

Pregnenolone acetate

Chemical Properties

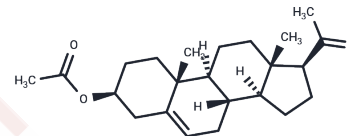
CAS No. : 1778-02-5

Formula: C₂₃H₃₄O₃

Molecular Weight: 358.51

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	Pregnenolone acetate is a powerful neurosteroid, the main precursor of various steroid hormones including steroid ketones. It acts as a signaling-specific inhibitor of cannabinoid CB1 receptor, inhibits the effects of tetrahydrocannabinol (THC) that are mediated by the CB1 receptors. It can protect the brain from cannabis intoxication
Targets(IC50)	Cannabinoid Receptor, Microtubule Associated, Endogenous Metabolite
In vitro	Pregnenolone likely acts as a signaling-specific negative allosteric modulator binding to a site distinct from that occupied by orthosteric ligands. Pregnenolone does not modify agonist binding but only agonist efficacy[1].
In vivo	Pregnenolone acetate is a powerful neurosteroid, the main precursor of various steroid hormones including steroid ketones. It acts as a signaling-specific inhibitor of cannabinoid CB1 receptor, inhibits the effects of tetrahydrocannabinol (THC) that are mediated by the CB1 receptors. It can protect the brain from cannabis intoxication[1].

Solubility Information

Solubility	DMSO: Insoluble, H ₂ O: Insoluble, (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7893 mL	13.9466 mL	27.8932 mL
5 mM	0.5579 mL	2.7893 mL	5.5786 mL
10 mM	0.2789 mL	1.3947 mL	2.7893 mL
50 mM	0.0558 mL	0.2789 mL	0.5579 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

Vallée M, et al. Pregnenolone can protect the brain from cannabis intoxication. *Science*. 2014 Jan 3;343(6166):94-8.

Ducharme N, et al. Brain distribution and behavioral effects of progesterone and pregnenolone after intranasal or intravenous administration. *Eur J Pharmacol*. 2010 Sep 1;641(2-3):128-34.

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