

PRODUCT INFORMATION



EPI-X4 (trifluoroacetate salt)

Item No. 37912

Formal Name: L-leucyl-L-valyl-L-arginyl-L-tyrosyl-L-threonyl-L-lysyl-L-lysyl-L-valyl-L-prolyl-L-glutamyl-L-valyl-L-seryl-L-threonyl-L-prolyl-L-threonyl-L-leucine, trifluoroacetate salt

Synonym: Endogenous Peptide Inhibitor of CXCR4

Peptide Sequence: LVRYTKKVPQVSTPTL-OH

MF: $C_{84}H_{144}N_{22}O_{23} \cdot XCF_3COOH$

FW: 1,830.2

Purity: $\geq 98\%$

Supplied as: A solid

Storage: $-20^\circ C$

Stability: ≥ 4 years

H—Leu—Val—Arg—Tyr—Thr—Lys—Lys—Val—Pro—Gln—
Val—Ser—Thr—Pro—Thr—Leu—OH
• XCF₃COOH

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

Laboratory Procedures

EPI-X4 (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the EPI-X4 (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. EPI-X4 (trifluoroacetate salt) is soluble in ethanol and methanol.

Description

EPI-X4 is an endogenous peptide fragment corresponding to amino acids 408-423 of human serum albumin and an antagonist of chemokine (C-X-C motif) receptor 4 (CXCR4).¹ It inhibits calcium mobilization and receptor internalization induced by chemokine (C-X-C motif) ligand 12 (CXCL12) in HEK293 cells expressing CXCR4 when used at concentrations ranging from 0.8 to 1,000 μM . EPI-X4 inhibits CXCL12-induced migration of Jurkat T cells and human CD34⁺ hematopoietic stem cells. *In vivo*, EPI-X4 (16 $\mu mol/kg$) reduces Cxcr4-dependent inflammatory cell airway infiltration in a mouse model of acute allergic airway hyper eosinophilia. Urinary levels of EPI-X4 are increased and inversely correlated with glomerular filtration rate (GFR) in patients with chronic kidney disease.

Reference

1. Zirafi, O., Kim, K.A., Ständker, L., *et al.* Discovery and characterization of an endogenous CXCR4 antagonist. *Cell Rep.* **11(5)**, 737-747 (2015).

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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