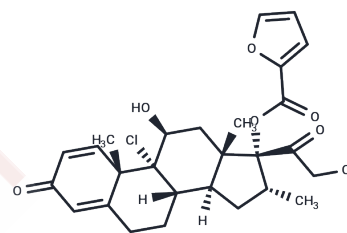


Mometasone furoate

Chemical Properties

CAS No. : 83919-23-7
Formula: C₂₇H₃₀Cl₂O₆
Molecular Weight: 521.43
Appearance: no data available
Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	Mometasone furoate (Sch32088) is a pregnadienediol derivative with anti-allergic and anti-inflammatory properties, used in the management of asthma and allergic rhinitis, as well as a topical treatment for skin disorders.
Targets(IC50)	Glucocorticoid Receptor
In vitro	Both 0.02% Mometasone furoate and 0.1% Fluticasone propionate significantly suppress the increase in antigen-induced nasal rubbing even six hours after topical application, demonstrating their lasting effects. Mometasone furoate reduces nasal rubbing in rats and, at the highest tested dose in mice (3mg/kg), inhibits the increased sensitivity to aerosolized acetylcholine. The compound dose-dependently suppresses the elevation of eosinophil counts in the bronchoalveolar lavage fluid and lung tissue of mice challenged with sensitizing ovalbumin. Furthermore, a dosage of 33 mg/kg Mometasone furoate lowers the percentage of CD44+ T helper cells (activated/memory cells) to levels observed in mice not challenged with sensitizing ovalbumin, indicating its immunomodulatory potential.
In vivo	Mometasone furoate effectively inhibits the production of cytokines, including interleukin (IL)-4, IL-5, and interferon-γ, in human CD4+ T cells stimulated by anti-CD3. It also efficiently suppresses the activation of Th cells, including type 2 helper T (Th2) cells, in draining lymph nodes, leading to the suppression of the IgE response.

Solubility Information

Solubility	DMSO: 45 mg/mL (86.3 mM), Sonication is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9178 mL	9.589 mL	19.178 mL
5 mM	0.3836 mL	1.9178 mL	3.8356 mL
10 mM	0.1918 mL	0.9589 mL	1.9178 mL
50 mM	0.0384 mL	0.1918 mL	0.3836 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

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Chapman RW, et al. Arzneimittelforschung,1998, 48(4), 384-391.

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