

Pancreatic Polypeptide, rat acetate

Chemical Properties

CAS No. :

Formula:

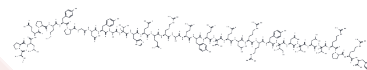
Molecular Weight:

Keep away from moisture

Storage:

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	Pancreatic Polypeptide, rat acetate is a natural product and an NPY receptor agonist with high affinity for NPYR4 and receptor selectivity, commonly used in experimental models studying energy balance, feeding behavior, and related metabolic diseases.
Targets(IC50)	Neuropeptide Y Receptor
In vitro	<p>Methods: In BRIN BD11 or 1.1B4 β cells, Pancreatic Polypeptide, rat acetate (1 μM) was used to assess cell proliferation; in streptozotocin-induced BRIN BD11 cells, Pancreatic Polypeptide, rat acetate (1 μM) was used to assess cell viability; in isolated mouse islets, Pancreatic Polypeptide, rat acetate (0.1 nM–1 μM) was used to assess insulin secretion; in BRIN BD11 cells, Pancreatic Polypeptide, rat acetate (1 μM) was used to assess membrane potential and intracellular calcium levels.</p> <p>Results: Pancreatic Polypeptide, rat acetate did not alter proliferation in normal β cells but reversed streptozotocin-induced decreases in cell viability; had no effect on insulin secretion from isolated mouse islets; and did not affect membrane potential or intracellular calcium levels in BRIN BD11 cells.[1]</p>
In vivo	<p>Methods: Pancreatic polypeptide (25 nmol/kg bw, intraperitoneal injection) was administered to overnight-fasted mice to assess glucose-stimulated insulin concentrations and acute feeding behavior.</p> <p>Results: Pancreatic polypeptide reduced glucose-stimulated insulin concentrations but had no effect on acute feeding behavior. [1]</p>

Solubility Information

Solubility	DMSO: 252.5 mg/mL, Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Reference

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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