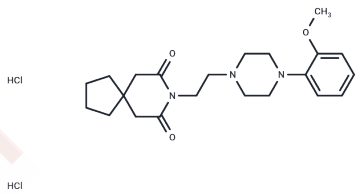
Data Sheet (Cat.No.T3046)

TargetMol

BMY 7378 dihydrochloride

Chemical Properties



CAS No. : 21102-95-4

Formula: C22H33Cl2N3O3

Molecular Weight: 458.42

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	BMY 7378 dihydrochloride (BMY7378 HCl) , α1D-adrenergic receptor antagonist, is a weak partial agonist/antagonist of 5-HT1A receptor.
Targets(IC50)	5-HT Receptor,Adrenergic Receptor,Dopamine Receptor
In vitro	The antagonistic effect produced by WAY 100635 was mediated by increasing the concentration of 5-HT to 300 μM with an IC50 of 0.95 nM. PluriSIn 1 causes central cell death by activating apoptosis.PluriSIn 1 produces ER stress by interacting with hPSCs. PluriSIns 1 (20 μM) has an inhibitory effect on teratoma formation by undifferentiated hPSCs, and it also inhibits the development of mPSCs and mouse embryos.PluriSIns 1 (20 μM) induces a protein-like response to hPSCs by interacting with hPSCs. PluriSIns 1 (20 μM) induced an approximately 30% reduction in protein synthesis by interacting with hPSCs.
In vivo	The antagonistic effect produced by WAY 100635 was mediated by increasing the concentration of 5-HT to 300 μM with an IC50 of 0.95 nM. PluriSIn 1 causes central cell death by activating apoptosis.PluriSIn 1 produces ER stress by interacting with hPSCs. PluriSIns 1 (20 μM) has an inhibitory effect on teratoma formation by undifferentiated hPSCs, and it also inhibits the development of mPSCs and mouse embryos.PluriSIns 1 (20 μM) induces a protein-like response to hPSCs by interacting with hPSCs. PluriSIns 1 (20 μM) induced an approximately 30% reduction in protein synthesis by interacting with hPSCs.
Kinase Assay	Phosphatase activities are determined on immunoprecipitates of the phosphatases. Briefly, 2×106 K562 cells are treated for 18 hr with Salubrinal (20 μM), PSI (10 nM), the combination of both drugs or okadaic acid (100 nM). After washing with PBS, cells are lysed for 15 min on ice either in PP1LB (for determination of PP1γ-activity; 20 mM Tris-HCl, pH 7.5, 1% Triton X-100, 10% glycerol, 132 mM NaCl, Roche complete protease inhibitor) or in RIPA (for PP2A), supplemented with Roche complete protease inhibitor). Cell lysates containing 500 μg (PP1γ) or 300 μg (PP2A) protein are immunoprecipitated overnight at 4°C with 2-3 μg of the appropriate antibodies and then incubated with Protein A-Sepharose. Immunoprecipitates are washed three times in lysis buffer, followed by resuspension in phosphatase assay buffer (PP2A: 20 mM Tris-HCl, pH7.5, 0.1 mM CaCl2; PP1γ: 50 mM Tris HCl pH 7.0, 0.2 mM MnCl2, 0.1 mM CaCl2, 125 μg/mL BSA, 0.05% Tween 20), supplemented with 100 μM 6,8-difluoro-4-methyl-umbelliferyl phosphate (DiFMUP). Precipitates are allowed to react with substrate for 1 hr at 37°C on

Kinase Assay	an Eppendorf Thermoshaker, centrifuged and DiFMU fluorescence is measured on a BioTek Lambda Fluoro 320 microplate reader (360 nmex/460 nmem). Phosphatase activities are given as percent change relative to the control (DMSO treated cells)[1].

Solubility Information

Solubility	Ethanol: 16 mg/mL (34.9 mM),Sonication is recommended. DMSO: 85 mg/mL (185.42 mM),Sonication is recommended. H2O: 84 mg/mL (183.24 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (10.91 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1814 mL	10.907 mL	21.8141 mL
5 mM	0.4363 mL	2.1814 mL	4.3628 mL
10 mM	0.2181 mL	1.0907 mL	2.1814 mL
50 mM	0.0436 mL	0.2181 mL	0.4363 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Cleary L, et al. Auton Autacoid Pharmacol, 2005, 25(4), 135-141.
Goetz AS, et al. Eur J Pharmacol, 1995, 272(2-3), R5-6.
Greuel JM, et al. Eur J Pharmacol, 1992, 211(2), 211-219.
Sharp T, et al. Eur J Pharmacol, 1990, 176(3), 331-40.

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