



## Product Information

Product ID H2980

CAS No. 330936-69-1

**Chemical Name**

**Synonym**

Formula  $C_{119}H_{204}N_{34}O_{32}S_2$

Formula Wt. 2687.28

**Melting Point**

Purity  $\geq 95\%$

Solubility Soluble in formic acid (1 mg/mL), 5% acetic acid.

Store Temp  $-20^{\circ}C$

Ship Temp Ambient

**Description**

Humanin is an endogenous peptide that exhibits anti-apoptotic and neuroprotective activities. Humanin is overexpressed in some cancers and could possibly be used as a biomarker. In neurons undergoing ischemia/reperfusion, humanin decreases levels of lactate dehydrogenase and malondialdehyde, decreases the formation of karyopyknotic nuclei, and increases the activity of superoxide dismutase (SOD), increasing cell viability and survival. In other cellular models, humanin activates formyl peptide receptor-like receptors 1 and 2 (FPRL1/2), inhibiting Bax-dependent apoptosis and suppressing JNK-mediated cell death. Humanin also inhibits amyloid- $\beta$  (AB)-induced neuronal death in vitro and its effects in animal models of Alzheimer's disease.

Met-Ala-Pro-Arg-Gly-Phe-Ser-Cys-Leu-Leu-Leu-Leu-Thr-Ser-Glu-Ile-Asp-Leu-Pro-Val-Lys-Arg-Arg-Ala

**Bulk quantities available upon request**

Product ID	Size
H2980	0.5 mg
H2980	1 mg
H2980	2.5 mg

**References**

Mottaghi-Dastjerdi N, Soltany-Rezaee-Rad M, Sephezadeh Z, et al. Genome expression analysis by suppression subtractive hybridization identified overexpression of Humanin, a target gene in gastric cancer chemoresistance. *Daru*. 2014 Jan 8;22(1):14. PMID: 24401285.

Zhao ST, Huang XT, Zhang C, et al. Humanin protects cortical neurons from ischemia and reperfusion injury by the increased activity of superoxide dismutase. *Neurochem Res*. 2012 Jan;37(1):153-60. PMID: 21935731.

Zapala B, Kaczyński Ł, Kieć-Wilk B, et al. Humanins, the neuroprotective and cytoprotective peptides with antiapoptotic and anti-inflammatory properties. *Pharmacol Rep*. 2010 Sep-Oct;62(5):767-77. PMID: 21098860.

Niikura T, Tajima H, Kita Y. Neuronal cell death in Alzheimer's disease and a neuroprotective factor, humanin. *Curr Neuropharmacol*. 2006 Apr;4(2):139-47. PMID: 18615127.

Zhai D, Luciano F, Zhu X, et al. Humanin binds and nullifies Bid activity by blocking its activation of Bax and Bak. *J Biol Chem*. 2005 Apr 22;280(16):15815-24. PMID: 15661737.

Ying G, Iribarren P, Zhou Y, et al. Humanin, a newly identified neuroprotective factor, uses the G protein-coupled formylpeptide receptor-like-1 as a functional receptor. *J Immunol*. 2004 Jun 1;172(11):7078-85. PMID: 15153530.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.