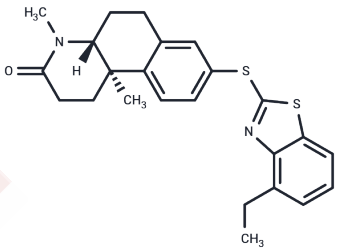
Data Sheet (Cat.No.T27643)

TargetMol

Izonsteride

Chemical Properties



CAS No. : 176975-26-1

Formula: C24H26N2OS2

Molecular Weight: 422.61

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

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	Izonsteride is a benzoquinolinone (BQ) that inhibits 5alpha-R activity in human scalp skin (Ki(typeI)=28.7+/-1.87 nM) and prostatic homogenates (Ki(typeII)=10.6+/-4.5 nM). Lineweaver-Burk, Dixon, and non-linear analysis methods were used to evaluate the kinetics of 5alpha-R inhibition by Izonsteride. Non-linear modeling of experimental data evaluated V(max) in the presence or absence of Izonsteride. Experimental data modeled to the following equation 1v=+ fixing the In0c value equal to 1.0 or 0 are consistent with non-competitive or competitive inhibition, respectively. Izonsteride is a competitive inhibitor of type I 5alpha-R (In0c=0, Ki=3.39+/-0.38, RMSE = 1.300) and a non-competitive inhibitor of type II 5alpha-R (In0c=1, Ki=29. 7+/-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 Izonsteride is a potent dual inhibitor with differing modes of activity against the two known human 5-alpha-reductase isozymes. Izonsteride 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 (16.28 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

McNulty AM, et al. Kinetic analysis of LY320236: competitive inhibitor of type I and non-competitive inhibitor of type II human steroid 5alpha-reductase. J Steroid Biochem Mol Biol. 2000;72(1-2):13-21.
Eisenberger MA, et al. Phase I and clinical pharmacology of a type I and II, 5-alpha-reductase inhibitor (LY320236) in prostate cancer: elevation of estradiol as possible mechanism of action. Urology. 2004;63(1):114-119.
Titus M A, et al. 5α-reductase isozymes in castration-recurrent prostate cancer. Androgen Action in Prostate Cancer. 2009: 175-185.