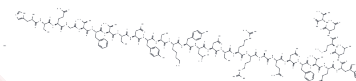


Glucagon (1-29), bovine, human, porcine hydrochloride

Chemical Properties

CAS No. :	28270-04-4
Formula:	C153H225N43O49S.ClH
Molecular Weight:	3519.21
Storage:	Store at low temperature,Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Glucagon (1-29), bovine, human, porcine hydrochloride (Porcine glucagon hydrochloride) is a peptide hormone produced by pancreatic α -cells that activates HNF4 α , increases HNF4 α phosphorylation, and stimulates gluconeogenesis.
Targets(IC50)	Glucocorticoid Receptor,Glucagon Receptor
In vitro	Glucagon stimulates both hepatic kisspeptin1 production and gluconeogenesis. Upon binding to its receptor Gcgr, Glucagon activates cAMP-PKA signaling to stimulate hepatic glucose production (HGP) and cause hyperglycemia. Glucagon (100 nM) increases the phosphorylation of HNF4 α . Glucagon (100 nM) represses CYP7A1 mRNA expression in human primary hepatocytes [3].
In vivo	Glucagon (20 μ g/kg) increases glycemia and does not stimulate insulin secretion in ambient-fed mice. High-dose (1 mg/kg) Glucagon lowers glycemia compared with PBS control and stimulates insulin secretion in ambient-fed mice [4].

Solubility Information

Solubility	DMSO: 250 mg/mL (71.04 mM),Sonication is recommended. H2O: 40 mg/mL (11.37 mM),when pH is adjusted with HCl, sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.2842 mL	1.4208 mL	2.8415 mL
5 mM	0.0568 mL	0.2842 mL	0.5683 mL
10 mM	0.0284 mL	0.1421 mL	0.2842 mL
50 mM	0.0057 mL	0.0284 mL	0.0568 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 7 α -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. pii: 129954.

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