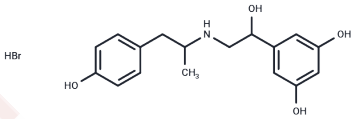
Data Sheet (Cat.No.T22331)

TargetMol

Fenoterol hydrobromide

Chemical Properties



CAS No. : 1944-12-3

Formula: C17H22BrNO4

Molecular Weight: 384.27

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	Fenoterol hydrobromide is an orally active and selective β2-adrenoceptor agonist and bronchodilator used in the study of cardiovascular diseases such as asthma and bronchitis.
Targets(IC50)	Adrenergic Receptor
In vitro	Fenoterol hydrobromide inhibited lipopolysaccharide (LPS)-induced AMPK activation and inflammatory cytokine production in THP-1 cells. Fenoterol hydrobromide treatment reduced AICAR-induced AMPK activation, NF-κB activation and TNF-α release, and also significantly down-regulated the elevated phosphorylation level of AMPK. [1] Fenoterol hydrobromide is a potent activator of exosome biogenesis and/or secretion in PC cells. [2]
In vivo	0.7 mg/kg Fenoterol hydrobromide injected intraperitoneally twice daily was treated to suppress mechanically abnormal pain during chronic treatment. [3]

Solubility Information

Solubility	H2O: 20 mg/mL (52.05 mM),Sonication is recommended. DMSO: 80 mg/mL (208.19 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: 3.3 mg/mL (8.59 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	2.6023 mL	13.0117 mL	26.0234 mL
5 mM	0.5205 mL	2.6023 mL	5.2047 mL
10 mM	0.2602 mL	1.3012 mL	2.6023 mL
50 mM	0.052 mL	0.2602 mL	0.5205 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

Wang W, et al. Anti-inflammatory activities of fenoterol through β-arrestin-2 and inhibition of AMPK and NF-κB activation in AICAR-induced THP-1 cells. Biomed Pharmacother. 2016 Dec;84:185-190.
Datta A, et al. High-throughput screening identified selective inhibitors of exosome biogenesis and secretion: A drug repurposing strategy for advanced cancer. Sci Rep. 2018 May 25;8(1):8161.
Choucair-Jaafar N, et al. Beta2-adrenoceptor agonists alleviate neuropathic allodynia in mice after chronic treatment. Br J Pharmacol. 2009 Dec;158(7):1683-94.
Heel RC, et al. Fenoterol: a review of its pharmacological properties and therapeutic efficacy in asthma. Drugs. 1978 Jan;15(1):3-32.