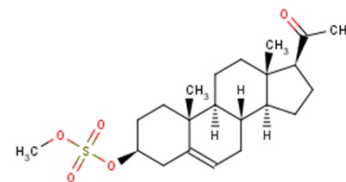


Pregnenolone monosulfate sodium salt

Chemical Properties

CAS No.:	1852-38-6
Formula:	C ₂₁ H ₃₁ NaO ₅ S
Molecular Weight:	418.52
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).



Biological Description

Description	Pregnenolone monosulfate sodium salt is a powerful neurosteroid, the main precursor of various steroid hormones including steroid ketones. Pregnenolone monosulfate sodium salt can protect the brain from cannabis intoxication. Pregnenolone monosulfate sodium salt acts as a signaling-specific inhibitor of the cannabinoid CB1 receptor. Pregnenolone monosulfate sodium salt also inhibits the effects of tetrahydrocannabinol (THC) that are mediated by the CB1 receptors.
Targets(IC ₅₀)	CB1;Human Endogenous Metabolite: None
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. The effect of THC is obviously attenuated when slices are pre-treated with Pregnenolone 100 nM (15.1±1.8 % of inhibition). These effects are likely due to a pre-synaptic action of Pregnenolone. Thus, Pregnenolone blocks the increase in the paired-pulse ratio induced by THC but does not modify either the amplitude or the decay time of miniature EPSC [1].
In vivo	Injections of Pregnenolone (2 and 4mg/kg) before each self-administration session reduce the intake of WIN 55,212-2 and decrease the break-point in a progressive ratio schedule. Pregnenolone administration (2-6 mg/kg) blocks THC-induced food-intake in Wistar rats and in C57BL/6N mice and blunts the memory impairment induced by THC in mice, but it does not modify these behaviors per se [1].

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.389 mL	11.947 mL	23.894 mL
5 mM	0.478 mL	2.389 mL	4.779 mL
10 mM	0.239 mL	1.195 mL	2.389 mL
50 mM	0.048 mL	0.239 mL	0.478 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Vallée M, et al. Pregnenolone can protect the brain from cannabis intoxication. Science. 2014 Jan 3;343(6166):94-8.
2. 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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