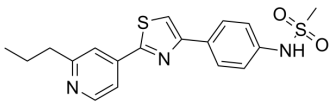
FGH10019

Cat. No.:	HY-16207
CAS No.:	1046045-61-7
Molecular Formula:	$C_{18}H_{19}N_3O_2S_2$
Molecular Weight:	373.49
Target:	Fatty Acid Synthase (FASN)
Pathway:	Metabolic Enzyme/Protease
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 38 mg/mL (101.74 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.6774 mL	13.3872 mL	26.7745 mL
5 mM	0.5355 mL	2.6774 mL	5.3549 mL
10 mM	0.2677 mL	1.3387 mL	2.6774 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

FGH10019 is a novel sterol regulatory element-binding protein (SREBP) inhibitor with IC_{50} of 1 μM.

IC_{50} & Target

IC50: 1 μM (SREBP)

In Vitro

Treatment of the CHO-K1 cells with analog FGH10019 decreases the percentage of the mature form of SREBP-2 (68 kDa) at lower concentrations than treatment with fatostatin. Densitometric analysis of the gels indicates that the IC_{50} of analog FGH10019 is approximately 1 μM, which is 5-10 times lower than the IC_{50} of fatostatin (appr 10 μM)[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

FGH10019-treated chow is fed at a dose rate calculated to provide about 0.7 mg analog FGH10019 per day, at about 23 mg/kg body weight, to 5-wk-old male ob/ob mice weighing an average of appr 30 g. After 8 wk on the analog 24-treated chow, the mice gain 8-9 % less weight than control mice[1].

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PROTOCOL

Animal Administration [1]	Five-week-old homozygous male obese (ob/ob) mice (C57BL/6J) are housed five per cage, and had ad libitum access to normal chow and water for 1 wk after their arrival. On day 1 of the experiment, the animals (10 per group) are fed normal chow (control diet) or chow that contains 200 mg/kg of analogue 24. These doses are estimated to provide approximately 0.7 mg analogue 24 per day (appr 23 mg/kg body weight per day). Daily food intake and body weight are carefully monitored and recorded between 3:00 and 5:00 p.m. Serum constituents, and TG levels in livers are determined. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Sci Rep. 2017 May 23;7(1):2303.

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REFERENCES

[1]. Kamisuki S, et al. Synthesis and evaluation of diarylthiazole derivatives that inhibit activation of sterol regulatory element-binding proteins. J Med Chem. 2011 Jul 14;54(13):4923-7.

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