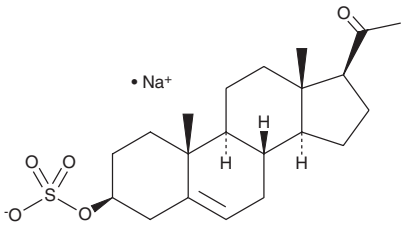
PRODUCT INFORMATION

Pregnenolone sulfate (sodium salt)

Item No. 21004

CAS Registry No.:	1852-38-6
Formal Name:	3-(sulfooxy)-pregn-5-en-20-one, monosodium salt
MF:	$C_{21}H_{31}O_5S \bullet Na$
FW:	418.5
Purity:	≥95%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Pregnenolone sulfate (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the pregnenolone sulfate (sodium salt) in the solvent of choice, which should be purged with an inert gas. Pregnenolone sulfate (sodium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of pregnenolone sulfate (sodium salt) in ethanol is approximately 2 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Pregnenolone sulfate (sodium salt) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, pregnenolone sulfate (sodium salt) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Pregnenolone sulfate (sodium salt) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Pregnenolone sulfate is a metabolite of the natural steroid hormone pregnenolone (Item No. 19864). Pregnenolone sulfate modulates NMDA receptor responses to exogenously applied glutamate and stimulates transient receptor potential melastatin 3 (TRPM3).[1-3]

References

1. Sedláček, M., Kořínek, M., Petrovič, M., *et al.* Neurosteroid modulation of ionotropic glutamate receptors and excitatory synaptic transmission. *Physiol. Res.* **57(Suppl 3)**, S49-S57 (2008).
2. Smith, C.C., Gibbs, T.T., and Farb, D.H. Pregnenolone sulfate as a modulator of synaptic plasticity. *Psychopharmacology (Berl)* **231(17),** 3537-3556 (2014).
3. Thiel, G., Müller, I., and Rössler, O.G. Signal transduction *via* TRPM3 channels in pancreatic β-cells. *J. Mol. Endocrinol.* **50(3)**, R75-R83 (2013).

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