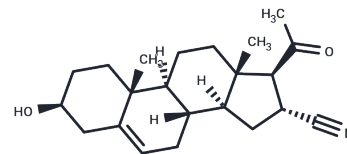


Pregnenolone Carbonitrile

Chemical Properties

CAS No. :	1434-54-4
Formula:	C ₂₂ H ₃₁ NO ₂
Molecular Weight:	341.49
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Pregnenolone Carbonitrile (5-Pregnen-3β-ol-20-one-16α-carbonitrile) is an activator of rodent-PXR and induces the expression of CYP3A.
Targets(IC50)	P450
In vitro	Pregnenolone Carbonitrile is hepatoprotective by increasing resistance to subsequent stressful insults[4].
In vivo	In WT mice, Pregnenolone Carbonitrile (40 mg/kg/day; i.p.) induces the expression of CYP3A11 and CYP2B10 at the mRNA, protein, and enzymatic levels[2]. In adult female Sprague-Dawley rats, Pregnenolone Carbonitrile (100 mg/kg; i.p.) induces the expression of CYP3A mRNA[3]. In male Sprague-Dawley rats, Pregnenolone Carbonitrile (35 mg/kg; gavage) increase in Pgp expression[4].

Solubility Information

Solubility	DMSO: 30 mg/mL (87.85 mM), Sonication and heating to 60°C are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9283 mL	14.6417 mL	29.2834 mL
5 mM	0.5857 mL	2.9283 mL	5.8567 mL
10 mM	0.2928 mL	1.4642 mL	2.9283 mL
50 mM	0.0586 mL	0.2928 mL	0.5857 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Carylyn J Marek, et al. Pregnenolone-16alpha-carbonitrile inhibits rodent liver fibrogenesis via PXR (pregnane X receptor)-dependent and PXR-independent mechanisms. Biochem J. 2005 May 1;387(Pt 3):601-8.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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