

Pregnanolone

Chemical Properties

CAS No.:	128-20-1
Formula:	C ₂₁ H ₃₄ O ₂
Molecular Weight:	318.5
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

Biological Description

Description	Pregnanolone is a cell membrane modulator potentially for the treatment of pain. Pregnanolone is an endogenous neurosteroid that is biosynthesized from progesterone. It is a positive allosteric modulator of the GABAA receptor, as well as a negative allosteric modulator of the glycine receptor, and is known to have sedative, anxiolytic, anesthetic, and anticonvulsant effects.
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Solubility Information

Solubility	DMSO: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.140 mL	15.699 mL	31.397 mL
5 mM	0.628 mL	3.140 mL	6.279 mL
10 mM	0.314 mL	1.570 mL	3.140 mL
50 mM	0.063 mL	0.314 mL	0.628 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

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2. Eppolito AK, Kodeih HR, Gerak LR. Using drug combinations to assess potential contributions of non-GABAA receptors in the discriminative stimulus effects of the neuroactive steroid pregnanolone in rats. *Physiol Behav*. 2014 Oct;137:33-41. doi: 10.1016/j.physbeh.2014.07.003. Epub 2014 Jul 26. PubMed PMID: 25072672; PubMed Central PMCID: PMC4184987.
3. Horishita T, Yanagihara N, Ueno S, Sudo Y, Uezono Y, Okura D, Minami T, Kawasaki T, Sata T. Neurosteroids allopregnanolone sulfate and pregnanolone sulfate have diverse effect on the α subunit of the neuronal voltage-gated sodium channels Nav1.2, Nav1.6, Nav1.7, and Nav1.8 expressed in xenopus oocytes. *Anesthesiology*. 2014 Sep;121(3):620-31. doi: 10.1097/ALN.0000000000000296. PubMed PMID: 24809977.
4. Holubova K, Nekovarova T, Pistovcakova J, Sulcova A, Stuchlík A, Vales K. Pregnanolone Glutamate, a Novel Use-Dependent NMDA Receptor Inhibitor, Exerts Antidepressant-Like Properties in Animal Models. *Front Behav Neurosci*. 2014 Apr 16;8:130. doi: 10.3389/fnbeh.2014.00130. eCollection 2014. PubMed PMID: 24795582; PubMed Central PMCID: PMC3997017.

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