

PRODUCT INFORMATION



TRPV1-Tat (trifluoroacetate salt)

Item No. 36955

Formal Name: (S)-N1-((6S,9S,12S,15S,18S,24S,27S,30S,33S,36R,39S,42S,45S,49S,53S,56S)-39-((1H-indol-3-yl)methyl)-1,60-diamino-12,15-bis(4-aminobutyl)-33-benzyl-56-formyl-9,18,30,42-tetrakis(3-guanidinopropyl)-49,53-bis(hydroxyamino)-24,45-bis(4-hydroxybenzyl)-1-imino-27-isopropyl-36-(mercaptomethyl)-7,10,13,16,19,22,25,28,31,34,37,40,43,46,47,50,51,54-octadecaoxo-2,8,11,14,17,20,23,26,29,32,35,38,41,44,55-pentadecaazahexacontan-6-yl)-2-((S)-5-guanidino-2-((S)-5-guanidino-2-((S)-5-guanidino-2-(hydroxyamino)pentanamido)pentanamido)pentanamido)pentanediamide, trifluoroacetate salt

H—Lys—Asp—Asp—Tyr—Arg—Trp—Cys—Phe—Arg—Val—
Tyr—Gly—Arg—Lys—Lys—Arg—Arg—Gln—Arg—Arg—Arg—OH
• XCF₃COOH

Synonyms: 736-745-Tat, Transient Receptor Potential Vanilloid 1-Tat

Peptide Sequence: KDDYRWCFRVYGRKKRRQRRR-OH

MF: C₁₂₇H₂₀₆N₅₀O₂₉S • XCF₃COOH

FW: 2,929.4

Purity: ≥98%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years

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

Laboratory Procedures

TRPV1-Tat (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the TRPV1-Tat (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. TRPV1-Tat (trifluoroacetate salt) is soluble in the organic solvent dimethyl formamide at a concentration of approximately 1 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of TRPV1-Tat (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of TRPV1-Tat (trifluoroacetate salt) in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

TRPV1-Tat is a peptide antagonist of transient receptor potential vanilloid 1 (TRPV1).¹ It consists of amino acids 736-745 from the A-kinase anchor protein (AKAP)-binding domain of TRPV1 and the cell-penetrating peptide sequence from HIV Tat. TRPV1-Tat (200 μM) inhibits currents induced by heat or phorbol 12-myristate 13-acetate (PMA; Item No. 10008014) in whole-cell patch-clamp assays using primary mouse dorsal root ganglia. It increases the hind paw mechanical pain threshold in rats when administered at the doses 10 or 30 μM.²

References

1. Fischer, M.J.M., Btsh, J., and McNaughton, P.A. *J. Neurosci.* **33**(17), 7407-7414 (2013).
2. Chung, M.-K., Lee, J., Joseph, J., et al. *J. Pain* **16**(1), 67-76 (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.

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, 09/26/2023

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