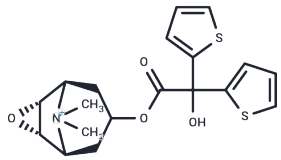
Data Sheet (Cat.No.T1179)

TargetMol

Tiotropium bromide

Chemical Properties



CAS No. : 136310-93-5

Formula: C19H22BrNO4S2

Molecular Weight: 472.42

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	Tiotropium bromide (BA679 BR) is a long-acting, 24 hour, anticholinergic bronchodilator used in the management of chronic obstructive pulmonary disease (COPD). Tiotropium is a muscarinic receptor antagonist, on topical application it acts mainly on M3 muscarinic receptors located in the airways to produce smooth muscle relaxation, thus producing a bronchodilatory effect.
Targets(IC50)	AChR

Solubility Information

Solubility	DMSO: 250 mg/mL (529.19 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 (4.23 mM),Sonication is recommended. PBS: 50 mg/mL (105.84 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	2.1168 mL	10.5838 mL	21.1676 mL
5 mM	0.4234 mL	2.1168 mL	4.2335 mL
10 mM	0.2117 mL	1.0584 mL	2.1168 mL
50 mM	0.0423 mL	0.2117 mL	0.4234 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

Hansel TT, Barnes PJ. Drugs Today (Barc). 2002 Sep;38(9):585-600.