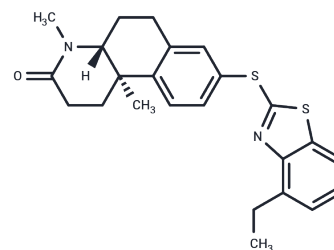


Izonsteride

Chemical Properties

CAS No. :	176975-26-1
Formula:	C ₂₄ H ₂₆ N ₂ O ₅ S ₂
Molecular Weight:	422.61
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Izonsteride (LY320236) is a selective and potent 5alpha reductase inhibitor with dual action on the type I and type II isoforms of the enzyme. Izonsteride is used in the treatment of oncology and genitourinary disorders, and may be used in the study of prostate cancer.
Targets(IC50)	Reductase
In vitro	LY320236 is a benzoquinolinone (BQ) that inhibits 5alpha-R activity in human scalp skin ($K_i(\text{type I})=28.7 \pm 1.87$ nM) and prostatic homogenates ($K_i(\text{type II})=10.6 \pm 4.5$ nM). Lineweaver-Burk, Dixon, and non-linear analysis methods were used to evaluate the kinetics of 5alpha-R inhibition by LY320236. Non-linear modeling of experimental data evaluated $V(\text{max})$ in the presence or absence of LY320236. Experimental data modeled to the following equation $1/v = 1/v_{\text{max}} + 1/v_{\text{max}} \cdot \frac{1}{1 + \frac{[I]}{K_i}}$ fixing the $\ln 0c$ value equal to 1.0 or 0 are consistent with non-competitive or competitive inhibition, respectively. LY320236 is a competitive inhibitor of type I 5alpha-R ($\ln 0c=0$, $K_i=3.39 \pm 0.38$, RMSE = 1.300) and a non-competitive inhibitor of type II 5alpha-R ($\ln 0c=1$, $K_i=29.7 \pm 3.4$, RMSE = 0.0592). These data are in agreement with the linear transformation of the data using Lineweaver-Burk and Dixon analyses. These enzyme kinetic data support the contention that the BQ LY320236 is a potent dual inhibitor with differing modes of activity against the two known human 5-alpha-reductase isozymes. LY320236 represents a class of non-steroidal 5alpha-R inhibitors with potential therapeutic utility in treating a variety of androgen-dependent disorders.[1]

Solubility Information

Solubility	DMSO: 6.88 mg/mL (16.27 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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A DRUG SCREENING EXPERT

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3662 mL	11.8312 mL	23.6625 mL
5 mM	0.4732 mL	2.3662 mL	4.7325 mL
10 mM	0.2366 mL	1.1831 mL	2.3662 mL
50 mM	0.0473 mL	0.2366 mL	0.4732 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

McNulty AM, et al. Kinetic analysis of LY320236: competitive inhibitor of type I and non-competitive inhibitor of type II human steroid 5 α -reductase. J Steroid Biochem Mol Biol. 2000;72(1-2):13-21.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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