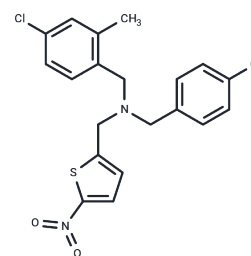


GSK2945

## Chemical Properties

CAS No. : 1438071-12-5  
 Formula: C<sub>20</sub>H<sub>18</sub>Cl<sub>2</sub>N<sub>2</sub>O<sub>2</sub>S  
 Molecular Weight: 421.34  
 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	GSK2945 is a highly specific Rev-erb $\alpha$ /REV-ERB $\alpha$ (mouse/human reverse erythroblastosis virus $\alpha$ ) antagonist (EC <sub>50</sub> s: 21.5 $\mu$ M and 20.8 $\mu$ M). It enhances cholesterol 7 $\alpha$ -hydroxylase (CYP7A1) level and cholesterol metabolism.
Targets(IC <sub>50</sub> )	Others,Cytochromes P450
In vitro	GSK2945 (20 $\mu$ M; 12 hours and 24 hours; mouse and human primary hepatocytes) treatment increases levels of Cyp7a1/CYP7A1 in mouse and human primary hepatocytes. GSK2945 (20 $\mu$ M) treatment also increases Lrh-1/LRH-1 (a known hepatic activator of Cyp7a1/CYP7A).GSK2945 dose-dependently enhances the transcriptional activity of Rev-erb $\alpha$ and a Bmal1 (a target gene of REV-ERBs) luciferase reporter (EC <sub>50</sub> of 2.05 $\mu$ M). 1) mRNA and protein.
In vivo	GSK2945 treatment increases hepatic mouse cholesterol 7 $\alpha$ -hydroxylase (Cyp7a1) level and lowers plasma cholesterol in wild-type mice.

## Solubility Information

Solubility	DMSO: 83.33 mg/mL (197.77 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: 3.3 mg/mL (7.83 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

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	1mg	5mg	10mg
1 mM	2.3734 mL	11.8669 mL	23.7338 mL
5 mM	0.4747 mL	2.3734 mL	4.7468 mL
10 mM	0.2373 mL	1.1867 mL	2.3734 mL
50 mM	0.0475 mL	0.2373 mL	0.4747 mL

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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

Zhang T, et al. REV-ERB $\alpha$  Regulates CYP7A1 Through Repression of Liver Receptor Homolog-1. Drug Metab Dispos. 2018 Mar;46(3):248-258.

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