Data Sheet (Cat.No.T6832)

TargetMol

Fatostatin hydrobromide

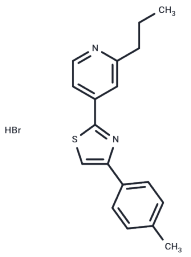
Chemical Properties

CAS No. : 298197-04-3

Formula: C18H18N2S·HBr

Molecular Weight: 375.33

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	Fatostatin hydrobromide (Fatostatin A HBr) ia an inhibitor of sterol regulatory element binding protein (SREBP). It impairs the activation of SREBP-1 and SREBP-2.
Targets(IC50)	NPC1L1,Fatty Acid Synthase
In vitro	Fatostatin inhibits the insulin-induced adipogenesis of 3T3-L1 cells and the serum-independent growth of human androgen-independent prostate cancer (DU145) cells. Fatostatin suppresses cell proliferation and anchorage-independent colony formation in both androgen-responsive LNCaP and androgen-insensitive C4-2B prostate cancer cells. Fatostatin blocks the activation of SREBPs in cells in tissue culture.Fatostatin also reduced in vitro invasion and migration in both cell lines. Further, fatostatin causes G2/M cell cycle arrest and induces apoptosis by increasing caspase-3/7 activity and the cleavages of caspase-3 and PARP.
In vivo	Fatostatin significantly inhibits subcutaneous C4-2B tumor growth and markedly decreases serum PSA level compared to the control group. Fatostatin blocks increases in body weight, blood glucose, and hepatic fat accumulation in obese ob/ob mice, even under uncontrolled food intake.
Cell Research	Cell lines: CHO-K1 cells. Concentrations: 20 μM. Incubation Time: 20 h. Method: On day 0,CHO-K1 cells are plated out onto a 96-well plate in medium A.On day 2,the cells are transiently cotransfected with pCMV-PLAP-BP2(513-1141),pCMV-SCAP,and pAc-β-gal, using Lipofectamine reagent.After incubation for 5 hr,the cells are washed with PBS and then incubated in medium B,in the absence or presence of fatostatin (20 μM) or sterols (10 μg/mL cholesterol and 1 μg/mL 25-hydroxycholesterol).After 20 hr of incubation,an aliquot of the medium is assayed for secreted alkaline phosphatase activity.The cells in each well are lysed and used for measurement of β-galactosidase activities.The alkaline phosphatase activity is normalized by the activity of β-galactosidase.
Animal Research	Animal Models: Obese (ob/ob) mice (C57BL/6J background). Formulation: 10% DMSO in PBS. Dosages: 30 mg/kg. Administration: intraperitoneal injection

Solubility Information

Solubility	DMSO: 17.86 mg/mL (47.58 mM),Sonication is recommended. Ethanol: 58 mg/mL (154.53 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), (< 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 (2.66 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6643 mL	13.3216 mL	26.6432 mL
5 mM	0.5329 mL	2.6643 mL	5.3286 mL
10 mM	0.2664 mL	1.3322 mL	2.6643 mL
50 mM	0.0533 mL	0.2664 mL	0.5329 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

Kamisuki S, et al. Chem Biol. 2009, 16(8):882-92.
Zhang Z, He J, Zhao Y, et al. Asiatic acid prevents renal fibrosis in UUO rats via promoting the production of 15d-PGJ2, an endogenous ligand of PPAR-γ. Acta Pharmacologica Sinica. 2020, 41(3): 373-382
Li X, et al. Mol Cancer Ther. 2014, 13(4):855-66.
Zhang Z, He J, Zhao Y, et al. Asiatic acid prevents renal fibrosis in UUO rats via promoting the production of 15d-PGJ2, an endogenous ligand of PPAR-γ[J]. Acta Pharmacologica Sinica. 2020, 41(3): 373-382.