



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

# PRODUCT INFORMATION



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

Item No. 24996

<b>Synonym:</b>	Vasoactive Intestinal Peptide	H-His—Ser—Asp—Ala—Val—Phe—Thr—Asp—Asn—Tyr—
<b>MF:</b>	$C_{147}H_{238}N_{44}O_{42}S \cdot XCF_3COOH$	Thr—Arg—Leu—Arg—Lys—Gln—Met—Ala—Val—Lys—
<b>FW:</b>	3,325.8	Lys—Tyr—Leu—Asn—Ser—Ile—Leu—Asn—NH <sub>2</sub>
<b>Purity:</b>	≥95%	
<b>Supplied as:</b>	A lyophilized powder	
<b>Storage:</b>	-20°C	• XCF <sub>3</sub> COOH
<b>Stability:</b>	≥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.<sup>1</sup> It is an agonist of vasoactive intestinal polypeptide receptor 1 (VPAC<sub>1</sub>) and VPAC<sub>2</sub>, inducing adenylate cyclase activity with EC<sub>50</sub> 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<sub>1</sub>; K<sub>i</sub> = 500-1,000 nM in radioligand binding assays).<sup>2,3</sup> VIP (10-300 nM) induces relaxation of isolated human fundus or antrum circular smooth muscle strips precontracted with carbachol (carbamoylcholine; Item No. 14486).<sup>4</sup> It reduces increases in gastric acid secretion and mucosal blood flow induced by the CCK<sub>2</sub> receptor agonist pentagastrin (Item No. 28546) in conscious dogs when administered intravenously at a dose of 8 µg/kg.<sup>5</sup> 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.<sup>6</sup> 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.<sup>7</sup> It also inhibits production of IL-6, IL-8, and TNF-α in SARS-CoV-2-infected Calcu-3 cells.

### References

1. Iwasaki, M., Akiba, Y., and Kaunitz, J.D. *F1000Res.* **8**, 1629 (2019).
2. Van Rampelbergh, J., Juarranz, M.-G., Perret, J., et al. *Br. J. Pharmacol.* **130(4)**, 819-826 (2000).
3. Harmar, A.J., Fahrenkrug, J., Gozes, I., et al. *Br. J. Pharmacol.* **166(1)**, 4-17 (2012).
4. Severi, C., Tattoli, I., Corleto, V.D., et al. *Neurogastroenterol. Motil.* **18(11)**, 1009-1018 (2006).
5. Konturek, S.J., Dembiński, A., Thor, P., et al. *Pflügers Arch.* **361(2)**, 175-181 (1976).
6. Delgado, M., Gomariz, R.P., Martinez, C., et al. *Eur. J. Immunol.* **30(11)**, 3236-3246 (2000).
7. Temerozo, J.R., Sacramento, C.Q., Fintelman-Rodrigues, N., et al. *bioRxiv Preprint* (2020).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 09/18/2020

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM