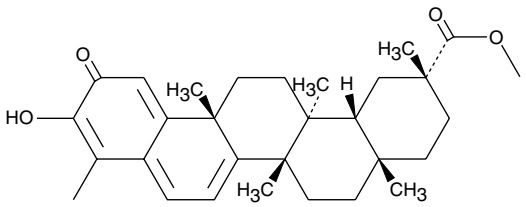
Product Information

Pristimerin

Item No. 13621

CAS Registry No.: 1258-84-0
Formal Name: 3-hydroxy-9β,13α-dimethyl-2-oxo-24,25,26-trinoroleana-1(10),3,5,7-tetraen-29-oic acid, methyl ester
Synonyms: Celastrol methyl ester, NSC 99281
MF: $C_{30}H_{40}O_4$
FW: 464.6
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 203, 419 nm



Laboratory Procedures

For long term storage, we suggest that pristimerin be stored as supplied at -20°C. It should be stable for at least two years.

Pristimerin is supplied as a crystalline solid. A stock solution may be made by dissolving the pristimerin in the solvent of choice. Pristimerin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of pristimerin in these solvents is approximately 3 mg/ml in ethanol and approximately 30 mg/ml in DMSO and DMF.

If aqueous stock solutions are required for biological experiments, they can best be prepared by diluting the organic solvent into aqueous buffers or isotonic saline. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Monoacylglycerol lipase (MAGL) hydrolyzes the endogenous cannabinoid 2-arachidonoyl glycerol (2-AG), terminating its capacity to activate cannabinoid receptors. Pristimerin is a naturally occurring terpenoid that potently inhibits MAGL (IC_{50} = 93 nM).[1] Its actions are rapid, reversible, and noncompetitive.[1] Pristimerin (1 µM) significantly increases 2-AG levels in isolated rat neurons, indicating that it inhibits endogenous MAGL in cultured cells.[1] Moreover, it does not increase levels of palmitoyl ethanolamide, suggesting that pristimerin does not affect the activity of fatty acid amide hydrolase (FAAH).

Reference

1. King, A.R., Dotsey, E.Y., Lodola, A., *et al.* Discovery of potent and reversible monoacylglycerol lipase inhibitors. *Chemistry & Biology* **16**, 1045-1052 (2009).

Related Products

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