

Eformoterol Hemifumarate

Chemical Properties

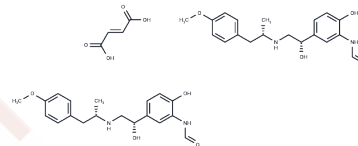
CAS No. : 43229-80-7

Formula: $C_{19}H_{24}N_2O_4 \cdot 1/2C_4H_4O_4$

Molecular Weight: 402.4

Appearance: no data available

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



Biological Description

Description	Formoterol fumarate (Eformoterol Hemifumarate), an effective, specific and long-acting β_2 -adrenoceptor agonist, is utilized in the treatment of chronic obstructive pulmonary disease(COPD) and asthma.
Targets(IC50)	Adrenergic Receptor
In vitro	In guinea pig lungs, Formoterol at a concentration of 100 mg/mL inhibits Platelet-Activating Factor (PAF)-induced eosinophil aggregation and suppresses Porcine Pancreatic Elastase (PPE) activity for 2-4 hours. In conscious guinea pigs, Formoterol dose-dependently inhibits histamine-induced plasma protein leakage and bronchoconstriction. Significant inhibition of histamine-induced effects was observed at doses of 10 mg/mL and 100 mg/mL. Additionally, a higher concentration of Formoterol is required to inhibit neutrophil aggregation (induced by Lipopolysaccharides) compared to its ability to suppress granulocyte-independent PPE (induced by histamine).
In vivo	Formoterol is a high-affinity, selective β_2 -adrenergic receptor agonist that effectively relaxes airway smooth muscles. Similar to salbutamol and salmeterol, it relaxes guinea pig trachea and human bronchi in vitro in a concentration-dependent manner and inhibits the release of antigen-induced inflammatory mediators in human lung slices.

Solubility Information

Solubility	H2O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: < 1 mg/mL (insoluble or slightly soluble), DMSO: 74 mg/mL (183.9 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4851 mL	12.4254 mL	24.8509 mL
5 mM	0.497 mL	2.4851 mL	4.9702 mL
10 mM	0.2485 mL	1.2425 mL	2.4851 mL
50 mM	0.0497 mL	0.2485 mL	0.497 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

Anderson GP, et al. Life Sci, 1993, 52(26), 2145-2160.

Nials AT, et al. Eur J Pharmacol, 1994, 251(2-3), 127-135.

Whelan CJ, et al. Br J Pharmacol, 1993, 110(2), 613-618.

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