

PRODUCT INFORMATION



tcY-NH₂ (trifluoroacetate salt)

Item No. 36758

Formal Name: (S)-N-(2-(((S)-6-amino-1-(((S)-1-amino-1-oxo-3-phenylpropan-2-yl)amino)-1-oxohexan-2-yl)amino)-2-oxoethyl)-1-(cinnamoyl-L-tyrosyl)pyrrolidine-2-carboxamide, trifluoroacetate salt

Synonyms: tc-YPGKF-NH₂, *trans*-cinnamoyl-YPGKF-amide, *trans*-cinnamoyl-YPGKF-NH₂

MF: C₄₀H₄₉N₇O₇ • XCF₃COOH

FW: 739.9

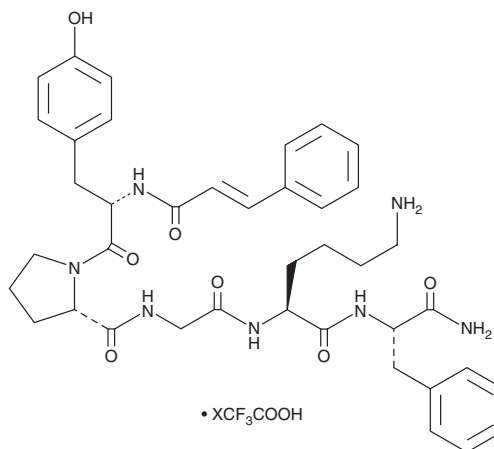
Purity: ≥98%

UV/Vis.: λ_{max}: 282 nm

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

tcY-NH₂ (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the tcY-NH₂ (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. tcY-NH₂ (trifluoroacetate salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of tcY-NH₂ (trifluoroacetate salt) in these solvents is approximately 33, 10, and 12 mg/ml, respectively.

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 tcY-NH₂ (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of tcY-NH₂ (trifluoroacetate salt) in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

tcY-NH₂ is a synthetic peptide antagonist of proteinase-activated receptor 4 (PAR4) that corresponds to amino acids 1-6 of the amino terminal tethered ligand sequence of mouse PAR4.¹ It inhibits platelet aggregation induced by the PAR4 agonist AYPGKF-NH₂ (Item No. 24258) in washed isolated rat platelets (IC₅₀ = 95-190 μM), as well as induces relaxation of isolated rat aortic rings precontracted with phenylephrine and contraction of isolated rat gastric longitudinal muscle strips (EC₅₀s = 64 and 1 μM, respectively). tcY-NH₂ (400 μM) inhibits thrombin-induced migration of primary hepatocellular carcinoma (HCC) cells.² It reduces myocardial infarct size as a percentage of the area at risk *ex vivo* in a isolated rat heart model of ischemia-reperfusion injury.³

References

1. Hollenberg, M.D., Saifedine, M., Sandhu, S., *et al.* *Br. J. Pharmacol.* **143**(4), 443-454 (2004).
2. Kaufmann, R., Rahn, S., Pollrich, K., *et al.* *J. Cell. Physiol.* **211**(3), 699-707 (2007).
3. Strande, J.L., Hsu, A., Su, J., *et al.* *J. Pharmacol. Exp. Ther.* **324**(3), 1045-1054 (2008).

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, 12/21/2022

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