

Data Sheet

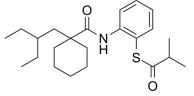
Product Name: Dalcetrapib
Cat. No.: CS-0916
CAS No.: 211513-37-0
Molecular Formula: C23H35NO2S

Molecular Weight: 389.59
Target: CETP

Pathway: Metabolic Enzyme/Protease

Solubility: DMSO : \geq 50 mg/mL (128.34 mM); H2O : < 0.1 mg/mL

(insoluble)



BIOLOGICAL ACTIVITY:

Dalcetrapib (JTT-705; RO-4607381) is a rhCETP inhibitor with IC50 of $0.2~\mu M$ that increases the plasma HDL cholesterol. IC50 value: $0.2~\mu M$ [1] Target: CETP in vitro: Dalcetrapib modulates CETP activity. Dalcetrapib induces a conformational change in CETP, when added to human plasma. CETP-induced pre- β -HDL formation in human plasma is unchanged by Dalcetrapib $\leq 3~\mu M$ and increased at $10~\mu M$. Dalcetrapib statistically and significantly increases pre- β -HDL formation [1]. Dalcetrapib achieves 50% inhibition of CETP activity in human plasma at a concentration of $9~\mu M$ [2]. Dalcetrapib inhibits the CETP activity of media in HepG2 in a dose-dependent manner [3]. in vivo: Treatment with Dalcetrapib leads to significant increases in HDL-C levels. In hamsters injected with [3H]cholesterol-labeled autologous macrophages Dalcetrapib significantly increases fecal elimination of both [3H]neutral sterols and [3H]bile acids. Dalcetrapib increases plasma HDL-[3H]cholesterol [1]. Dalcetrapib has 95% inhibition of CETP activity in male Japanese white rabbits at an oral dose of 30 mg/kg. Dalcetrapib increases the plasma HDL cholesterol level by 27% and 54%, respectively, when given at oral doses of 30 mg/kg or 100 mg/kg once a day for 3 days to male Japanese white rabbits [2].

References:

- [1]. Niesor EJ, et al. Modulating cholesteryl ester transfer protein activity maintains efficient pre- β -HDL formation and increases reverse cholesterol transport. J Lipid Res. 2010, 51(12), 3443-3454.
- [2]. Shinkai H, et al. J Med Chem. bis(2-(Acylamino)phenyl) disulfides, 2-(acylamino)benzenethiols, and S-(2-(acylamino)phenyl) alkanethioates as novel inhibitors of cholesteryl ester transfer protein. 2000, 43(19), 3566-3572.
- [3]. Huang Z, et al. Dual effects on HDL metabolism by cholesteryl ester transfer protein inhibition in HepG2 cells. Am J Physiol Endocrinol Metab. 2003, 284(6), E1210-E1219.

CAIndexNames:

 $Propanethioic\ acid,\ 2-methyl-,\ S-[2-[[[1-(2-ethylbutyl)cyclohexyl]carbonyl]amino] phenyl]\ ester$

SMILES:

CC(C)C(SC1=C(NC(C2(CC(CC)CC)CCCC2)=O)C=CC=C1)=O

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

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Page 1 of 1 www.ChemScene.com