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Produktinformation

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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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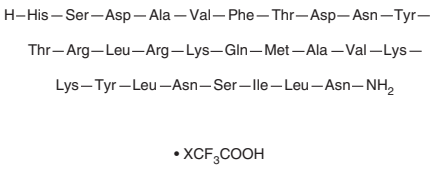
PRODUCT INFORMATION

VIP (human, porcine, rat, ovine) (trifluoroacetate salt)

Item No. 24996

Synonym:	Vasoactive Intestinal Peptide
MF:	$C_{147}H_{238}N_{44}O_{42}S \bullet XCF_3COOH$
FW:	3,325.8
Purity:	≥95%
Supplied as:	A lyophilized powder
Storage:	-20°C
Stability:	≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

VIP (human, porcine, rat, ovine) (trifluoroacetate salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the VIP (human, porcine, rat, ovine) (trifluoroacetate salt) in the solvent of choice. VIP (human, porcine, rat, ovine) (trifluoroacetate salt) is soluble in the organic solvent formic acid, which should be purged with an inert gas. The solubility of VIP (human, porcine, rat, ovine) (trifluoroacetate salt) in formic acid is approximately 1 mg/ml.

Description

Vasoactive intestinal peptide (VIP) is a 28-amino acid peptide that has roles as a hormone and neurotransmitter and has diverse biological activities, including roles in vasodilation, inflammation, and metabolism, as well as regulation of the circadian rhythm.[1] It is an agonist of vasoactive intestinal polypeptide receptor 1 ($VPAC_1$) and $VPAC_2$, inducing adenylate cyclase activity with EC_{50} values of 3 and 8 nM, respectively, in CHO cell membranes expressing the recombinant human receptors, and is selective for these receptors over proteasome assembly chaperone 1 (PAC_1; K_i = 500-1,000 nM in radioligand binding assays).[2,3] VIP (10-300 nM) induces relaxation of isolated human fundus or antrum circular smooth muscle strips precontracted with carbachol (carbamoylcholine; Item No. 14486).[4] It reduces increases in gastric acid secretion and mucosal blood flow induced by the CCK_2 receptor agonist pentagastrin (Item No. 28546) in conscious dogs when administered intravenously at a dose of 8 µg/kg.[5] VIP (5-10 nmol/animal, i.p.) decreases serum and peritoneal lavage levels of TNF-α and IL-6 and reduces mortality in a mouse model of LPS-induced endotoxemia.[6] It inhibits replication of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in Calu-3 human lung epithelial cells and isolated human peripheral blood monocytes.[7] It also inhibits production of IL-6, IL-8, and TNF-α in SARS-CoV-2-infected Calcu-3 cells.

References

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