Data Sheet (Cat.No.T16574)

TargetMol
YOUR TARGET MOLECULES

Pregnenolone monosulfate sodium salt

Chemical Properties

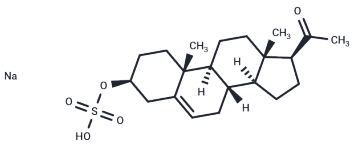
CAS No. : 1852-38-6

Formula: C21H32NaO5S

Molecular Weight: 419.53

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



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(IC50)	Others
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	Administering Pregnenolone (2 and 4mg/kg) prior to each self-administration session effectively reduces WIN 55,212-2 consumption and lowers the break-point in progressive ratio schedules. Moreover, Pregnenolone doses ranging from 2-6 mg/kg inhibit THC-induced food consumption in Wistar rats and C57BL/6N mice, as well as mitigate THC-related memory deficits in mice, without altering these behaviors independently [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3836 mL	11.9181 mL	23.8362 mL
5 mM	0.4767 mL	2.3836 mL	4.7672 mL
10 mM	0.2384 mL	1.1918 mL	2.3836 mL
50 mM	0.0477 mL	0.2384 mL	0.4767 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.

Reference

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