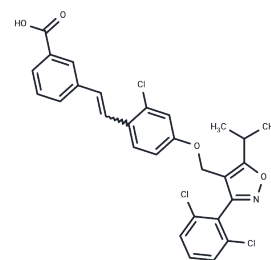


GW 4064

## Chemical Properties

CAS No. : 278779-30-9  
 Formula: C<sub>28</sub>H<sub>22</sub>Cl<sub>3</sub>N<sub>4</sub>O<sub>4</sub>  
 Molecular Weight: 542.84  
 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	GW 4064 is an effective farnesoid X receptor (FXR) agonist (EC <sub>50</sub> =65 nM).
Targets(IC <sub>50</sub> )	FXR, Autophagy
In vitro	In Fisher rats, oral administration of GW 4064 (ED <sub>50</sub> = 20 mg/kg) effectively reduces serum triglycerides.
In vivo	In CV-1 cells transfected with mouse FXR expression vectors (EC <sub>50</sub> =80 nM) and in CV-1 cells transfected with human FXR expression vectors (EC <sub>50</sub> =90 nM), GW 4064 functions as a selective non-steroidal FXR agonist, effectively exerting agonistic effects.
Cell Research	GW 4064 is dissolved in DMSO and stored, and then diluted with appropriate media before use[2]. Mouse liver cells (BNL CL.2) are maintained in a humidified incubator under 5% CO <sub>2</sub> at 37°C in Dulbecco's Modified Eagle's Medium (DMEM) supplemented with 10% fetal bovine serum (FBS) and 1% Penicillin/Streptomycin. When cells are divided into six-well plates and reach ~90% confluence, sub-confluent cells are washed three times with phosphate buffered saline (PBS) and replaced with serum-free DMEM supplemented with 1% fatty acid-free BSA. Oleic acid (final concentration 500 μM) and GW4064 at various concentrations are added and incubated for 24 h. Cells are then fixed with 4% formaldehyde for Oil Red O staining or harvested for protein and western blot analysis[2].

## Solubility Information

Solubility	DMSO: 50 mg/mL (92.11 mM), Sonication is recommended. Ethanol: 5.4 mg/mL (9.95 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: 2 mg/mL (3.68 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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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	1.8422 mL	9.2108 mL	18.4216 mL
5 mM	0.3684 mL	1.8422 mL	3.6843 mL
10 mM	0.1842 mL	0.9211 mL	1.8422 mL
50 mM	0.0368 mL	0.1842 mL	0.3684 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

Akwabi-Ameyaw A et al., Bioorg Med Chem Lett, 2008, 18(15), 4339-4343.

Yang D, Fan Y, Xiong M, et al. Loss of renal tubular G9a benefits acute kidney injury by lowering focal lipid accumulation via CES1. EMBO reports. 2023: e56128.

Maloney PR, et al., J Med Chem, 2000, 43(16), 2971-2974.

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