ALPHA DIAGNOSTIC INTERNATIONAL

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Product Data Sheet

Cat# **SP-69627-1**
Description: VIP, human, porcine, rat; VIP (28 amino acids) (AA: His-Ser-Asp-Ala-Val-Phe-Thr-Asp-Asn-Tyr-Thr-Arg-Leu-Arg-Lys-Gln-Met-Ala-Val-Lys-Lys-Tyr-Leu-Asn-Ser-Ile-Leu-Asn-NH2) (MW: 3225.7)
Size: 1 mg
Purity: >95%
Store: Desiccated at -20oC.

Vasoactive intestinal peptide (VIP, also polypeptide) is a peptide hormone containing 28 amino acid residues and is produced in many areas of the human body including the gut, pancreas and suprachiasmatic nuclei of the hypothalamus in the brain. It belongs to the glucagons family. VIP has a half-life in the blood of about two minutes. VIP causes vasodilation, lowers arterial blood pressure, stimulates myocardial contractility, increases glycogenolysis and relaxes the smooth muscle of trachea, stomach and gall bladder.

There are two known receptors for the vasoactive intestinal peptide (VIP) termed VPAC1 and VPAC2. These receptors bind both VIP and pituitary adenylate cyclase-activating polypeptide (PACAP) to some degree. Both receptors are members of the 7 transmembrane G protein-coupled receptor family. VPAC1 is distributed widely in the CNS, liver, lung, intestine and T-lymphocytes. VPAC2 is found in the CNS, pancreas, skeletal muscle, heart, kidney, adipose tissue, testis, and stomach.

In humans, the vasoactive intestinal peptide is encoded by the VIP gene that encodes a 170-aa precursor protein that is further processed into 3 active peptides:

1. Intestinal peptide PHV-42 (42-aa, 81-122 aa)
2. Intestinal peptide PHM-27 (Peptide histidine methioninamide 27; 27 aa, 81-107 aa)
3. Vasoactive intestinal peptide (VIP, 28-aa, 125-152 aa).

VIP Precursor Peptide, Human (protein accession #P01282), 170aa

MDTRNKAQLL VLLTLLSVLF SQTSAWPLYR APSALRLGDR IPFEGANEPD QVSLKEDIDM
LQNALAENDT PYYDVSRNAR HADGVFTSDF SKLLGQLSAK KYLESLMGKR VSSNISEDPV
PVKR**HSDAVF** TDNYTRLRKQ MAVKKYLNSI **LN**GKRSSEGE SPDFPEELEK

underlined sequence is mature VIP sequence

Refs: Fahrenkrug J, (1982). Br. Med. Bull. 38: 265–70; Said SI (1986). J. Endocrinol. Invest. 9: 191–200; Linder S, (1987) PNAS 84, 605–9

All peptides are for in vitro research use only.

Please consult "Frequently asked questions" section at our website for Guidance on storage and solubility of the peptides.
http://www.4adi.com/commerce/info/showpage.jsp?page_id=1088&category_id=2427

Related Items

SP-101333-1	VIP-Lys(Biotin), human, porcine, rat
SP-55232-1	VIP, guinea pig
SP-69627-1	VIP, human, porcine, rat; VIP (28 amino acids)
SP-86627-5	VIP (1 - 12), human, porcine, rat
SP-87444-5	VIP Receptor-Binding Inhibitor L-8-K
SP-89590-1	VIP (6-28) (human, bovine, porcine, rat)
SP-89591-1	VIP (10-28) (human, bovine, porcine, rat)
(SP-89594-1	VIP, Antagonist

SP-69627-1 101124A

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