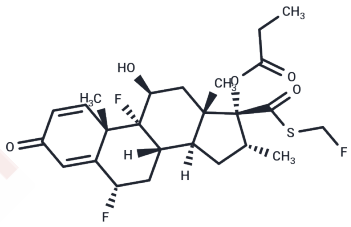
Data Sheet (Cat.No.T0188)

TargetMol

Fluticasone (propionate)

Chemical Properties



CAS No. : 80474-14-2

Formula: C25H31F3O5S

Molecular Weight: 500.57

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 propionate (CCI-187881), derived from fluticasone used to remedy asthma and allergic rhinitis, is a high affinity, selective GR (glucocorticoid receptor) agonist.
Targets(IC50)	Glucocorticoid Receptor,Estrogen/progestogen Receptor,Endogenous Metabolite,ADC Cytotoxin,Phospholipase,Virus Protease
In vitro	Fluticasone propionate (1 pM) inhibits the constitutive and TGF-beta-induced expression of alpha-SMA in human lung myofibroblasts. Fluticasone propionate blocks the TNF-alpha-induced nuclear translocation of the pro-inflammatory transcription factor NF-kappaB in human lung myofibroblasts. [1] Fluticasone propionate inhibits in lung myofibroblasts, at a very early stage of differentiation, the activation of Janus kinase/STAT pathways induced by IL-13 (tyrosine kinase 2, STAT1, STAT3, STAT6, mitogen-activated protein kinase). Fluticasone propionate still displays a potential anti-inflammatory activity even if it only inhibits tyrosine kinase 2 phosphorylation in mildly or fully differentiated myofibroblastic cultures. Fluticasone propionate inhibits constitutive and TGF-beta-induced expression of alpha-smooth muscle actin, the main marker of myofibroblastic differentiation, both in very early and in mild differentiated myofibroblasts. Fluticasone propionate displays an additional powerful anti-inflammatory effect, decreasing nuclear translocation of NF-kappaB independent of the degree of myofibroblastic differentiation. [2] Fluticasone propionate inhibits allergen-induced T-cell proliferation, expression of IL-3, IL-5 and GM-CSF mRNA, and secretion of the corresponding proteins in a concentration-dependent fashion. Fluticasone propionate has the potential markedly to inhibit allergen-induced T-cell production of asthma-relevant cytokines. [3]
In vivo	Fluticasone propionate administrated after induction of a severe heaves exacerbation results in complete resolution of clinical signs, normalization of pulmonary function tests, and significant decrease in bronchoalveolar lavage (BAL) neutrophilia in horse. [4]

Solubility Information

Solubility	DMSO: 250 mg/mL (499.43 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: 10 mg/mL (19.98 mM),Suspension. 10% DMSO+90% Saline: < 10 mg/mL (19.98 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% Corn Oil: 2.5 mg/mL (4.99 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	1.9977 mL	9.9886 mL	19.9772 mL
5 mM	0.3995 mL	1.9977 mL	3.9954 mL
10 mM	0.1998 mL	0.9989 mL	1.9977 mL
50 mM	0.040 mL	0.1998 mL	0.3995 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

Baouz S, et al. Int Immunol,2005, 17(11), 1473-1481.
Cazes E, et al. J Immunol,2001, 167(9), 5329-5337.
Powell N, et al. Clin Exp Allergy,2001, 31(1), 69-76.
Giguère S, et al. Vet Immunol Immunopathol. 2002 Mar;85(3-4):147-58.