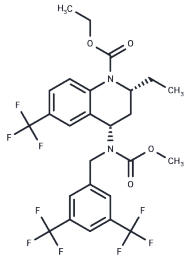
Data Sheet (Cat.No.T2499)

TargetMol

Torcetrapib

Chemical Properties



CAS No. : 262352-17-0

Formula: C26H25F9N2O4

Molecular Weight: 600.47

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

Biological Description

Description	Torcetrapib (CP-529414) is a cholesteryl ester transfer protein (CETP) inhibitor designed to reduce the heterotypic transfer of cholesteryl ester from HDL to LDL and/or VLDL. It failed in phase III trials due to an excess of deaths.
Targets(IC50)	CETP
In vitro	In healthy young adults, daily doses of Torcetrapib at 10 mg, 30 mg, 60 mg, 120 mg, and twice daily at 120 mg increased plasma high-density lipoprotein cholesterol (HDL-C) levels by 16%, 28%, 62%, 73%, and 91%, respectively, without significant changes in total plasma cholesterol (TPC). In rabbits fed an atherogenic diet, Torcetrapib (90 mg/kg/day) more than tripled the plasma HDL-C levels and increased apoA-I levels by 2.5 times. For healthy individuals and patients with moderate hypercholesterolemia, 60 mg and 120 mg daily doses of Torcetrapib raised HDL cholesterol levels by 50% and 60%, respectively. The 60 mg daily dosage enhanced HDL-mediated net cholesterol efflux primarily by increasing HDL concentration, whereas the 120 mg daily dosage did so both by raising HDL concentration and by enhancing efflux at matched HDL concentrations. In the healthy young adult group, taking less than 100 mg of Torcetrapib altered the plasma distribution of cholesteryl ester transfer protein (CETP) 2 hours post-administration, as evidenced by an apparent shift in CETP to larger molecular forms. For patients at high risk of cardiovascular disease, 12 hours post-treatment with Torcetrapib led to a 72.1% increase in HDL-C, a 24.9% decrease in low-density lipoprotein cholesterol (LDL-C), a rise in systolic blood pressure of 5.4 mm Hg, and alterations in serum potassium, sodium, bicarbonate, and aldosterone
In vivo	Torcetrapib (1 μM) significantly enhances the expression of the steroidogenic genes CYP11B2 and CYP11B1 in the H295R cell line. Treatment with Torcetrapib for 24 or 48 hours increases aldosterone release from H295R cells in a dose-dependent manner, with an EC50 of approximately 80 nM. This effect is mediated by calcium channels, as calcium channel blockers completely inhibit the corticosteroid release and calcium increase induced by Torcetrapib.

Solubility Information

Solubility	DMSO: 30 mg/mL (49.96 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6654 mL	8.3268 mL	16.6536 mL
5 mM	0.3331 mL	1.6654 mL	3.3307 mL
10 mM	0.1665 mL	0.8327 mL	1.6654 mL
50 mM	0.0333 mL	0.1665 mL	0.3331 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

Clark RW, et al. Arterioscler Thromb Vasc Biol, 2004, 24(3), 490-497.
Hu X, et al. Endocrinology, 2009, 150(5), 2211-2219.
Barter PJ, et al. N Engl J Med, 2007, 357(21), 2109-2122.
Yvan-Charvet L, et al. Arterioscler Thromb Vasc Biol, 2007, 27(5), 1132-1138.
Morehouse LA, et al. J Lipid Res, 2007, 48(6), 1263-1272.