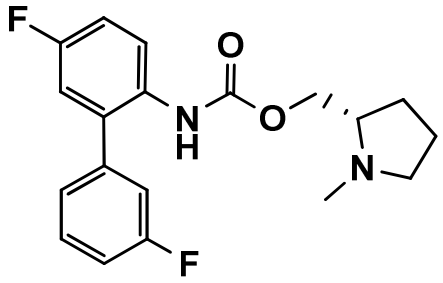
169	*(S)*-(1-methylpyrrolidin-2-yl)methyl (3'-cyano-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.02-8.00(d, 1H, *J*=7.2Hz), 7.68-7.65(m, 2H), 7.60-7.54(m, 2H), 7.41-7.37(m, 1H), 7.17-7.16(d, 2H, *J*=4.4Hz), 6.42(s, 1H), 4.22-4.04(m, 2H), 3.06-3.02(m, 1H), 2.35(s, 3H), 2.30-2.24(q, 1H, *J*=16.0Hz), 2.02-1.55(m, 4H)
170	*(S)*-(1-methylpyrrolidin-2-yl)methyl (3'-amino-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.09-8.07(d, 1H, *J*=7.6Hz), 7.41-7.15(m, 4H), 7.08-7.00(m, 1H), 6.94(s, 2H), 6.82(s, 1H), 6.42(s, 1H), 6.69-6.66(t, 1H, *J*=14.8Hz), 6.61(s, 1H), 4.24-4.03(m, 2H), 3.11-3.02(m, 1H), 2.56-2.44(m, 1H), 2.40(s, 3H), 2.30-2.17(m, 1H), 1.96-1.58(m, 4H)

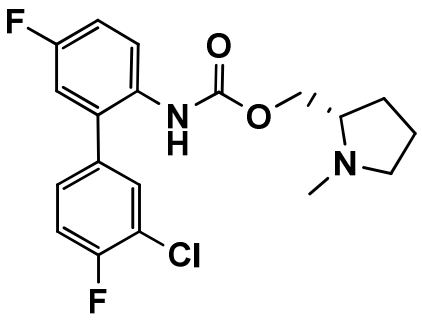
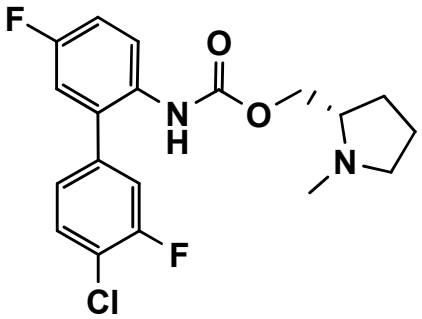
181	*(S)*-(1-methylpyrrolidin-2-yl)methyl (3'-chloro-4,4',5-trifluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.02(m, 1H), 7.39-7.38(dd, 1H, *J*=4.4Hz), 7.27-7.25(m, 1H), 7.21-7.18(m, 1H), 7.01-6.98(dd, 1H, *J*=7.2Hz), 6.50(s, 1H), 4.23-4.10(m, 2H), 3.10-3.07(m, 1H), 2.50-2.46(m, 1H), 2.39(s, 3H), 2.28-2.23(m, 1H), 1.95-1.60(m, 4H)
182	*(R)*-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-4,5-difluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.00(m, 1H), 7.41-7.39(m, 1H), 7.28-7.23(m, 1H), 7.20-7.19(m, 1H), 7.00-6.96(dd, 1H, *J*=7.2Hz), 6.61(s, 1H), 4.22-4.10(m, 2H), 3.11-3.09(m, 1H), 2.50-2.46(m, 1H), 2.38(s, 3H), 2.29-2.21(m, 1H), 1.95-1.59(m, 4H)

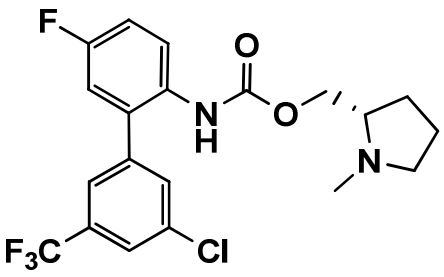
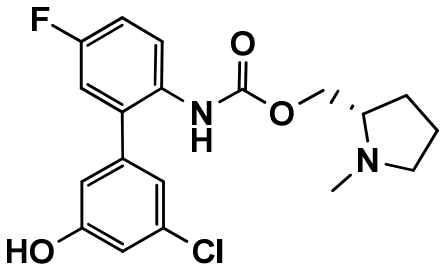
191	*(R)*-(1-methylpyrrolidin-3-yl)methyl (3',5'-dimethyl-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.07-8.05(m, 1H), 7.33-7.30(m, 1H), 7.18-7.16(m, 1H), 7.10-7.06(m, 1H), 7.03(s, 1H), 6.95(s, 2H), 6.69(s, 1H), 4.09-3.99(m, 2H), 2.69-2.65(t, 1H, *J*=17.2Hz), 2.59-2.40(m, 3H), 2.35-2.27(m, 4H), 2.01-1.95(m, 1H), 1.54-1.48(m, 1H)
192	*(R)*-(1-methylpyrrolidin-3-yl)methyl (5-fluoro-3'-methyl-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.07-7.89(bs, 1H), 7.40-7.29(m, 1H), 7.29-7.19(m, 1H), 7.19-7.07(m, 2H), 7.07-6.97(m, 1H), 6.97-6.86(m, 1H), 6.61-6.45(bs, 1H), 4.13-3.92(m, 2H), 2.68-2.43(m, 4H), 2.39(s, 3H), 2.36-2.20(m, 4H), 2.04-1.88(m, 1H), 1.53-1.39(m, 1H)

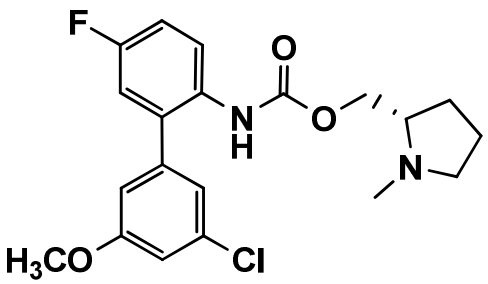
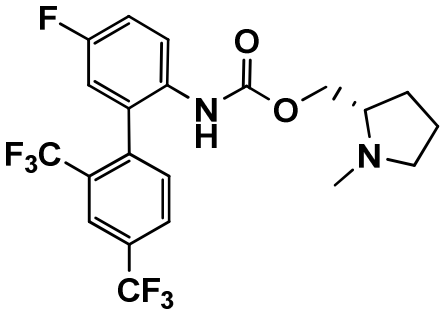
193	*(R)*-(1-methylpyrrolidin-3-yl)methyl (5-fluoro-3',5'-dimethyl-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.98(m, 1H), 7.89-7.04(m, 6H), 6.55(s, 1H), 4.08-3.97(m, 2H), 2.63-2.59(t, 1H, *J*=17.2Hz), 2.53-2.40(m, 2H), 2.35-2.31(m, 3H), 2.31(s, 1H), 2.27-2.23(m, 1H), 1.99-1.92(m, 1H), 1.51-1.44(m, 1H)
194	*(R)*-(1-methylpyrrolidin-3-yl)methyl (3',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.95(m, 1H), 7.47-7.41(m, 2H), 7.12-7.04(m, 4H), 6.93-6.91(m, 1H), 6.48(s, 1H), 4.08-3.97(m, 2H), 2.63-2.59(t, 1H, *J*=17.2Hz), 2.52-2.49(m, 3H), 2.34-2.27(m, 4H), 2.00-1.93(m, 1H), 1.50-1.46(m, 1H)

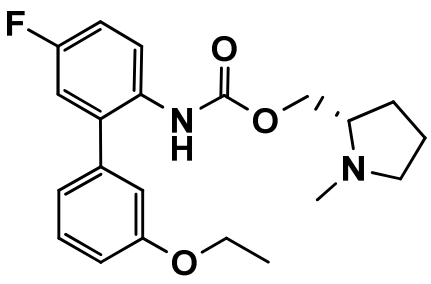
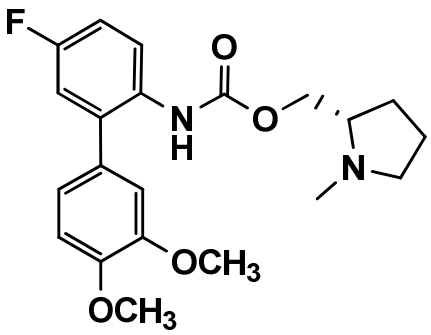
195	*(R)*-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.92(m, 1H), 7.42-7.33(m, 2H), 7.23-7.21(m, 2H), 7.07-7.03(m, 1H), 6.93-6.90(m, 1H), 6.27(s, 1H), 4.08-3.97(m, 2H), 2.65-2.60(t, 1H, *J*=17.2Hz), 2.53-2.45(m, 3H), 2.35-2.29(m, 4H), 2.01-1.93(m, 1H), 1.53-1.46(m, 1H)
196	*(R)*-(1-ethylpyrrolidin-3-yl)methyl (3'-chloro-4',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.87(s, 1H), 7.40-7.38(m, 1H), 7.25-7.21(m, 2H), 7.08-7.03(m, 1H), 6.90(dd, 1H, *J*=8.8Hz, *J*=2.8Hz), 6.50(s, 1H), 4.09-3.98(m, 2H), 2.72(t, 1H, *J*=8.8Hz), 2.64-2.44(m, 5H), 2.36-2.33(m, 1H), 2.02-1.92(m, 1H), 1.55-1.47(m, 1H), 1.09(t, 3H, *J*=7.2Hz)

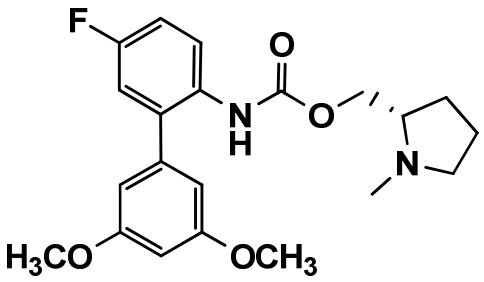
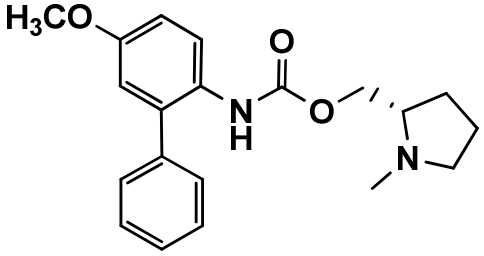
201	*(S)*-(1-methylpyrrolidin-2-yl)methyl (5-fluoro-3'-methyl-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.82(s, 1H), 7.30-7.11(m, 3H), 7.01-6.85(m, 3H), 4.30-4.07(m, 2H), 3.24-3.21(m, 1H), 2.43(s, 3H), 2.35(s, 3H), 1.96-1.84(m, 2H), 1.79-1.72(m, 2H), 1.67-1.51(m, 2H)
202	*(S)*-(1-methylpyrrolidin-2-yl)methyl (3',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.97(s, 1H), 7.43-7.39(m, 1H), 7.11-7.03(m, 4H), 6.91(d, 1H, *J*=8.4Hz), 6.48(s, 1H), 4.19-4.04(m, 2H), 3.05-3.02(m, 1H), 2.35(s, 3H), 2.26-2.17(m, 2H), 1.88-1.83(m, 2H), 1.71-1.69(m, 2H)

211	*(S)*-(1-methylpyrrolidin-2-yl)methyl (3'-chloro-4',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.05(m, 1H), 7.57-7.48(m, 1H), 7.22-7.14(m, 2H), 7.12-7.00(m, 2H), 6.61(s, 1H), 4.23-4.16(m, 2H), 3.22-3.10(m, 1H), 2.58-2.47(m, 1H), 2.38(s, 3H), 2.35-2.30(m, 3H), 1.98-1.60(m, 4H)
212	*(S)*-(1-methylpyrrolidin-2-yl)methyl (4'-chloro-3',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.39-7.31(m, 3H), 7.20-7.00(m, 2H), 6.98-6.88(d, 1H, *J*=2.8Hz), 4.34-4.23(m, 2H), 3.45(m, 1H), 3.16(m, 1H), 2.57-2.54(m, 4H), 2.11-1.70(m, 4H).

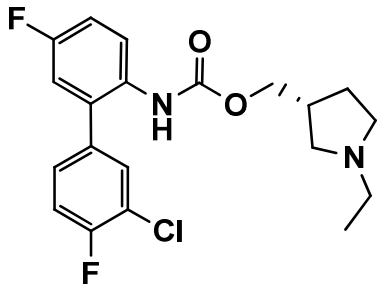
215	*(S)*-(1-methylpyrrolidin-2-yl)methyl (3'-chloro-5-fluoro-5'-(trifluoromethyl)-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.96(s, 1H), 7.79(s, 1H), 7.61(s, 1H), 7.50-7.47(d, 1H, *J*=11.6Hz), 7.11-7.06(m, 1H), 6.94-6.91(m, 1H), 6.58(s, 1H), 4.27-4.11(m, 2H), 3.22-3.17(m, 1H), 2.67-2.66(m, 1H), 2.42-2.32(m, 4H), 2.02-1.60(m, 4H)
216	*(S)*-(1-methylpyrrolidin-2-yl)methyl (3'-chloro-5-fluoro-5'-hydroxy-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.82(s, 1H), 7.02-6.64(m, 5H), 4.17-4.09(m, 2H), 3.10-3.06(m, 1H), 2.53(m, 1H), 2.37(s, 3H), 2.34-2.21(m, 1H), 1.96-1.62(m, 4H)

217	*(S)*-(1-methylpyrrolidin-2-yl)methyl (3'-chloro-5-fluoro-5'-methoxy-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.94(s, 1H), 7.66-7.44(m, 4H), 6.91-6.89(d, 1H, *J*=8.4Hz), 6.62(s, 1H), 4.23-4.08(m, 2H), 3.86-3.85(m, 3H), 3.11(m, 1H), 2.53(m, 1H), 2.34(s, 3H), 2.29-2.28(m, 1H), 1.93-1.63(m, 4H)
218	*(S)*-(1-methylpyrrolidin-2-yl)methyl (5-fluoro-2',4'-bis(trifluoromethyl)-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 8.11(m, 1H), 7.44-7.36(m, 1H), 7.20-7.17(m, 2H), 7.10-6.99(m, 2H), 6.54(s, 1H), 4.27-4.21(m, 2H), 3.31-3.15(m, 1H), 2.44-2.40(m, 1H), 2.39(s, 3H), 2.30-2.25(m, 3H), 2.01-1.55(m, 4H)

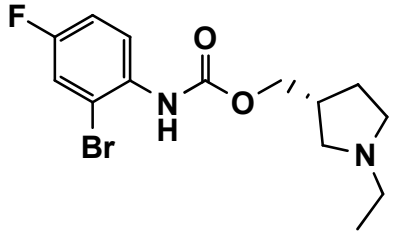
219	*(S)*-(1-methylpyrrolidin-2-yl)methyl (3'-ethoxy-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.58-7.53(m, 1H), 7.48-7.44(m, 2H), 7.29-7.15(m, 2H), 6.95-6.92(m, 1H), 6.84-6.79(m, 1H), 4.27-4.23(m, 2H), 4.14-4.07(q, 2H, *J*=6.8Hz), 3.28(m, 1H), 2.89(m, 1H), 2.50(m, 4H), 1.98-1.59(m, 4H), 1.46-1.40(t, 3H, *J*=14.0Hz)
220	*(S)*-(1-methylpyrrolidin-2-yl)methyl (5-fluoro-3',4'-dimethoxy-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.65-7.61(m, 1H), 7.54-7.52(m, 1H), 7.47-7.43(m, 2H), 7.33(m, 1H), 6.68-6.65(m, 1H), 4.29-4.15(m, 2H), 3.87(s, 6H), 3.28-3.25(m, 1H), 2.78-2.70(m, 1H), 2.48-2.35(m, 4H), 1.98-1.63(m, 4H)

221	*(S)*-(1-methylpyrrolidin-2-yl)methyl (5-fluoro-3',5'-dimethoxy-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.93(s, 1H), 7.03-6.91(m, 4H), 6.46-6.42(m, 1H), 6.38(s, 1H), 4.22-4.08(m, 2H), 3.77(s, 6H), 3.15(m, 1H), 2.61(m, 1H), 2.41(s, 3H), 2.36-2.24(m, 1H), 1.93-1.58(m, 4H)
222	*(S)*-(1-methylpyrrolidin-2-yl)methyl (5-methoxy-[1,1'-biphenyl]-2-yl)carbamate 	^{1}H NMR($CDCl_3$): δ 7.81(s, 1H), 7.43-7.28(m, 4H), 7.20-7.19(d, 1H, *J*=4.4Hz), 6.87-6.86(dd, 1H, *J*=9.2Hz), 6.76-6.75(d, 1H, *J*=2.8Hz), 6.61(s, 1H), 4.20-4.06(m, 2H), 3.77(s, 3H), 3.13-3.10(m, 1H), 2.58-2.43(m, 1H), 2.38(s, 3H), 2.32-2.25(m, 1H), 1.92-1.56(m, 4H)

[Example 196] Synthesis of *(R)*-(1-ethylpyrrolidin-3-yl)methyl (3'-chloro-4',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate



[Step 1] Synthesis of *(R)*-(1-ethylpyrrolidin-3-yl)methyl (2-bromo-4-fluorophenyl)carbamate



2-Bromo-4-fluorobenzoic acid (3g, 13.70mmol) and *(R)-tert*-butyl 3-(hydroxymethyl)pyrrolidine-1-carbaxylate (3.31g, 16.44mmol) were used as starting materials to prepare titled compound (4.5g, 79%) in the same manner as Synthesis Example F.

^{1}H NMR ($CDCl_3$): δ 8.00(s, 1H), 7.28-7.24(m, 1H), 7.05-7.00(m, 1H), 4.21-4.10(m, 2H), 3.06-3.03(m, 1H), 2.90-2.87(m, 1H), 2.84-2.71(m, 5H), 2.17-2.12(m, 1H), 1.76-1.71(m, 1H), 1.24(t, 3H, J=7.2Hz)

[Experimental Example 3] Experiment on rhythmic bladder contractions in rats (*in vivo*)

Female Sprague-Dawley rat was halothane-anesthetized, and a polyethylene catheter was inserted through urethra lay down straight and fixed. Urine in bladder was excreted through the catheter by gently massaging abdomen of the rat, and then removed. A three-way stopcock was connected to the catheter and a pressure transducer was connected to one side of the three-way stopcock to measure pressure, and a syringe was installed at the other side to inject 37℃ of saline solution. The saline solution was slowly injected until regular bladder contractions occurred repeatedly. When regular bladder contractions occurred stably, test compounds were administered intravenously through the tail vein. Inhibitory effect of the test compounds was evaluated by measuring degree of amplitude reduction of bladder contractions. The compounds of the present invention significantly reduced amplitude of bladder contractions when the compounds were administered at least 0.3 mg/kg or more.

[Table 29] Rhythmic bladder contraction in rats

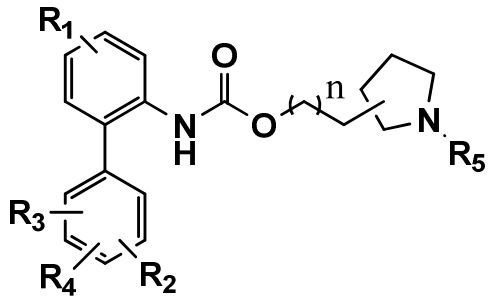
Example	Inhibition of Rhythmic bladder contraction in rats (%, 0.3 mpk)	Example	Inhibition of Rhythmic bladder contraction in rats (%, 0.3 mpk)
1	26.1±5.1	117	15.4±0.1
2	20.1±3.1	121	31.4±6.1
3	15.9±0.9	124	21.2±0.7
4	22.3±4.9	125	22.6±5.8
6	28.5±4.6	128	15.1±3.4
8	23.2±2.3	129	15.7±1.4
9	9.6±1.6	131	17.8±2.5
15	25.6±2.2	136	33.2±4.0
17	27.9±6.1	142	15.1±3.4
19	12.8±3.0	143	24.3±5.5
22	16.7±1.7	145	13.1±3.0
26	11.0±2.5	146	8.2±2.9
34	20.1±1.8	150	25.1±2.5
43	8.9±2.3	160	15.5±2.4
52	10.8±0.8	165	34.5±2.5
53	28.0±5.0	166	10.2±1.7
59	11.6±1.9	172	12.4±2.7
66	12.0±1.4	177	11.3±2.2
70	9.7±4.1	180	6.3±1.3
73	10.0±1.0	181	18.1±2.6
78	17.9±2.1	192	18.6±3.6
89	33.9±3.5	194	24.6±2.6
90	27.4±1.9	195	20.3±2.6
91	25.2±2.5	197	32.8±9.7
93	27.3±1.9	198	26.3±2.4
95	15.7±0.8	199	27.8±4.5
99	16.3±1.0	201	9.1±3.0

【CLAIMS】

【Claim 1】

A biphenyl derivative represented by Formula 1, a stereoisomer thereof, or a pharmaceutically acceptable salt thereof:

[Formula 1]



wherein

R_1 is hydrogen, halogen, hydroxy, substituted or unsubstituted C_1-C_6 alkyl, or C_1-C_6 alkoxy;

R_2, R_3 and R_4 are each independently hydrogen, halogen, substituted or unsubstituted amino, nitro, cyano, hydroxy, substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted C_1-C_6 alkoxy, or $-C(O)R_6$;

R_5 is hydrogen or C_1-C_6 alkyl;

n is 0 or 1; and

R_6 is hydrogen or amino.

【Claim 2】

The biphenyl derivative, stereoisomer thereof or pharmaceutically acceptable salt thereof according to claim 1, wherein R_1 is hydrogen or halogen; R_2, R_3 and R_4 are each

independently hydrogen, halogen, or C_1-C_6 alkyl; and R_5 is C_1-C_6 alkyl.

【Claim 3】

The biphenyl derivative, stereoisomer thereof or pharmaceutically acceptable salt thereof according to claim 1, wherein R_1 is hydrogen; R_2, R_3 and R_4 are independently hydrogen or halogen; R_5 is C_1-C_6 alkyl; and n is 0 or 1.

【Claim 4】

The biphenyl derivative, stereoisomer thereof or pharmaceutically acceptable salt thereof according to claim 1 selected from the group consisting of the following compounds:

2-(1-methylpyrrolidin-2-yl)ethyl (4'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3',5'-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3',4',5'-trifluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (4'-methoxy-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl [1,1'-biphenyl]-2-ylcarbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (4'-chloro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3'-chloro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3',5'-dichloro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (4'-trifluoromethoxy-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (4'-nitro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3'-trifluoromethyl-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (4'-trifluoromethyl-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl ((3'-fluoro-4'-methyl)-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3'-methyl-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3'-ethoxy-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3'-chloro-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (4',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3',5,5'-trifluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (5-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (5-fluoro-3'-methyl-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (4-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3',4-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (4-methoxy-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (5-methyl-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3'-fluoro-5-methyl-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (4'-cyano-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3'-(3-hydroxypropyl)-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (4'-(dimethylamino)-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (4'-(tert-butyl)-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (2'-amino-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3'-amino-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (2'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (2'-chloro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (2'-hydroxy-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3'-tert-butyl-5'-methyl-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (4'-fluoro-3'-(trifluoromethyl)-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (4'-amino-3'-chloro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3'-hydroxy-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3'-chloro-4'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3',4',5-trifluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3',4'-dichloro-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3'-ethyl-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (5-fluoro-3',5'-dimethyl-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3'-amino-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (5-(trifluoromethyl)-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (4'-fluoro-5-(trifluoromethyl)-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3'-fluoro-5-(trifluoromethyl)-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3',5'-difluoro-5-(trifluoromethyl)-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3'-chloro-5-(trifluoromethyl)-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3'-chloro-5,5'-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3'-chloro-4',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (4'-chloro-3',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3',5'-dichloro-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3',5'-dichloro-4',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3'-chloro-5-fluoro-5'-hydroxy-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3'-chloro-5-fluoro-4'-hydroxy-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (5-fluoro-3',4'-dimethyl-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (5-methoxy-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3'-fluoro-5-methoxy-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3',5'-difluoro-5-methoxy-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3'-chloro-5-methoxy-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3',5'-dichloro-5-methoxy-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3'-chloro-4'-fluoro-5-methoxy-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (5-chloro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (5-chloro-3'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (5-chloro-4'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (5-chloro-3',5'-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3',5-dichloro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3',5,5'-trichloro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3',5-dichloro-5'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3',5-dichloro-4'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3'-fluoro-4'-formyl-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3',5'-difluoro-5-hydroxy-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3',5'-dichloro-5-hydroxy-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (3'-chloro-4'-fluoro-5-hydroxy-[1,1'-biphenyl]-2-yl)carbamate;

(R)-pyrrolidin-3-ylmethyl [1,1'-biphenyl]-2-ylcarbamate;

(S)-pyrrolidin-3-ylmethyl [1,1'-biphenyl]-2-ylcarbamate;

(R)-pyrrolidin-3-ylmethyl (3',5'-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-pyrrolidin-3-ylmethyl (3',5'-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-pyrrolidin-3-ylmethyl (5-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-pyrrolidin-3-ylmethyl (5-fluoro-3'-methyl-[1,1'-biphenyl]-2-yl)carbamate;

(R)-pyrrolidin-3-ylmethyl (3',5,5'-trifluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-pyrrolidin-3-ylmethyl (3',5,5'-trifluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-pyrrolidin-3-ylmethyl (5-methyl-[1,1'-biphenyl]-2-yl)carbamate;

(R)-pyrrolidin-3-ylmethyl (3'-fluoro-5-methyl-[1,1'-biphenyl]-2-yl)carbamate;

(S)-pyrrolidin-2-ylmethyl (4'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl [1,1'-biphenyl]-2-ylcarbamate;

(S)-(1-methylpyrrolidin-3-yl)methyl [1,1'-biphenyl]-2-ylcarbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3',5'-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-3-yl)methyl (3',5'-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-3-yl)methyl (5-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-3-yl)methyl (5-fluoro-3'-methyl-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3',5,5'-trifluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-3-yl)methyl (3',5,5'-trifluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (5-methyl-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3'-fluoro-5-methyl-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (4'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3'-methyl-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-3-yl)methyl (3'-methyl-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-ethylpyrrolidin-3-yl)methyl [1,1'-biphenyl]-2-ylcarbamate;

(S)-(1-ethylpyrrolidin-3-yl)methyl [1,1'-biphenyl]-2-ylcarbamate;

(R)-(1-ethylpyrrolidin-3-yl)methyl (3'-methyl-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-ethylpyrrolidin-3-yl)methyl (3'-methyl-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-ethylpyrrolidin-2-yl)methyl [1,1'-biphenyl]-2-ylcarbamate;

(S)-(1-isobutylpyrrolidin-2-yl)methyl [1,1'-biphenyl]-2-ylcarbamate;

(S)-(1-methylpyrrolidin-3-yl)methyl (3',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-2-yl)methyl [1,1'-biphenyl]-2-ylcarbamate;

(R)-(1-methylpyrrolidin-2-yl)methyl (3'-methyl-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-2-yl)methyl (5-fluoro-3'-methyl-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-isopropylpyrrolidin-2-yl)methyl [1,1'-biphenyl]-2-ylcarbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (4'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3',4'-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-3-yl)methyl (3'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-3-yl)methyl (3',5'-dichloro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-5'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-4'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-3-yl)methyl (5-fluoro-3',5'-dimethyl-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-5-fluoro-5'-hydroxy-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-3-yl)methyl (4',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-3-yl)methyl (3',5'-dichloro-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-3-yl)methyl (4'-chloro-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-3-yl)methyl (3',4'-dichloro-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-5,5'-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3',4'-dichloro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3',5'-dichloro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-5'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (5-fluoro-3'-amino-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-5-fluoro-5'-hydroxy-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3',5'-dichloro-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-4'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3'-hydroxy-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-5'-(trifluoromethyl)-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-5-fluoro-5'-methoxy-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-5-fluoro-5'-(trifluoromethyl)-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (4',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-5,5'-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-4',5-dlfluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (2',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3',5-dichloro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3',5-dichloro-4'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-4'-fluoro-5-methoxy-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3'-chloro-5'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3'-chloro-4'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-ethylpyrrolidin-3-yl)methyl (3'-chloro-4'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-isopropylpyrrolidin-3-yl)methyl (3'-chloro-4'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3'-(hydroxymethyl)-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3'-carbamoyl-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3'-amino-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3'-cyano-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (2'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (2',4'-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (2',3'-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-6'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3',5'-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3',4'-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (2',4',5'-trifluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (4'-chloro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3'-chloro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3',4'-dichloro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (2',4'-dichloro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3'-hydroxy-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3'-cyano-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3'-amino-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3',4',5-trifluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3',5,5'-trifluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (2',4',5,5'-tetrafluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3'-chloro-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (4'-chloro-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (2',4'-dichloro-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3',4'-dichloro-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3'-cyano-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3'-hydroxy-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (5-fluoro-3'-(trifluoromethyl)-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3'-chloro-4,4',5-trifluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-4,5-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (2',4'-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (2',3'-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (2',6'-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

2-(1-methylpyrrolidin-2-yl)ethyl (5'-chloro-2'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (2'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (2',4'-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (2',3'-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3'-chloro-6'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3',5'-dimethyl-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (5-fluoro-3'-methyl-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (5-fluoro-3',5'-dimethyl-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-methylpyrrolidin-3-yl)methyl (3'-chloro-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(R)-(1-ethylpyrrolidin-3-yl)methyl (3'-chloro-4',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl [1,1'-biphenyl]-2-ylcarbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (4'-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3'-methyl-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (5-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (5-fluoro-3'-methyl-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (4',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (4-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3',4-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (5-methyl-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3'-fluoro-5-methyl-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (5-fluoro-3',5'-dimethyl-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (4'-(tert-butyl)-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3'-chloro-5,5'-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3'-chloro-4',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (4'-chloro-3',5-difluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3'-amino-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (2',5-difluoro-3'-(trifluoromethyl)-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3'-chloro-5-fluoro-5'-(trifluoromethyl)-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3'-chloro-5-fluoro-5'-hydroxy-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3'-chloro-5-fluoro-5'-methoxy-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (5-fluoro-2',4'-bis(trifluoromethyl)-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3'-ethoxy-5-fluoro-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (5-fluoro-3',4'-dimethoxy-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (5-fluoro-3',5'-dimethoxy-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (5-methoxy-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3'-fluoro-5-methoxy-[1,1'-biphenyl]-2-yl)carbamate;

(S)-(1-methylpyrrolidin-2-yl)methyl (3'-chloro-5-methoxy-[1,1'-biphenyl]-2-yl)carbamate;

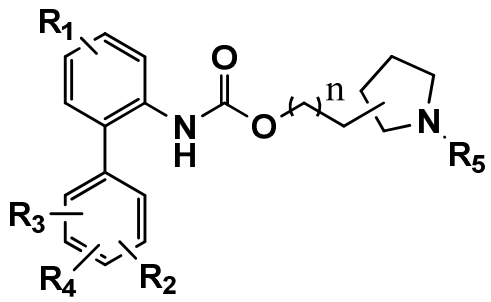
(S)-(1-methylpyrrolidin-2-yl)methyl (3',4'-dichloro-5-methoxy-[1,1'-biphenyl]-2-yl)carbamate; and

(S)-(1-methylpyrrolidin-2-yl)methyl (3',5'-dichloro-5-methoxy-[1,1'-biphenyl]-2-yl)carbamate.

【Claim 5】

A method for preparing a compound of Formula 1 or a pharmaceutically acceptable salt thereof:

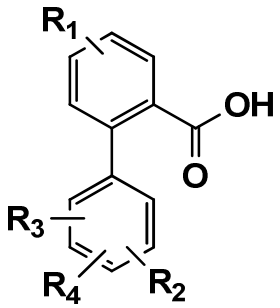
[Formula 1]



the method comprising a step of:

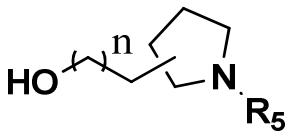
reacting a compound of Formula 2:

[Formula 2]



with a compound of Formula 3:

[Formula 3]



in the presence of a carbamate synthesis reagent, wherein:

the carbamate synthesis reagent is:

a mixture of diphenylphosphoryl azide (DPPA) and triethylamine; or,

a mixture of propylphosphonic anhydride (T3P), trimethylsilyl azide ($TMSN_3$) and triethylamine; or

a mixture of sodium azide (NaN_3), tetrabutylammonium bromide and zinc(II) triflate;

R_1 is hydrogen, halogen, hydroxy, substituted or unsubstituted C_1-C_6 alkyl, or C_1-C_6 alkoxy;

R_2, R_3 and R_4 are each independently hydrogen, halogen, substituted or unsubstituted amino, nitro, cyano, hydroxy, substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted C_1-C_6 alkoxy, or $-C(O)R_6$;

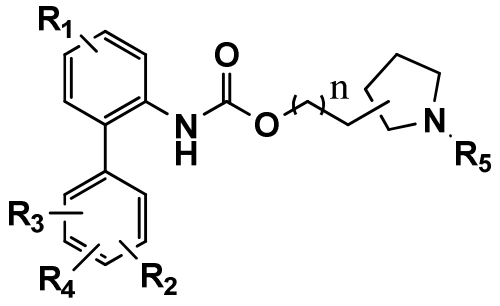
R_5 is hydrogen or C_1-C_6 alkyl; and

n is 0 or 1.

【Claim 6】

A method for preparing a compound of Formula 1 or a pharmaceutically acceptable salt thereof:

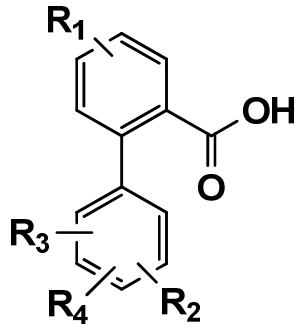
[Formula 1]



the method comprising the steps of:

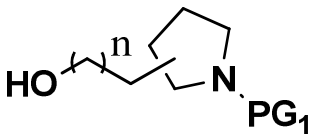
(a) reacting a compound of Formula 2:

[Formula 2]



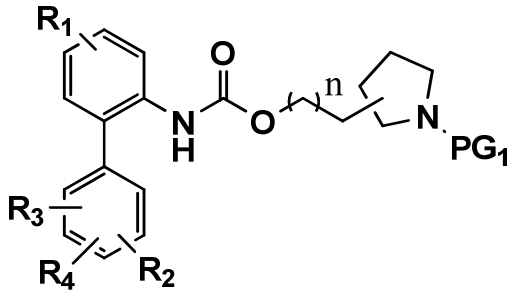
with a compound of Formula 3a:

[Formula 3a]



in the presence of a carbamate synthesis reagent to prepare a compound of Formula 4:

[Formula 4]



,

wherein:

the carbamate synthesis reagent is:

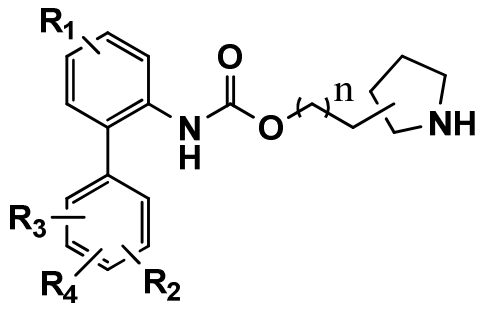
a mixture of diphenylphosphoryl azide (DPPA) and triethylamine; or

a mixture of propylphosphonic anhydride (T3P), trimethylsilyl azide ($TMSN_3$) and triethylamine; or

a mixture of sodium azide (NaN_3), tetrabutylammonium bromide and zinc(II) triflate;

(b) removing an amine protecting group from the compound of Formula 4 to prepare a compound of Formula 1a

[Formula 1a]



;

and

introducing an R_5 substituent into the compound of Formula 1a to yield a compound of Formula 1,

wherein:

R_1 is hydrogen, halogen, hydroxy, substituted or unsubstituted C_1-C_6 alkyl, or C_1-C_6 alkoxy;

R_2, R_3 and R_4 are each independently hydrogen, halogen, substituted or unsubstituted amino, nitro, cyano, hydroxy, substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted C_1-C_6 alkoxy, or $-C(O)R_6$;

R_5 is hydrogen or C_1-C_6 alkyl; and

n is 0 or 1; and

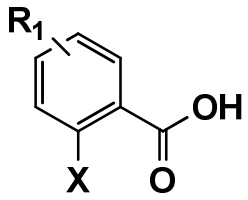
PG_1 is an amine protecting group selected from the group consisting of Boc (tert-butyloxycarbonyl), benzyl, tert-butyl, PMB (4-methoxybenzyl), Fmoc (fluorenylmethyloxycarbonyl), Ts (tosylate), MOM (methoxymethyl), THP (tetrahydropyranyl), TBDMS (tert-butyldimethylsilyl), and TBDPS (tert-butyldiphenylsilyl).

【Claim 7】

The method of claim 5, wherein the compound of Formula 2 is prepared by the steps of:

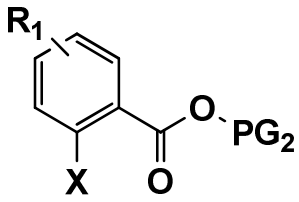
reacting a compound of Formula 5:

[Formula 5]



in the presence of an acid to prepare a compound of Formula 6:

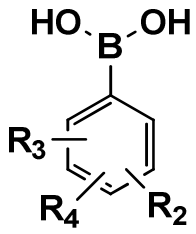
[Formula 6]



which has a carboxylic acid protecting group introduced therein;

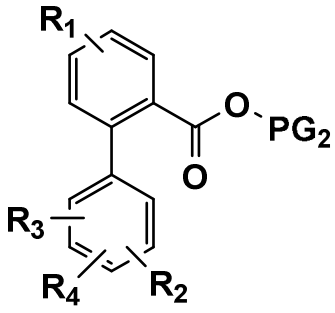
coupling the compound of Formula 6 with a compound Formula 7:

[Formula 7]



to prepare a compound of Formula 8:

[Formula 8]



and

de-esterifying the compound of Formula 8 in the presence of a base,

wherein

R_1 is hydrogen, halogen, hydroxy, substituted or unsubstituted C_1-C_6 alkyl, or C_1-C_6 alkoxy;

R_2, R_3 and R_4 are each independently hydrogen, halogen, substituted or unsubstituted amino, nitro, cyano, hydroxy, substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted C_1-C_6 alkoxy, or $-C(O)R_6$;

R_5 is hydrogen or C_1-C_6 alkyl; and

n is 0 or 1;

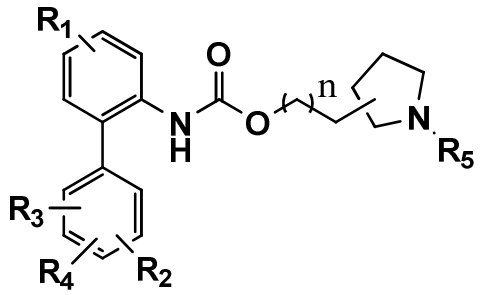
X is halogen; and

PG_2 is a protecting group selected from the group consisting of a C_1-C_4 alkyl group, benzyl, PMB (4-methoxybenzyl), THP (tetrahydropyranyl), TBDMS (tert-butyldimethylsilyl), and TBDPS (tert-butyldiphenylsilyl).

【Claim 8】

A method for preparing a compound of Formula 1 or a pharmaceutically acceptable salt thereof:

[Formula 1]

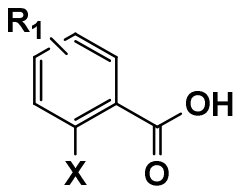


,

the method comprising the steps of:

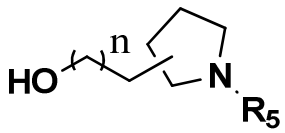
(a) reacting a compound of Formula 5:

[Formula 5]



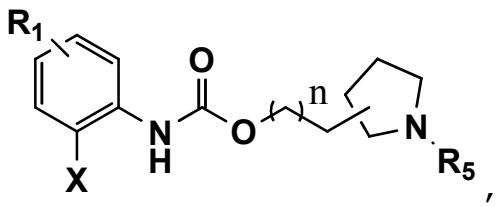
with a compound of Formula 3:

[Formula 3]



in the presence of a carbamate synthesis reagent to prepare a compound of Formula 9:

[Formula 9]



wherein:

the carbamate synthesis reagent is:

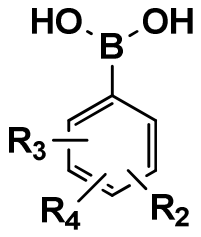
a mixture of diphenylphosphoryl azide (DPPA) and triethylamine; or

a mixture of propylphosphonic anhydride (T3P), trimethylsilyl azide ($TMSN_3$) and triethylamine; or

a mixture of sodium azide (NaN_3), tetrabutylammonium bromide and zinc(II) triflate, and

(b) coupling a compound of Formula 7:

[Formula 7]



to the compound of formula 9 to yield the compound of Formula 1;

wherein

R_1 is hydrogen, halogen, hydroxy, substituted or unsubstituted C_1-C_6 alkyl, or C_1-C_6 alkoxy;

R_2, R_3 and R_4 are each independently hydrogen, halogen, substituted or unsubstituted amino, nitro, cyano, hydroxy, substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted C_1-C_6 alkoxy, or $-C(O)R_6$;

R_5 is hydrogen or C_1-C_6 alkyl; and

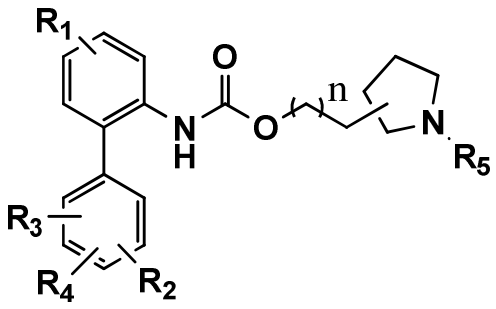
n is 0 or 1; and

X is halogen.

【Claim 9】

A method for preparing a compound of Formula 1 or a pharmaceutically acceptable salt thereof:

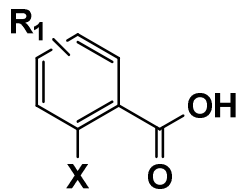
[Formula 1]



the method comprising the steps of:

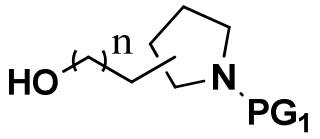
reacting a compound of Formula 5:

[Formula 5]



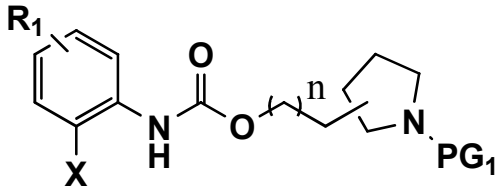
with a compound of Formula 3a:

[Formula 3a]



in the presence of a carbamate synthesis reagent to prepare a compound of Formula 9a:

[Formula 9a]



wherein:

the carbamate synthesis reagent is:

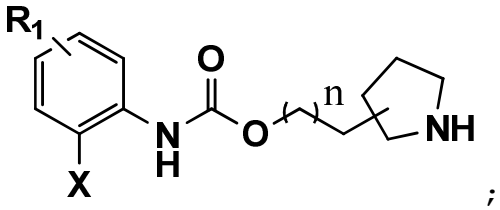
a mixture of diphenylphosphoryl azide (DPPA) and triethylamine; or

a mixture of propylphosphonic anhydride (T3P), trimethylsilyl azide ($TMSN_3$) and triethylamine; or

a mixture of sodium azide (NaN_3), tetrabutylammonium bromide and zinc(II) triflate;

deprotecting the compound of Formula 9a to prepare a compound of Formula 9b:

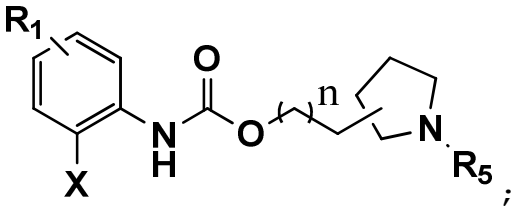
[Formula 9b]



;

introducing an R_5 substituent into the compound of Formula 9b to prepare a compound of Formula 9:

[Formula 9]

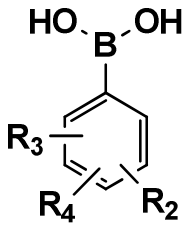


;

and

coupling a compound of Formula 7:

[Formula 7]



to the compound of Formula 9 to yield the compound of Formula 1,

wherein:

R_1 is hydrogen, halogen, hydroxy, substituted or unsubstituted C_1-C_6 alkyl, or C_1-C_6 alkoxy;

R_2, R_3 and R_4 are each independently hydrogen, halogen, substituted or unsubstituted amino, nitro, cyano, hydroxy, substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted C_1-C_6 alkoxy, or $-C(O)R_6$;

R_5 is hydrogen or C_1-C_6 alkyl;

n is 0 or 1;

X is halogen; and

PG_1 is the same as defined in claim 6.

【Claim 10】

A pharmaceutical composition comprising the compound of claim 1, a stereoisomer thereof, or a pharmaceutically acceptable salt thereof as an active ingredient; and a pharmaceutically acceptable carrier or diluent.

【Claim 11】

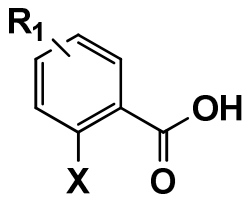
The pharmaceutical composition of claim 10, wherein the pharmaceutical composition is suitable for use in preventing or treating a disease responsive to blocking the activity of the muscarinic M3 receptor in a mammal, wherein the disease is urinary incontinence, urinary urgency or overactive bladder.

【Claim 12】

The method of claim 6, wherein the compound of Formula 2 is prepared by the steps of:

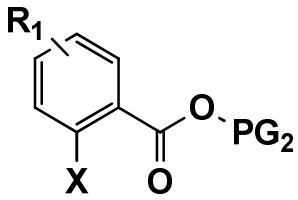
reacting a compound of Formula 5:

[Formula 5]



in the presence of an acid to prepare a compound of Formula 6:

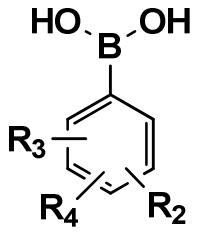
[Formula 6]



which has a carboxylic acid protecting group introduced therein;

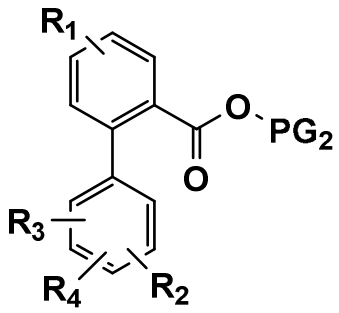
coupling the compound of Formula 6 with a compound of Formula 7:

[Formula 7]



to prepare a compound of Formula 8:

[Formula 8]



and

de-esterifying the compound of Formula 8 in the presence of a base,

wherein:

R_1 is hydrogen, halogen, hydroxy, substituted or unsubstituted C_1-C_6 alkyl, or C_1-C_6 alkoxy;

R_2, R_3 and R_4 are each independently hydrogen, halogen, substituted or unsubstituted amino, nitro, cyano, hydroxy, substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted C_1-C_6 alkoxy, or $-C(O)R_6$;

R_5 is hydrogen or C_1-C_6 alkyl;

n is 0 or 1;

X is halogen; and

PG_2 is a protecting group selected from the group consisting of a C_1-C_4 alkyl group, benzyl, PMB (4-methoxybenzyl), THP (tetrahydropyranyl), TBDMS (tert-butyldimethylsilyl), and TBDPS (tert-butyldiphenylsilyl).

【Claim 13】

The pharmaceutical composition of claim 10, wherein the mammal is a human.