



# **Certificate of Analysis**

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Product Name: THDOC Catalog No.: 6334 Batch No.: 1

CAS Number: 567-02-2

IUPAC Name:  $(3\alpha,5\alpha)$ -3,21-Dihydroxypregnan-20-one

### 1. PHYSICAL AND CHEMICAL PROPERTIES

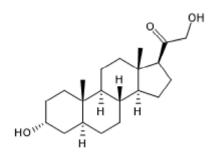
Batch Molecular Formula: $C_{21}H_{34}O_3$ Batch Molecular Weight:334.49Physical Appearance:White solid

**Solubility:** DMSO to 100 mM

ethanol to 100 mM

Storage: Store at RT

**Batch Molecular Structure:** 



### 2. ANALYTICAL DATA

**TLC:**  $R_f = 0.4$  (Dichloromethane:Methanol [95:5])

**HPLC:** Shows 97% purity

<sup>1</sup>H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

**Optical Rotation:**  $[\alpha]_D = +96.9$  (Concentration = 1, Solvent = Methanol)

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 75.41 10.25 Found 75.27 10.29

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# **Product Information**

Print Date: Jan 17th 2019

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IUPAC Name:  $(3\alpha,5\alpha)$ -3,21-Dihydroxypregnan-20-one

#### **Description:**

Positive modulator of GABA<sub>A</sub> receptors. Potentiates neuronal response to low concentrations of GABA at  $\alpha4\beta1\delta$  GABA<sub>A</sub> receptors in vitro. Endogenous neurosteroid.

## **Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>21</sub>H<sub>34</sub>O<sub>3</sub> Batch Molecular Weight: 334.49 Physical Appearance: White solid

**Minimum Purity:** >95%

#### **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.

#### References:

**Adams** *et al* (2015) Modulation of neurosteroid potentiation by protein kinases at synaptic- and extrasynaptic-type GABA<sub>A</sub> receptors. Neuropharmacology. *88* 63. PMID: 25278033.

**Villumsen** et al (2015) Pharmacological characterisation of murine  $\alpha$ 4β1δ GABA<sub>A</sub> receptors expressed in Xenopus oocytes. BMC.Neurosci. **16**. PMID: 25887256.