

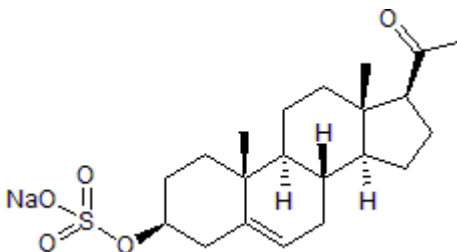
Product Name: Pregnenolone sulfate sodium salt
CAS Number: 1852-38-6
IUPAC Name: (3 β)-3-(Sulfooxy)-pregn-5-en-20-one sodium salt

Catalog No.: 5376

Batch No.: 1

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₁H₃₁NaO₅S.2H₂O
Batch Molecular Weight: 454.55
Physical Appearance: White solid
Solubility: water to 10 mM with sonication
 DMSO to 100 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.13 (Chloroform:Methanol:Acetic acid [20:3:2])
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	55.49	7.76	
Found	55.43	7.75	

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Highly potent neurosteroid; enhances intracellular Ca²⁺ upon NMDA receptor-mediated synaptic activity (EC₅₀ = ~2 pM) and potentiates NMDA responses. Activates CREB phosphorylation, augments LTP and cognitive behavior in rat memory models. Also activates TRPM3 channels.

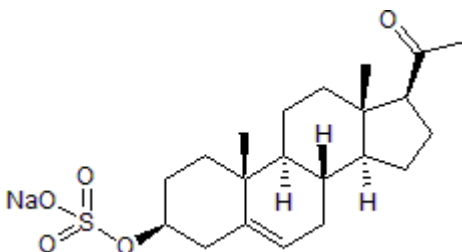
Physical and Chemical Properties:

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Storage: Store at +4°C

Solubility & Usage Info:

water to 10 mM with sonication
DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Li *et al* (2007) Neuroactive steroids and human recombinant rho1 GABA_C receptors. *J.Pharmacol.Exp.Ther.* **323** 236. PMID: 17636008.

Majeed *et al* (2010) Cis-isomerism and other chemical requirements of steroidal agonists and partial agonists acting at TRPM3 channels. *Br.J.Pharmacol.* **161** 430. PMID: 20735426.

Smith *et al* (2014) A role for picomolar concentrations of pregnenolone sulfate in synaptic activity-dependent Ca²⁺ signaling and CREB activation. *Mol.Pharmacol.* **86** 390. PMID: 25057049.

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