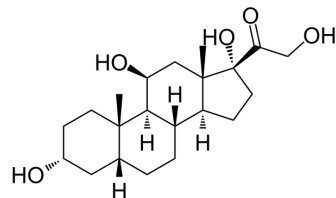


## Tetrahydrocortisol

<b>Cat. No.:</b>	HY-129630		
<b>CAS No.:</b>	53-02-1		
<b>Molecular Formula:</b>	C <sub>21</sub> H <sub>34</sub> O <sub>5</sub>		
<b>Molecular Weight:</b>	366.49		
<b>Target:</b>	Endogenous Metabolite		
<b>Pathway:</b>	Metabolic Enzyme/Protease		
<b>Storage:</b>	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 50 mg/mL (136.43 mM; Need ultrasonic)

Solvent	Mass	Concentration		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.7286 mL	13.6429 mL	27.2859 mL
	5 mM	0.5457 mL	2.7286 mL	5.4572 mL
	10 mM	0.2729 mL	1.3643 mL	2.7286 mL

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 1.25 mg/mL (3.41 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 1.25 mg/mL (3.41 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 1.25 mg/mL (3.41 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Tetrahydrocortisol is cortisol metabolite. The urinary Tetrahydrocortisol/Tetrahydrocortisone ratio decreases with increasing 11β-hydroxysteroid dehydrogenase (11β-HSD) activity<sup>[1][2]</sup>.

### REFERENCES

- [1]. Webster SP, et al. Selection and early clinical evaluation of the brain-penetrant 11β-hydroxysteroid dehydrogenase type 1 (11β-HSD1) inhibitor UE2343 (Xanamem™). Br J Pharmacol. 2017 Mar;174(5):396-408.

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[2]. Turpeinen U, et al. Determination of free tetrahydrocortisol and tetrahydrocortisone ratio in urine by liquid chromatography-tandem mass spectrometry. Scand J Clin Lab Invest. 2006;66(2):147-59.

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

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