

Metaproterenol

Chemical Properties

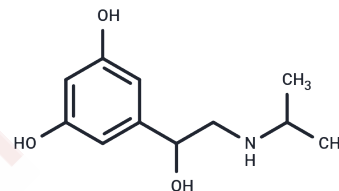
CAS No. : 586-06-1

Formula: C₁₁H₁₇NO₃

Molecular Weight: 211.26

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	Metaproterenol also has anti-inflammatory activity. Metaproterenol is a direct-acting sympathomimetic and a β 2-adrenergic receptor (β 2AR) agonist (IC ₅₀ : 68 nM).
Targets(IC ₅₀)	Bcl-2 Family, Adrenergic Receptor
In vitro	Metaproterenol (10 μ M; 74 hours; THP-1 cells and bone marrow macrophages) treatment downregulates NF- κ B and increases β -arrestin2 and its interaction with I κ B α in high glucose-induced THP-1 cells and bone marrow macrophages [1].
In vivo	Metaproterenol (Zucker diabetic fatty rats; 12 weeks) treatment, decreases monocyte activation as well as pro-inflammatory and pro-fibrotic responses in the kidneys and heart. Metaproterenol might have protective effects against diabetic renal and cardiovascular complications[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.7335 mL	23.6675 mL	47.335 mL
5 mM	0.9467 mL	4.7335 mL	9.467 mL
10 mM	0.4734 mL	2.3668 mL	4.7335 mL
50 mM	0.0947 mL	0.4734 mL	0.9467 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

Noh H, et al. Beta 2-adrenergic receptor agonists are novel regulators of macrophage activation in diabetic renal and cardiovascular complications. *Kidney Int.* 2017 Jul;92(1):101-113.

Ibrahim FA, et al. Highly sensitive spectrofluorimetric method for rapid determination of orciprenaline in biological fluids and pharmaceuticals. *Luminescence.* 2019 Feb;34(1):77-83.

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