Product Data Sheet

Product Name: Tetrahydrodeoxycorticosterone
Cat. No.: GC63218

Chemical Properties

Cas. No.	567-03-3		
Formula	$C_{21}H_{34}O_3$	M.Wt	334.49
Solubility		Storage	Store at 2-8°C,protect from light
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure			

Background

Tetrahydrodeoxycorticosterone, an neurosteroid, is a potent positive allosteric modulator (PAM) of GABAA receptor. Tetrahydrodeoxycorticosterone has potent neuroinhibitory properties[1][2].

The endogenous neurosteroid Tetrahydrodeoxycorticosterone (THDOC) at physiological concentrations selectively enhances tonic currents mediated by αβδ receptors[1].In hippocampus, 10 nM Tetrahydrodeoxycorticosterone reduces neuronal excitability by augmenting tonic αβδ receptor currents. In thalamocortical neurons, although 100 nM Tetrahydrodeoxycorticosterone enhances tonic currents, 10 nM Tetrahydrodeoxycorticosterone does not[1].

Concentrations of Tetrahydrodeoxycorticosterone (THDOC) in brain tissue from mice with hepatic encephalopathy (HE) resulting from toxic liver injury are sufficient to induce sedation in animals of the same species[2].

[1]. Hua-Jun Feng, et al. Comparison of αβδ and αβγ GABA A receptors: Allosteric modulation and identification of subunit arrangement by site-selective general anesthetics. Pharmacol Res. 2018 Jul;133:289-300.
[2]. Roger F Butterworth. Neurosteroids in hepatic encephalopathy: Novel insights and

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new therapeutic opportunities. J Steroid Biochem Mol Biol. 2016 Jun;160:94-7.