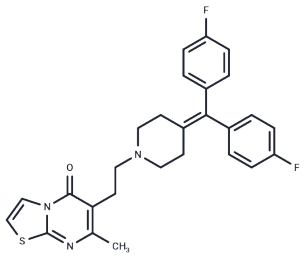
Data Sheet (Cat.No.T16759)

TargetMol

Ritanserin

Chemical Properties



CAS No. : 87051-43-2

Formula: C27H25F2N3OS

Molecular Weight: 477.57

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	Ritanserin (R 55667) is a long-acting, highly potent, relatively selective, orally bioavailable 5-HT2 receptor antagonist with an IC50 of 0.9 nM.
Targets(IC50)	5-HT Receptor,Adrenergic Receptor,Histamine Receptor,Dopamine Receptor
In vitro	**METHODS**: AML cell lines Kasumi-1 and KG-1α were treated with Ritanserin (R 55667) (10, 20, 30, 40, 50, 60 μM), and cytotoxicity was determined by CCK-8. **RESULTS**Ritanserin (R 55667) significantly reduced the proliferation activity of AML cells in a dose-dependent and time-dependent manner. [1] Ritanserin (R 55667) has low activity against multiple receptors, including histamine-H1 (IC50, 35 nM), dopamine-D2 (IC50, 70 nM), adrenergic-α1 (IC50, 97 nM), and adrenergic-α2 receptors (IC50, 150 nM).[2]

Solubility Information

Solubility	DMSO: 80 mg/mL (167.51 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: 2 mg/mL (4.19 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	2.0939 mL	10.4697 mL	20.9393 mL
5 mM	0.4188 mL	2.0939 mL	4.1879 mL
10 mM	0.2094 mL	1.047 mL	2.0939 mL
50 mM	0.0419 mL	0.2094 mL	0.4188 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

Tan J, et al. Ritanserin suppresses acute myeloid leukemia by inhibiting DGKα to downregulate phospholipase D and the Jak-Stat/MAPK pathway. Discov Oncol. 2023 Jul 1;14(1):118.
Tan J, Zhong M, Hu Y, et al.Ritanserin suppresses acute myeloid leukemia by inhibiting DGKα to downregulate phospholipase D and the Jak-Stat/MAPK pathway.Discover Oncology.2023, 14(1): 118.
Leysen JE, et al. Receptor-binding properties in vitro and in vivo of ritanserin: A very potent and long acting serotonin-S2 antagonist. Mol Pharmacol. 1985 Jun;27(6):600-11.