

## Pregnenolone monosulfate

## Chemical Properties

CAS No. : 1247-64-9

Formula: C<sub>21</sub>H<sub>32</sub>O<sub>5</sub>S

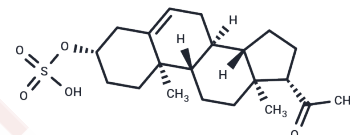
Molecular Weight: 396.54

Storage:

Store at low temperature, Store under nitrogen, Keep away from direct sunlight

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 monosulfate (3 $\beta$ -Hydroxy-5-pregnen-20-one monosulfate) is a potent nootropic steroid that positively regulates NMDA recordings and is utilized in the study of neuroticism and depression.
Targets(IC50)	Cannabinoid Receptor, Endogenous Metabolite, NMDAR, Autophagy, TRP/TRPV Channel
In vitro	Pregnenolone monosulfate, as a signaling-specific negative allosteric modulator, antagonizes most of the known behavioral and in vivo effects of THC. The effect of THC is significantly attenuated when slices are pre-treated with 100 nM Pregnenolone monosulfate (inhibition rate of 15.1 $\pm$ 1.8%).

## Solubility Information

Solubility	DMSO: 50 mg/mL (126.09 mM), Sonication is recommended. H <sub>2</sub> O: 1.58 mg/mL (3.98 mM), Sonication is recommended. ( $<$ 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.04 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	2.5218 mL	12.6091 mL	25.2181 mL
5 mM	0.5044 mL	2.5218 mL	5.0436 mL
10 mM	0.2522 mL	1.2609 mL	2.5218 mL
50 mM	0.0504 mL	0.2522 mL	0.5044 mL

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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.

Alan Shiels. TRPM3\_miR-204: a complex locus for eye development and disease. *Hum Genomics*. 2020 Feb 18;14(1):7.

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Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481