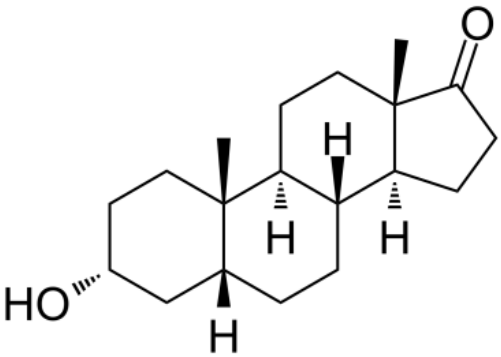
Product Data Sheet

Product Name: Etiocholanolone
Cat. No.: GC61788

Chemical Properties

Cas. No.	53-42-9		
SMILES	C[C@@]1(CC2)[C@](CC3)([H])[C@](CC[C@]1([H])C[C@@H]2O)([H])[C@@](CCC4=O)([H])[C@]34C		
Formula	$C_{19}H_{30}O_2$	M.Wt	290.44
Solubility	DMSO: 100 mg/mL (344.31 mM)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C 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

Etiocholanolone (5β-Androsterone) is the excreted metabolite of testosterone and has anticonvulsant activity[1]. Etiocholanolone is a less potent neurosteroid positive allosteric modulator (PAM) of the GABAA receptor than its enantiomer form[2].

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Etiocholanolone (10 μM) coapplication with GABA leads to an increase in the relative frequency of long openings (fraction of OT3, site A2 effect), but it is ineffective at increasing the duration of long openings (site B effect) or at decreasing the relative frequency of the activation-related closed time component (site A1 effect)[2].

Etiocholanolone (intraperitoneal injection; 0-109.1 mg/kg; single dose) exhibits ED50 values of 57.6 and 109.1 mg/kg in the 6-Hz and PTZ tests, respectively. Protective activity in the 6-Hz test of 5β,3α-A persists for 2 h and is shorter than ent-5β,3α-A treatment (3 hours) in mice[1].

[1]. Ping Li,et al. Natural and Enantiomeric Etiocholanolone Interact With Distinct Sites on the Rat alpha1beta2gamma2L GABAA Receptor. Mol Pharmacol. 2007 Jun;71(6):1582-90. [2]. Dorota Zolkowska, et al. Anticonvulsant Potencies of the Enantiomers of the Neurosteroids Androsterone and Etiocholanolone Exceed Those of the Natural Forms. Psychopharmacology (Berl). 2014 Sep;231(17):3325-32.

Caution: Product has not been fully validated for medical applications. For research use only.
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