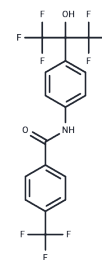


SR1078

Chemical Properties

CAS No. : 1246525-60-9
 Formula: C₁₇H₁₀F₉NO₂
 Molecular Weight: 431.25
 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	SR1078 is an agonist of retinoic acid receptor-related orphan receptor (ROR) α/γ .
Targets(IC50)	ROR
In vitro	SR1078 is a synthetic ROR α /ROR γ ligand that modulates the conformation of ROR γ in biochemical assays and activates ROR α and ROR γ -driven transcription. It stimulates the expression of endogenous ROR target genes in HepG2 cells expressing both ROR α and ROR γ . In a cell-based chimeric receptor Gal4 DNA-binding domain-NR ligand-binding domain cotransfection assay, SR1078 significantly inhibits the constitutive transactivation activity of ROR α and ROR γ , without affecting FXR, LXR α , or LXR β . Treatment of cells with SR1078 (10 μ M) in a ROR α cotransfection assay significantly increases transcription, and similarly, in a ROR γ cotransfection assay, SR1078 stimulates ROR γ -dependent transcription activity[1].
In vivo	The pharmacokinetics of SR1078 were evaluated in mice, revealing notable exposure. Plasma concentrations reached 3.6 μ M one hour post 10 mg/kg i.p. injection and remained above 800 nM at 8 hours. These levels are adequate for proof-of-principle experiments assessing ROR target gene expression. Mice treated with SR1078 (10 mg/kg i.p.) showed significant stimulation of both G6Pase and FGF21 gene expression in liver mRNA, compared to vehicle control [1].

Solubility Information

Solubility	DMSO: 45 mg/mL (104.35 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3188 mL	11.5942 mL	23.1884 mL
5 mM	0.4638 mL	2.3188 mL	4.6377 mL
10 mM	0.2319 mL	1.1594 mL	2.3188 mL
50 mM	0.0464 mL	0.2319 mL	0.4638 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

Wang Y, et al. Identification of SR1078, a synthetic agonist for the orphan nuclear receptors ROR α and ROR γ . ACS Chem Biol. 2010 Nov 19;5(11):1029-34.

Dou X, Huo T, Liu Y, et al. Discovery of novel and selective farnesoid X receptor antagonists through structure-based virtual screening, preliminary structure-activity relationship study, and biological evaluation. European Journal of Medicinal Chemistry. 2024: 116323.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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