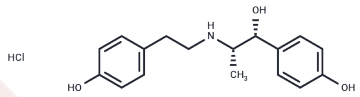
Data Sheet (Cat.No.T1433)

TargetMol

Ritodrine hydrochloride

Chemical Properties



CAS No. : 23239-51-2

Formula: C17H21NO3·HCl

Molecular Weight: 323.82

Appearance: no data available

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

Biological Description

Description	Ritodrine hydrochloride (NSC 291565) binds to and activates beta-2 adrenergic receptors of myometrial cells in the uterus, which decreases the intensity and frequency of uterine contractions. Ritodrine hydrochloride (NSC 291565) is a phenethylamine derivative with tocolytic activity. Specifically, Ritodrine hydrochloride (NSC 291565) probably activates adenyl cyclase, thereby increasing production of cyclic adenosine monophosphate (cAMP), which in turn enhances the efflux of calcium from vascular smooth muscle cells. A lack of intracellular calcium prevents uterine myometrial contractions. In addition, this agent may directly inactivate myosin light chain kinase, a critical enzyme necessary for the initiation of muscle contractions.
Targets(IC50)	Adrenergic Receptor

Solubility Information

Solubility	H2O: 200.7 mM,Sonication is recommended. DMSO: 50 mg/mL (154.41 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0881 mL	15.4407 mL	30.8814 mL
5 mM	0.6176 mL	3.0881 mL	6.1763 mL
10 mM	0.3088 mL	1.5441 mL	3.0881 mL
50 mM	0.0618 mL	0.3088 mL	0.6176 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

Tanaka N, et al. J Med Chem. 2001 Apr 26;44(9):1436-45.

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