

Product Name: Alphaxalone

Catalog No.: 3046

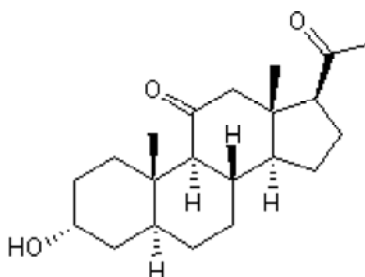
Batch No.: 3

CAS Number: 23930-19-0

IUPAC Name: (3 α ,5 α)-3-Hydroxypregnane-11,20-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₁H₃₂O₃
Batch Molecular Weight: 332.48
Physical Appearance: White solid
Solubility: DMSO to 100 mM
 ethanol to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.6 (Ethyl acetate (100%))
HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = +109.7 (Concentration = 1.2, Solvent = Chloroform)
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	75.86	9.7	
Found	75.52	9.6	

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

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IUPAC Name: (3 α ,5 α)-3-Hydroxypregnane-11,20-dione

Description:

A neurosteroid anesthetic that directly activates and potentiates GABA_A receptor-activated membrane current (I_{GABA}). Efficacy but not potency is determined by the alpha subunit of the receptor (EC₅₀ values are 1.4, 1.8, 2.1, 2.4 and 2.5 μ M for α 1 β 1 γ 3, α 1 β 1 γ 1, α 2 β 1 γ 2L and α 1 β 1 γ 2L isoforms respectively).

Physical and Chemical Properties:

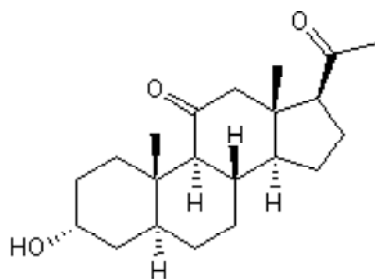
Batch Molecular Formula: C₂₁H₃₂O₃

Batch Molecular Weight: 332.48

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM

ethanol 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.

Other Information:

INFORMATION FOR CUSTOMERS IN THE USA ONLY

This product is a Schedule IV DEA controlled substance and customers in the USA are required to hold a controlled substance registration in order to purchase and possess this material (in accordance with Title 21 code of federal regulations part 1300 to end).

References:

Zecharia *et al* (2009) The involvement of hypothalamic sleep pathways in general anesthesia: Testing the hypothesis using the GABA_A receptor β ₃N265M knock-in mouse. *J.Neurosci.* **29** 2177. PMID: 19228970.

Wegner *et al* (2007) Auto-modulation of neuroactive steroids on GABA_A receptors: a novel pharmacological effect. *Neuropharmacology.* **52** 672. PMID: 17084864.

Maitra *et al* (1999) Subunit dependent modulation of GABA_A receptor function by neuroactive steroids. *Brain Res.* **819** 75. PMID: 10082863.

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