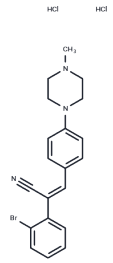
Data Sheet (Cat.No.T7821)

TargetMol

DG172 dihydrochloride

Chemical Properties



CAS No. : 1361504-77-9

Formula: C20H22BrCl2N3

Molecular Weight: 455.2

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	DG172 dihydrochloride (DG-172 dihydrochloride) is an antagonist of PPARβ/δ(IC50 : 27 nM).
Targets(IC50)	PPAR
In vitro	DG172 is a novel PPARβ/δ-selective ligand showing high binding affinity (IC(50) = 27 nM) and potent inverse agonistic properties.?DG172 selectively inhibited the agonist-induced activity of PPARβ/δ, enhanced transcriptional corepressor recruitment, and down-regulated transcription of the PPARβ/δ target gene Angptl4 in mouse myoblasts (IC(50) = 9.5 nM).?Importantly, DG172 was bioavailable after oral application to mice with peak plasma levels in the concentration range of its maximal inhibitory potency, suggesting that 37 will be an invaluable tool to elucidate the functions and therapeutic potential of PPARβ/δ[1].

Solubility Information

Solubility	H2O: 14.29 mg/mL (31.39 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1968 mL	10.9842 mL	21.9684 mL
5 mM	0.4394 mL	2.1968 mL	4.3937 mL
10 mM	0.2197 mL	1.0984 mL	2.1968 mL
50 mM	0.0439 mL	0.2197 mL	0.4394 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

Lieber S, et al. (Z)-2-(2-bromophenyl)-3-{[4-(1-methyl-piperazine)amino]phenyl}acrylonitrile (DG172): an orally bioavailable PPARβ/δ-selective ligand with inverse agonistic properties. J Med Chem. 2012 Mar 22;55(6):2858-68.
Yao PL, Chen L, Hess RA,et al.Peroxisome Proliferator-activated Receptor-D (PPARD) Coordinates Mouse Spermatogenesis by Modulating Extracellular Signal-regulated Kinase (ERK)-dependent Signaling.J Biol Chem. 2015 Sep 18;290(38):23416-31.