

PRODUCT INFORMATION



Pimecrolimus

Item No. 13107

CAS Registry No.: 137071-32-0
Formal Name: (9E)-3S-[(1E)-2-[(1R,3R,4S)-4R-chloro-3-methoxycyclohexyl]-1-methylethenyl]-8-ethyl-5S,6,8R,11,12S,13,14S,15R,16S,17,18R,19R,24,25,26,26aS-hexadecahydro-5,19-dihydroxy-14,16-dimethoxy-4,10,12,18-tetramethyl-15,19-epoxy-3H-pyrido[2,1-c][1,4]oxaazacyclotricosine-1,7,20,21(4H,23H)-tetrone

Synonyms: Elidel, SDZ-ASM 981

MF: C₄₃H₆₈ClNO₁₁

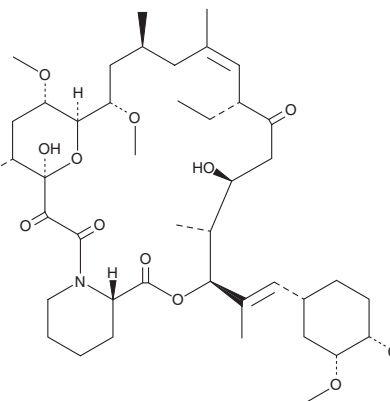
FW: 810.5

Purity: ≥98%

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Pimecrolimus is supplied as a crystalline solid. A stock solution may be made by dissolving the pimecrolimus in the solvent of choice. Pimecrolimus is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of pimecrolimus in these solvents is approximately 20 mg/ml.

Pimecrolimus is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, pimecrolimus should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Pimecrolimus has a solubility of approximately 0.25 mg/ml in a 1:3 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Pimecrolimus is a natural ascomycin macrolactam that binds to macrophilin-12 (FKBP12) and inhibits calcineurin as well as prolyl isomerase (rotamase).¹ Presumably through these actions, it blocks the activation of T cells by allogeneic dendritic cells (IC₅₀ = 0.55 nM) without affecting dendritic cells.²⁻⁵ Moreover, pimecrolimus suppresses the generation of pro-inflammatory cytokines by T cells, the release of pre-formed inflammatory mediators from mast cells, and the activation of eosinophils.^{2,6,7} These effects support the use of pimecrolimus in countering inflammatory skin diseases, such as atopic dermatitis (eczema) and psoriasis.⁸⁻¹⁰

References

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WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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