

PRODUCT INFORMATION



Humanin (human) (trifluoroacetate salt)

Item No. 24150

Formal Name: L-methionyl-L-alanyl-L-prolyl-L-arginylglycyl-L-phenylalanyl-L-seryl-L-cysteinyl-L-leucyl-L-leucyl-L-leucyl-L-leucyl-L-threonyl-L-seryl-L- α -glutamyl-L-isoleucyl-L- α -aspartyl-L-leucyl-L-prolyl-L-valyl-L-lysyl-L-arginyl-L-arginyl-L-alanine, trifluoroacetate salt

H—Met—Ala—Pro—Arg—Gly—Phe—Ser—Cys—Leu—Leu—

Leu—Leu—Thr—Ser—Glu—Ile—Asp—Leu—Pro—Val—

Lys—Arg—Arg—Ala—OH

• XCF₃COOH

Synonym: HN

MF: C₁₁₉H₂₀₄N₃₄O₃₂S₂ • XCF₃COOH

FW: 2,687.2

Purity: ≥95%

Supplied as: A lyophilized powder

Storage: -20°C

Stability: ≥4 years

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

Laboratory Procedures

Humanin (human) (trifluoroacetate salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the humanin (human) (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. Humanin (human) (trifluoroacetate salt) is soluble in the organic solvent formic acid at a concentration of approximately 1 mg/ml.

Description

Humanin is a neuroprotective peptide.¹ It completely blocks amyloid- β (1-42) (A β 42) and A β 43-induced cell death of primary cortical neurons when used at a concentration of 10 μ M. Humanin also prevents amyloid precursor protein (APP) antibody-induced cell death and reduces neurotoxicity in FH11 cells induced by the APP mutants A617G-APP, L648P-APP, V642I-APP, and NL-APP, which are associated with familial Alzheimer's disease (IC₅₀s = 0.1-1 μ M). *In vivo*, humanin (0.375 mg/kg per hour) increases systemic insulin sensitivity and enhances glucose uptake in skeletal muscle of rats.²

References

1. Hashimoto, Y., Niikura, T., Ito, Y., *et al.* Detailed characterization of neuroprotection by a rescue factor humanin against various Alzheimer's disease-relevant insults. *J. Neurosci.* **21**(23), 9235-9245 (2001).
2. Muzumdar, R.H., Huffman, D.M., Atzmon, G., *et al.* Humanin: A novel central regulator of peripheral insulin action. *PLoS One* **4**(7), e6334 (2009).

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