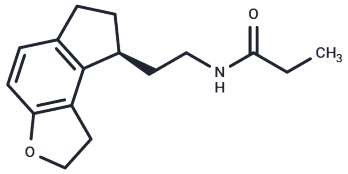
Data Sheet (Cat.No.T1463)

TargetMol
YOUR TARGET MOLECULES

Ramelteon

Chemical Properties



CAS No. : 196597-26-9

Formula: C16H21NO2

Molecular Weight: 259.34

Appearance: no data available

Storage: store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Ramelteon (TAK-375) is a Melatonin Receptor Agonist. The mechanism of action of ramelteon is as a Melatonin Receptor Agonist.
Targets(IC50)	Melatonin Receptor,MT Receptor
Kinase Assay	cDNA encoding the human MT1 gene is introduced into CHO cells. Cells are harvested at confluence in Ca2+ and Mg2+ free Hanks' balanced salt solution containing 5 mM EDTA and collected by centrifugation. Cells are homogenized in ice-cold 50 mM Tris-HCl buffer, washed twice, pelleted, and stored at -30°C until the binding assays are conducted. Test compound and 40 pM 2-[125I]melatonin are mixed with the thawed homogenate in a total volume of 1 mL and incubated at 25°C for 150 min. The reaction is terminated by addition of 3 mL of icecold buffer followed by vacuum filtration on a Whatman GF/B. The filter is washed twice and radioactivity is counted by a g-counter[1].

Solubility Information

Solubility	H2O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: 49 mg/mL (188.9 mM), DMSO: 49 mg/mL (188.9 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.8559 mL	19.2797 mL	38.5594 mL
5 mM	0.7712 mL	3.8559 mL	7.7119 mL
10 mM	0.3856 mL	1.928 mL	3.8559 mL
50 mM	0.0771 mL	0.3856 mL	0.7712 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.

Reference

Kato K, et al. Neuropharmacology, 2005, 48(2), 301-310.
Fisher SP, et al. J Pineal Res, 2008, 45(2), 125-132.

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