

## Pancreatic Polypeptide, bovine

## Chemical Properties

CAS No.:	179986-89-1
Formula:	C186H287N53O56S2
Molecular Weight:	4225.78
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

## Biological Description

Description	Agonist at Y4 neuropeptide Y receptors.
In vitro	Pancreatic Polypeptide, bovine is an agonist of NPY receptor, with high affinity at NPYR4. Pancreatic Polypeptide (1 µM) does not alter proliferation in BRIN BD11 or 1.1B4 beta-cells, but reverses the decreased cell viability in BRIN BD11 cells induced by streptozotocin. Pancreatic Polypeptide (0.1 nM-1 µM) shows no effect on insulin secretion from isolated mouse islets, and does not affect the membrane potential and (Ca <sup>2+</sup> ) <sub>i</sub> levels in BRIN BD11 cells at 1 µM[1]. Pancreatic Polypeptide, bovine inhibits secretin- and cholecystokinin-stimulated pancreatic secretion. 125I-Pancreatic Polypeptide, bovine shows no specific binding to pancreatic acini[2].
In vivo	Pancreatic Polypeptide (25 nmol/kg bw, i.p.) reduces glucose-stimulated insulin concentrations but shows no effect on acute feeding behaviour in overnight fasted mice[1]. Pancreatic Polypeptide, bovine (BPP; 40 µg/kg) inhibits CCK-33-induced pancreatic protein output during the entire bovine Pancreatic Polypeptide infusion period, but shows no effect on biliary protein output during CCK-33 or CCK-8 infusion[2].

## Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.237 mL	1.183 mL	2.366 mL
5 mM	0.047 mL	0.237 mL	0.473 mL
10 mM	0.024 mL	0.118 mL	0.237 mL
50 mM	0.005 mL	0.024 mL	0.047 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. Khan D, et al. Influence of neuropeptide Y and pancreatic polypeptide on islet function and beta-cell survival. *Biochim Biophys Acta*. 2017 Apr;1861(4):749-758.

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