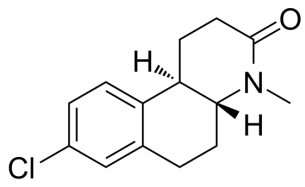
LY191704

Cat. No.:	HY-118091
CAS No.:	146117-78-4
Molecular Formula:	$C_{14}H_{16}ClNO$
Molecular Weight:	249.74
Target:	5 alpha Reductase
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



Relative stereochemistry

BIOLOGICAL ACTIVITY

Description	LY191704, as a benzoquinolinone, is a potent, nonsteroidal, noncompetitive and selective human type I 5α-reductase inhibitor. LY191704 is a racemic mixture of the compounds LY300502 and LY300503. LY191704 may be useful in the research of human endocrine disorders associated with overproduction of dihydrotestosterone (DHT) by 5α-reductase type 1[1][2].
IC_{50} & Target	Human Type I 5α-Reductase[1][2]
In Vitro	LY191704 (0.001-100 uM) inhibits the conversion of testosterone to DHT with an IC_{50} of 10 nM in Hs68 cells. LY191704 inhibits the enzyme expressed by the human cells with an IC_{50} of 12 nM but is virtually inactive against the 5α-reductase expressed by rat prostate cells. LY191704 is a potent and specific inhibitor of human 5α-reductase type 1 but had little or no activity against human 5α-reductase type 2 or rat 5α-reductase type 1. A K_i value of 17.1 μM is determined for the human type 2 enzyme, indicating that LY191704 demonstrates an 5000-fold selectivity for the human type 1 isozyme[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	LY191704 (10, 30, or 100 mg/kg; p.o.; 1 month) increases plasma concentrations[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Rats[1]
Dosage:	10, 30, or 100 mg/kg
Administration:	P.o.; 1 month
Result:	Increased plasma concentrations.

REFERENCES

[1]. Farid NA, et al. Stereoselective disposition of the enantiomers of the benzoquinolinone LY191704, a human type I 5 alpha-reductase inhibitor. Differences between rats and dogs. Drug Metab Dispos. 1996;24(10):1162-1165.

[2]. Hirsch KS, et al. LY191704: a selective, nonsteroidal inhibitor of human steroid 5 alpha-reductase type 1. Proc Natl Acad Sci U S A. 1993;90(11):5277-5281.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA