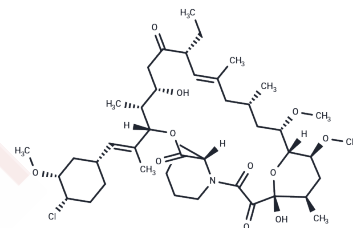


Pimecrolimus

Chemical Properties

CAS No. :	137071-32-0
Formula:	C ₄₃ H ₆₈ ClNO ₁₁
Molecular Weight:	810.45
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	Pimecrolimus (SDZ-ASM 981), a calcineurin inhibitor immunosuppressant, binds to the receptor macrophilin-12 (FKBP-12) forming a complex that blocks the calcium-dependent signal transduction cascade mediated by calcineurin.
Targets(IC50)	Phosphatase
In vitro	Pimecrolimus effectively alleviates allergic symptoms in a variety of (allergic) animals. Within the context of both the acute allergic dermatitis low-magnesium hairless rat model and the moderate allergic contact dermatitis mouse model, Pimecrolimus inhibits inflammatory responses and pruritic (itching) symptoms.
In vivo	In mast cells, Pimecrolimus inhibits the transcription and synthesis of cytokines, while simultaneously promoting the release of 5-hydroxytryptamine and β -hexosaminidase. In T lymphocytes, Pimecrolimus suppresses activation by inhibiting phosphatase activity, thereby blocking T-cell activation.

Solubility Information

Solubility	H ₂ O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: 93 mg/mL (114.75 mM),Sonication is recommended. DMSO: 250 mg/mL (308.47 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: 3.3 mg/mL (4.07 mM),Sonication is recommended. <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	1.2339 mL	6.1694 mL	12.3388 mL
5 mM	0.2468 mL	1.2339 mL	2.4678 mL
10 mM	0.1234 mL	0.6169 mL	1.2339 mL
50 mM	0.0247 mL	0.1234 mL	0.2468 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

Nghiem P, et al. Am Acad Dermatol, 2002, 46(2), 228-241.

Gupta AK, et al. J Eur Acad Dermatol Venereol, 2003, 17(5), 493-503.

Stuetz A, et al. Semin Cutan Med Surg, 2001, 20(4), 233-241.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481