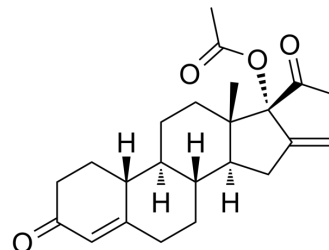


Nestoron

Cat. No.:	HY-13071		
CAS No.:	7759-35-5		
Molecular Formula:	C ₂₃ H ₃₀ O ₄		
Molecular Weight:	370.48		
Target:	Progesterone Receptor		
Pathway:	Vitamin D Related/Nuclear Receptor		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro	DMSO : 33.33 mg/mL (89.96 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.6992 mL	13.4960 mL	26.9920 mL
		5 mM	0.5398 mL	2.6992 mL	5.3984 mL
10 mM		0.2699 mL	1.3496 mL	2.6992 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (6.75 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (6.75 mM); Clear solution				
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (6.75 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	Nestoron (ST-1435) is a 19-norprogesterone derivative with high affinity and selectivity for progesterone receptors. Nestoron is a highly selective and potent progestogen that can be used as a hormonal contraceptive ^{[1][2]} .
IC ₅₀ & Target	Progesterone Receptors ^[1]
In Vivo	Nestoron (400 μCi ³ H Nestoron/kg BW; subcutaneous injection; female Sprague-Dawley rats) treatment results in the C _{max} in the blood and plasma are 58.1 and 95.5 ng equiv. ³ H Nestoron/g, with t _{1/2} of 15.6 hours. Approximately, 81.4% and 7.62% of

the administered dose is excreted via feces and urine, respectively^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	27 adult, female, Sprague-Dawley rats (200-225 g; age: 8 weeks) ^[1]
Dosage:	400 μCi ^3H Nestorone/kg BW
Administration:	Subcutaneous injection (Pharmacokinetic study)
Result:	The mean peak concentrations of radioactivity (C_{max}) in the blood and plasma were 58.1 and 95.5 ng equiv./g, with $t_{1/2}$ of 15.6 hours. Approximately, 81.4% and 7.62% of the administered dose was excreted via feces and urine, respectively.

REFERENCES

[1]. Prasad PV, et al. Single-dose pharmacokinetics of Nestorone, a potential female-contraceptive. *Steroids*. 2010 Mar;75(3):252-64. Epub 2010 Jan 11.

[2]. Hussain R, et al. Progesterone and Nestorone facilitate axon remyelination: a role for progesterone receptors. *Endocrinology*. 2011 Oct;152(10):3820-31.

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

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