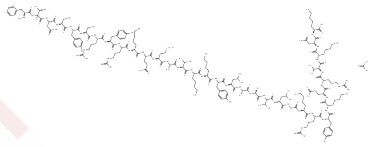
Data Sheet (Cat.No.TP1722L)

TargetMol

PACAP (6-38), human, ovine, rat acetate

Chemical Properties



CAS No. :

Formula: C184H303N55O48S

Molecular Weight: 4085.84

Storage: Store at low temperature,Keep away from moisture
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	PACAP (6-38), human, ovine, rat acetate is a potent PACAP receptor antagonist with IC50s of 30, 600, and 40 nM for PACAP type I receptor, PACAP type II receptor VIP1, and PACAP type II receptor VIP2, respectively.
Targets(IC50)	PACAP
In vitro	An increase of dopamine (DA) content by HPLC analysis and/or cell proliferation identified by MTT assay by Dexamethasone (DEX) is also observed which can be inhibited by PACAP (6-38) at concentration sufficient to block PACAP type 1 (PAC1) receptor. Pretreatment with PACAP (6-38) at 0.1 or 1 μM for 2 h significantly blocks this increase of DA content by 1 μM DEX. The MTT assay shows that DEX increases cell proliferation. Moreover, this action is also inhibited by the pre-incubation of PACAP (6-38). PACAP (6-38) at 1μM shows no effect on DA content and cell proliferation for 24 h. However, PACAP (6-38) at 0.3 μM has been mentioned to reduce the spontaneous tyrosine hydroxylase (TH) accumulation in differentiated retinal cultured cells for 5 days [2].
In vivo	Intravesical administration of PACAP (6-38) (300 nM) significantly (p≤0.01) increases intercontraction interval (2.0-fold) and void volume (2.5-fold) in NGF-OE mice. Intravesical instillation of PACAP (6-38) also decreases baseline bladder pressure in NGF-OE mice. Intravesical administration of PACAP (6-38) (300 nM) significantly (p≤0.01) reduces pelvic sensitivity in NGF-OE mice but is without effect in WT mice[3].

Solubility Information

Solubility	H2O: 50 mg/mL (12.24 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.2447 mL	1.2237 mL	2.4475 mL
5 mM	0.0489 mL	0.2447 mL	0.4895 mL
10 mM	0.0245 mL	0.1224 mL	0.2447 mL
50 mM	0.0049 mL	0.0245 mL	0.0489 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

Gourlet P, et al. Fragments of pituitary adenylate cyclase activating polypeptide discriminate between type I and II recombinant receptors. Eur J Pharmacol. 1995 Dec 4;287(1):7-11.
Yang TT, et al. Changes of dopamine content and cell proliferation by dexamethsone via pituitary adenylate cyclase-activating polypeptide in PC12 cell. Neurosci Lett. 2007 Oct 9;426(1):45-8.
Girard BM, et al. Intravesical PAC1 Receptor Antagonist, PACAP(6-38), Reduces Urinary Bladder Frequency and Pelvic Sensitivity in NGF-OE Mice. J Mol Neurosci. 2016 Jun;59(2):290-9.