

PRODUCT INFORMATION



VIRIP (trifluoroacetate salt)

Item No. 38837

Formal Name: L-leucyl-L- α -glutamyl-L-alanyl-L-isoleucyl-L-prolyl-L-methionyl-L-seryl-L-isoleucyl-L-prolyl-L-prolyl-L- α -glutamyl-L-valyl-L-lysyl-L-phenylalanyl-L-asparaginy-L-lysyl-L-prolyl-L-phenylalanyl-L-valyl-L-phenylalanine, trifluoroacetate salt

Synonyms: α 1-Antitrypsin (377-396) (human),
Virus-Inhibitory Peptide

Peptide Sequence: LEAIPMSIPPEVKFNKPFVF-OH

MF: $C_{112}H_{171}N_{23}O_{27}S \cdot XCF_3COOH$

FW: 2,303.8

Purity: $\geq 95\%$

Supplied as: A solid

Storage: $-20^{\circ}C$

Stability: ≥ 4 years

H—Leu—Glu—Ala—Ile—Pro—Met—Ser—Ile—Pro—Pro—

Glu—Val—Lys—Phe—Asn—Lys—Pro—Phe—Val—Phe—OH

• XCF_3COOH

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

Laboratory Procedures

VIRIP (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the VIRIP (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. VIRIP (trifluoroacetate salt) is sparingly soluble (1-10 mg/ml) in 20% acetonitrile/water.

Description

VIRIP is an HIV entry inhibitor ($IC_{50} = 26 \mu M$) and a peptide fragment of the serine protease inhibitor alpha-1 antitrypsin.^{1,2} It is produced by C-terminal cleavage of alpha-1 antitrypsin by matrix metalloproteinase-7 (MMP-7).² VIRIP (100 μM) inhibits HIV-1 replication in isolated human peripheral blood mononuclear cells (PBMCs) and transmission by monocyte-derived dendritic cells to primary T cells.¹ Plasma levels of VIRIP are increased in patients with HIV infection.²

References

1. Münch, J., Ständker, L., Adermann, K., *et al.* Discovery and optimization of a natural HIV-1 entry inhibitor targeting the gp41 fusion peptide. *Cell* **129**(2), 263-275 (2007).
2. Kramer, H.B., Lavender, K.J., Qin, L., *et al.* Elevation of intact and proteolytic fragments of acute phase proteins constitutes the earliest systemic antiviral response in HIV-1 infection. *PLoS Pathog.* **6**(5), (2010).

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.

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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