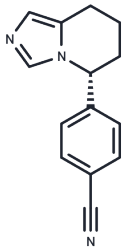
Data Sheet (Cat.No.T38424)

TargetMol

(R)-Fadrozole

Chemical Properties



CAS No. : 102676-87-9

Formula: C14H13N3

Molecular Weight: 223.27

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	(R)-Fadrozole ((R)-CGS 16949A; FAD286) is a potent nonsteroidal inhibitor. (R)-Fadrozole also inhibits human placental aromatase (pIC 50 = 6.17) and aldosterone biosynthesis. (R)-Fadrozole reverses cardiac fibrosis in spontaneously hypertensive heart failure rats..
Targets(IC50)	Others
In vitro	The (-)-enantiomer with the S-absolute configuration is responsible for the high aromatase inhibitory activity of (R)-Fadrozole[1].
In vivo	Administration of (R)-fadrozole and (S)-fadrozole (0.24 and 1.2 mg/kg; daily; oral) consistently lowers plasma aldosterone levels. However, a reduction in the urinary aldosterone excretion rate was solely observed with (S)-fadrozole. Notably, (R)-fadrozole at the same dosages was effective in reducing preexisting left ventricular interstitial fibrosis by 50%, contrasting with canrenoate's 42% reduction. Unlike its isomer, (S)-fadrozole exhibited no antifibrotic effects. This study utilized SHHF rats, implementing a dosage regimen of 0.24 and 1.2 mg/kg administered orally on a daily basis, which led to decreased plasma aldosterone levels and a significant reversal of left ventricular interstitial fibrosis.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.4789 mL	22.3944 mL	44.7888 mL
5 mM	0.8958 mL	4.4789 mL	8.9578 mL
10 mM	0.4479 mL	2.2394 mL	4.4789 mL
50 mM	0.0896 mL	0.4479 mL	0.8958 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

Furet P, et al. Aromatase inhibitors: synthesis, biological activity, and binding mode of azole-type compounds. J Med Chem. 1993;36(10):1393-1400.

Minnaard-Huiban M, et al. Fadrozole reverses cardiac fibrosis in spontaneously hypertensive heart failure rats: discordant enantioselectivity versus reduction of plasma aldosterone. Endocrinology. 2008;149(1):28-31.

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