

GSK4112

Chemical Properties

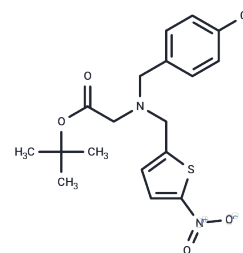
CAS No. : 1216744-19-2

Formula: C₁₈H₂₁ClN₂O₄S

Molecular Weight: 396.89

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	GSK4112 (SR6452) is a Rev-erb α agonist with an EC ₅₀ of 0.4 μ M and serves as a small molecule chemical probe for studying the cell biology of the nuclear heme receptor Rev-erb α .
Targets(IC ₅₀)	Apoptosis, Autophagy, REV-ERB
In vitro	GSK4112 profiled as a Rev-erb agonist in cells to inhibit expression of the circadian target gene bmal1. In addition, GSK4112 repressed the expression of gluconeogenic genes in liver cells and reduced glucose output in primary hepatocytes. Therefore, GSK4112 is useful as a chemical tool to probe the function of Rev-erb in transcriptional repression, regulation of circadian biology, and metabolic pathways. Additionally, GSK4112 may serve as a starting point for design of Rev-erb chemical probes with in vivo pharmacological activity.

Solubility Information

Solubility	DMSO: 9.9 mg/mL (24.94 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (2.52 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5196 mL	12.5979 mL	25.1959 mL
5 mM	0.5039 mL	2.5196 mL	5.0392 mL
10 mM	0.252 mL	1.2598 mL	2.5196 mL
50 mM	0.0504 mL	0.252 mL	0.5039 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

Grant D, et al. GSK4112, a small molecule chemical probe for the cell biology of the nuclear heme receptor Rev-erb α . ACS Chem Biol. 2010 Oct 15;5(10):925-932.

Xu L, yi Zhou W, Xu T, et al. Rev-erb α Mediates Steatosis in Alcoholic Fatty Liver Through Regulating Autophagy. Cell & Bioscience. 2021 Jul 10;11(1):129. doi: 10.1186/s13578-021-00622-4.

Xu L, yi Zhou W, Xu T, et al. Rev-erb α Mediates Steatosis in Alcoholic Fatty Liver Through Regulating Autophagy[[]]. bioRxiv. 2021

Liu Q, Xu L, Wu M, et al. Rev-erb α exacerbates hepatic steatosis in alcoholic liver diseases through regulating autophagy. Cell & Bioscience. 2021, 11(1): 1-15.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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