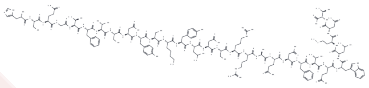
Data Sheet (Cat.No.T15389)

TargetMol

Glucagon (1-29), bovine, human, porcine

Chemical Properties



CAS No. : 16941-32-5

Formula: C153H225N43O49S

Molecular Weight: 3482.75

Storage: Keep away from moisture,Keep away from direct sunlight,Store at low temperature
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	Glucagon (1-29), bovine, human, porcine is a hormone produced by pancreatic α-cells with glucagon activity, which promotes glycogenolysis and gluconeogenesis, and is used in the study of obesity and diabetes.
Targets(IC50)	Glucagon Receptor
In vitro	Glucagon (1-29), bovine, human, porcine binds to its receptor Gcgr and activates the cAMP-PKA signaling pathway, which in turn promotes hepatic gluconeogenesis and triggers hyperglycemia. In addition, Glucagon (1-29), bovine, human, porcine stimulates hepatic production of kisspeptin1 and gluconeogenesis. [1] Glucagon (1-29), bovine, human, porcine inhibits the expression of CYP7A1 mRNA in human primary hepatocytes at a concentration of 100 nM and increases the phosphorylation of HNF4α. increased the phosphorylation level of HNF4α. [3]
In vivo	A low dose of 20 μg/kg Glucagon (1-29), bovine, human, porcine increased blood glucose but did not stimulate insulin secretion in mice fed in a normal environment. A high dose of 1 mg/kg Glucagon (1-29), bovine, human, porcine lowered blood glucose and stimulated insulin secretion in mice fed in a normal environment compared to the PBS control. [4]

Solubility Information

Solubility	DMSO: 1 mg/mL (0.29 mM),Sonication is recommended. H2O: 4 mg/mL (1.15 mM),when pH is adjusted to 2 with HCl. Sonication is recommmended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.2871 mL	1.4356 mL	2.8713 mL
5 mM	0.0574 mL	0.2871 mL	0.5743 mL
10 mM	0.0287 mL	0.1436 mL	0.2871 mL
50 mM	0.0057 mL	0.0287 mL	0.0574 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

Song WJ, et al. Glucagon regulates hepatic kisspeptin to impair insulin secretion. Cell Metab. 2014 Apr 1;19(4):667-81.

Hirota K, et al. Hepatocyte nuclear factor-4 is a novel downstream target of insulin via FKHR as a signal-regulated transcriptional inhibitor. J Biol Chem. 2003 Apr 11;278(15):13056-60.

Song KH, et al. Glucagon and cAMP inhibit cholesterol 7alpha-hydroxylase (CYP7A1) gene expression in human hepatocytes: discordant regulation of bile acid synthesis and gluconeogenesis. Hepatology. 2006 Jan;43(1):117-25.

Capozzi ME, et al. Glucagon lowers glycemia when β-cells are active. JCI Insight. 2019 Jul 23;5(16):e129954.

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