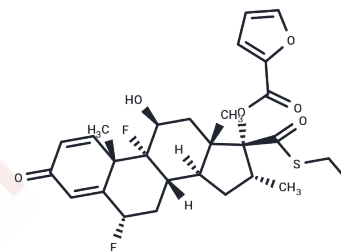


Fluticasone furoate

Chemical Properties

CAS No. :	397864-44-7
Formula:	C27H29F3O6S
Molecular Weight:	538.58
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	Fluticasone furoate (Avamys) is a synthetic trifluorinated corticosteroid derived from fluticasone with a Kd of 0.3 nM. Fluticasone furoate has potent anti-inflammatory, anti-asthmatic activity, and low systemic exposure. Fluticasone furoate can be used as a nasal spray for studies about allergic rhinitis treatment.
Targets(IC50)	Glucocorticoid Receptor
In vitro	Fluticasone furoate displays great potency in inhibiting tumor necrosis factor synthesis and action. Fluticasone furoate prevents damage to cultured human lung epithelial cells by different stimuli[2].
In vivo	Fluticasone furoate is excreted mainly in the feces, with only minor amounts in the urine. Fluticasone furoate is 99.4% bound to plasma protein in vitro. Clearance of Fluticasone furoate is primarily by hydrolysis in the liver by the cytochrome P450 isozyme CYP3A4 that converts the drug to the 17β-carboxylic acid metabolite, which displays low glucocorticoid receptor agonist potency[2].

Solubility Information

Solubility	H2O: Insoluble, DMSO: 12.5 mg/mL (23.21 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: 1.25 mg/mL (2.32 mM),Suspension. 10% DMSO+90% Saline: < 1.25 mg/mL (2.32 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8567 mL	9.2837 mL	18.5673 mL
5 mM	0.3713 mL	1.8567 mL	3.7135 mL
10 mM	0.1857 mL	0.9284 mL	1.8567 mL
50 mM	0.0371 mL	0.1857 mL	0.3713 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

Alizadeh Z, et al. Asthma phenotypes and T-bet protein expression in cells treated with Fluticasone Furoate/Vilanterol. *Pulm Pharmacol Ther.* 2020 Feb;60:101886.

Giavina-Bianchi P, et al. Fluticasone furoate nasal spray in the treatment of allergic rhinitis. *Ther Clin Risk Manag.* 2008 Apr;4(2):465-72.

Albertson TE, Richards JR, Zeki AA. The combination of fluticasone furoate and vilanterol trifenate in the management of asthma: clinical trial evidence and experience. *Ther Adv Respir Dis.* 2016 Feb;10(1):43-56.

Syed YY. Fluticasone furoate/vilanterol: a review of its use in patients with asthma. *Drugs.* 2015 Mar;75(4):407-18.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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