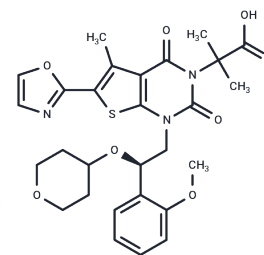


## Firsocostat

## Chemical Properties

CAS No. :	1434635-54-7
Formula:	C <sub>28</sub> H <sub>31</sub> N <sub>3</sub> O <sub>8</sub> S
Molecular Weight:	569.63
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	Firsocostat (GS-0976) is an inhibitor of acetyl-CoA carboxylase (ACC) dimerization that inhibits human ACC1 and ACC2 activity (IC <sub>50</sub> s of 2.1 and 6.1 nM, respectively)
Targets(IC <sub>50</sub> )	Acetyl-CoA Carboxylase
In vitro	Firsocostat inhibited hACC1 with an IC <sub>50</sub> of 2.1 ± 0.2 nM and hACC2 with an IC <sub>50</sub> of 6.1 ± 0.8 nM. Inhibition was reversible and highly specific for ACC, as evidenced by the absence of an effect of Firsocostat on the activity of 101 enzymes, receptors, growth factors, transporters, and ion channels of the Ricerca DrugMatrix Panel at 10 μM. In addition, because the ACC dimerization site is not conserved among the mammalian carboxylases, Firsocostat lacks the ability to inhibit any of these mechanistically related enzymes and therefore exhibits absolute specificity for ACC inhibition relative to other mammalian carboxylases.
In vivo	ND-630 reduces hepatic steatosis in a rat model of diet-induced obesity and in Zucker diabetic rats. It also improves insulin secretion stimulated by glucose and reduces hemoglobin A1c levels by 0.9% in Zucker diabetic rats.

## Solubility Information

Solubility	DMSO: 31.25 mg/mL (54.86 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
------------	---

### Preparing Stock Solutions

---

	1mg	5mg	10mg
1 mM	1.7555 mL	8.7776 mL	17.5553 mL
5 mM	0.3511 mL	1.7555 mL	3.5111 mL
10 mM	0.1756 mL	0.8778 mL	1.7555 mL
50 mM	0.0351 mL	0.1756 mL	0.3511 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

Harriman G , Greenwood J , Bhat S , et al. Acetyl-CoA carboxylase inhibition by ND-630 reduces hepatic steatosis, improves insulin sensitivity, and modulates dyslipidemia in rats[J]. Proceedings of the National Academy of Sciences, 2016:201520686.

Li M, Yang J, Ye C, et al. Integrated Metabolomics and Transcriptomics Analyses Reveal Metabolic Landscape in Neuronal Cells during JEV Infection. Virologica Sinica. 2021: 1-12.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481