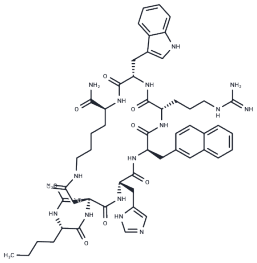
Data Sheet (Cat.No.T16879)

TargetMol

SHU 9119

Chemical Properties



CAS No. : 168482-23-3

Formula: C54H71N15O9

Molecular Weight: 1074.258

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 is an effective human melanocortin 3 and 4 receptors (MC3/4R) antagonist and a partial MC5R agonist (IC50: 0.23, 0.06, and 0.09 nM for human MC3R, MC4R and MC5R, respectively).
Targets(IC50)	Others,Melanocortin Receptor
In vivo	SHU9119 treatment significantly enhances metabolic efficiency by increasing mRNA levels of genes involved in lipogenesis and TAG storage in adipocytes, including stearoyl-CoA desaturase-1, lipoprotein lipase, acetyl-CoA carboxylase α, and fatty acid synthase. Chronic intracerebroventricular infusion of SHU9119 (24 nmol/d for 7 days) in ad libitum-fed rats increases food intake and weight gain compared to control. SHU9119 results in a 30% increase in food intake, a 50% increase in body fat, and a 42% reduction in energy expenditure due to decreased fat oxidation. It hampers VLDL-TG uptake and reduces uncoupling protein-1 levels in BAT by 60%, causing large intracellular lipid droplets and severely disturbed BAT activity [2][3].

Solubility Information

Solubility	H2O: 20 mg/mL (18.62 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.9309 mL	4.6544 mL	9.3087 mL
5 mM	0.1862 mL	0.9309 mL	1.8617 mL
10 mM	0.0931 mL	0.4654 mL	0.9309 mL
50 mM	0.0186 mL	0.0931 mL	0.1862 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 5. 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.