

## Neuronostatin-13 human

**Chemical Properties**

CAS No.:	1096485-24-3
Formula:	C <sub>64</sub> H <sub>110</sub> N <sub>20</sub> O <sub>16</sub>
Molecular Weight:	1415.68
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

**Biological Description**

Description	Neuronostatin-13 (Human) is a 13 amino acid residue peptide with carboxyl-terminal amidation, the primary structure is conserved in human chimpanzee and some other mammals.
In vitro	Neuronostatin-13 human is a 13-amino acid peptide hormone encoded by the somatostatin gene and plays an important role in the regulation of hormol and cardiac function. Treatment with Neuronostatin-13 human (1,000 nM) enhances low-glucose-induced glucagon release compare with islets treated with control medium alone. Treatment with Neuronostatin-13 human for 1 h leads to a significant increase in the accumulation of glucagon mR compare with vehicle-treated control cells. In $\alpha$ TC1-9 $\alpha$ -cells, treatment with 100 nM Neuronostatin-13 human leads to an increase in phosphorylated PKA at 30 and 40 min[1].
In vivo	Infusion with Neuronostatin-13 human delays glucose clearance in the rat model, such that blood glucose levels in Neuronostatin-13 human-treated animals are significantly higher at 1 and 10 min following intra-arterial injection of a glucose bolus[1]. Chocardiographic measurement reveals a remarkable drop in heart rate after 3-, 6- and 12-hr of Neuronostatin-13 human challenge. In addition, Neuronostatin-13 human treatment significantly decreases left ventricular end-systolic diameter (LVESD) and fractiol shortening without affecting left ventricular end-diastolic diameter (LVEDD) between 6 and 12 hrs following Neuronostatin-13 human challenge, the effect of which returns to basal level 18-hr after Neuronostatin-13 human treatment[2].

**Solubility Information**

Solubility	H <sub>2</sub> O: Soluble ( < 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.706 mL	3.532 mL	7.064 mL
5 mM	0.141 mL	0.706 mL	1.413 mL
10 mM	0.071 mL	0.353 mL	0.706 mL
50 mM	0.014 mL	0.071 mL	0.141 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

## Reference

1. Salvatori AS, et al. Neuronostatin inhibits glucose-stimulated insulin secretion via direct action on the pancreatic  $\alpha$ -cell. *Am J Physiol Endocrinol Metab.* 2014 Jun 1;306(11):E1257-63.
2. Zhu X, et al. Neuronostatin attenuates myocardial contractile function through inhibition of sarcoplasmic reticulum Ca<sup>2+</sup>-ATPase in murine heart. *Cell Physiol Biochem.* 2014;33(6):1921-32.

## Inhibitors · Natural Compounds · Compound Libraries

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