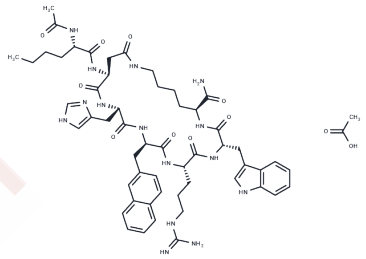
Data Sheet (Cat.No.T16879L)

TargetMol

SHU 9119 acetate

Chemical Properties



CAS No. :

Formula: C56H75N15O11

Molecular Weight: 1134.29

Storage: Keep away from moisture
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	SHU 9119 acetate is a well-known antagonist of human melanocortin 3 and 4 (hMC3R, hMC4R) receptors and a partial hMC5R agonist. The IC50 values of human MC3R, MC4R and MC5R is 0.23, 0.06, and 0.09 nM respectively.
Targets(IC50)	Melanocortin Receptor
In vivo	Compared with control, blocking CNS-Mcr by chronic intracerebroventricular infusion of SHU9119 (24 nmol/d for 7 days) increases food intake in ad libitum-fed rats. Weight gain of SHU9119 treated rats is significantly higher than control. SHU9119 treatment effectively increases metabolic efficiency. SHU9119 markedly increases mRNA levels of genes promoting lipogenesis and TAG storage in adipocytes, including stearoyl-CoA desaturase-1, lipoprotein lipase, acetyl-CoA carboxylase α, and fatty acid synthase. SHU9119 increases food intake (+30%) and body fat (+50%) and decreases EE by reduction in fat oxidation (?42%). Furthermore, SHU9119 impairs the uptake of VLDL-TG by BAT. In line with this, SHU9119 decreases uncoupling protein-1 levels in BAT (?60%) and induces large intracellular lipid droplets, indicative of severely disturbed BAT activity.

Solubility Information

Solubility	DMSO: 55 mg/mL (48.49 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.8816 mL	4.408 mL	8.8161 mL
5 mM	0.1763 mL	0.8816 mL	1.7632 mL
10 mM	0.0882 mL	0.4408 mL	0.8816 mL
50 mM	0.0176 mL	0.0882 mL	0.1763 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

Grieco P, et al. Further structure-activity studies of lactam derivatives of MT-II and SHU-9119: their activity and selectivity at human melanocortin receptors 3, 4, and Peptides. 2007 Jun;28(6):1191-6.
Nogueiras R, et al. The central melanocortin system directly controls peripheral lipid metabolism. J Clin Invest. 2007 Nov;117(11):3475-88.
Kooijman S, et al. Inhibition of the central melanocortin system decreases brown adipose tissue activity. J Lipid Res. 2014 Oct;55(10):2022-32.

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