Nestoron

Cat. No.: HY-13071

CAS No.: 7759-35-5

Molecular Formula: $C_{23}H_{30}O_4$

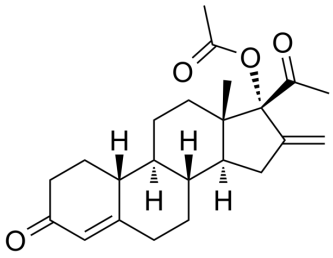
Molecular Weight: 370.48

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)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
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 ^{3}H 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.

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