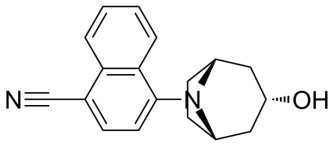
AC-262536

Cat. No.:	HY-122025
CAS No.:	870888-46-3
Molecular Formula:	$C_{18}H_{18}N_2O$
Molecular Weight:	278.35
Target:	Androgen Receptor
Pathway:	Vitamin D Related/Nuclear Receptor
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (179.63 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.5926 mL	17.9630 mL	35.9260 mL
	5 mM	0.7185 mL	3.5926 mL	7.1852 mL
	10 mM	0.3593 mL	1.7963 mL	3.5926 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (8.98 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (8.98 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 0.56 mg/mL (2.01 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

AC-262536 is a selective and non-steroidal androgen receptor modulators (SARMs) with beneficial anabolic effects. AC-262536 exhibits potent agonist activity at the androgen receptor, with an affinity in the low nanomolar range (1-10 nM)[1].

In Vitro

AC-262536 dose-dependently inhibits dihydroxytestosterone (DHT)-induced proliferation of LNCaP. The effects are significant with 100 nM AC-262536 (%inhibition 47.2±12.2), and reaches a plateau with 1 μM treatment (%inhibition 50.7±7.6). Thus, AC-262536 can act as a functional antagonist in prostate cells[1].

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

In Vivo

AC-262536 (3, 10, 30 mg/kg) reverses the luteinizing hormone (LH) spike in castrated rats[1].

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Animal Model:	Male Sprague-Dawley rats (200-225 g)[1]
Dosage:	3, 10 and 30 mg/kg
Administration:	Administered subcutaneously; once daily for 14 consecutive days
Result:	Significantly decreased LH levels by about 40% at the 3 mg/kg dose. The ED_{50} was determined to be 2.8 mg/kg. At the 10 and 30 mg/kg doses, the effects of AC-262536 were significantly stronger than Testosterone Propionate (TP) : 1.91±0.32 ng/mL and 1.53±0.34 ng/mL vs. 3.12±0.69 ng/mL, respectively.

REFERENCES

[1]. Fabrice Piu, et al. Pharmacological characterization of AC-262536, a novel selective androgen receptor modulator. J Steroid Biochem Mol Biol. 2008 Mar;109(1-2):129-37.

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