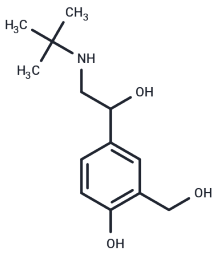
Data Sheet (Cat.No.T1139)

TargetMol

Salbutamol

Chemical Properties



CAS No. : 18559-94-9

Formula: C13H21NO3

Molecular Weight: 239.31

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	Salbutamol (Albuterol) stimulates beta2-adrenergic receptors in the lungs, thereby activating the enzyme adenylate cyclase that catalyzes the conversion of ATP to cyclic-3', 5'-adenosine monophosphate (cAMP). Salbutamol Sulfate is the sulfate salt of the short-acting sympathomimetic agent albuterol, a 1:1 racemic mixture of (R)-albuterol and (S)-albuterol with bronchodilator activity. Increased cAMP concentrations relax the bronchial smooth muscle, relieve bronchospasms, and reduce inflammatory cell mediator release, especially from mast cells. To a lesser extent, Salbutamol stimulates beta1-adrenergic receptors, thereby increasing the force and rate of myocardial contraction.
Targets(IC50)	ERK,Adrenergic Receptor

Solubility Information

Solubility	DMSO: 255 mg/mL (1065.56 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 (8.36 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	4.1787 mL	20.8934 mL	41.7868 mL
5 mM	0.8357 mL	4.1787 mL	8.3574 mL
10 mM	0.4179 mL	2.0893 mL	4.1787 mL
50 mM	0.0836 mL	0.4179 mL	0.8357 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

Brichetto L, et al. Am J Physiol Lung Cell Mol Physiol. 2003 Jan;284(1):L133-9.