

# PRODUCT INFORMATION



## Urotensin I (white sucker) (trifluoroacetate salt)

Item No. 24752

**Formal Name:** L-asparaginyl-L- $\alpha$ -aspartyl-L- $\alpha$ -aspartyl-L-prolyl-L-prolyl-L-isoleucyl-L-seryl-L-isoleucyl-L- $\alpha$ -aspartyl-L-leucyl-L-threonyl-L-phenylalanyl-L-histidyl-L-leucyl-L-leucyl-L-arginyl-L-asparaginyl-L-methionyl-L-isoleucyl-L- $\alpha$ -glutamyl-L-methionyl-L-alanyl-L-arginyl-L-isoleucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L- $\alpha$ -glutamyl-L-arginyl-L- $\alpha$ -glutamyl-L-glutamyl-L-alanylglycyl-L-leucyl-L-asparaginyl-L-arginyl-L-lysyl-L-tyrosyl-L-leucyl-L- $\alpha$ -aspartyl-L- $\alpha$ -glutamyl-L-valinamide, trifluoroacetate salt

H-Asn-Asp-Asp-Pro-Pro-Ile-Ser-Ile-Asp-Leu-Thr-Phe-His-Leu-Leu-Arg-Asn-Met-Ile-Glu-Met-Ala-Arg-Ile-Glu-Asn-Glu-Arg-Glu-Gln-Ala-Gly-Leu-Asn-Arg-Lys-Tyr-Leu-Asp-Glu-Val-NH<sub>2</sub>

**MF:** C<sub>210</sub>H<sub>340</sub>N<sub>62</sub>O<sub>67</sub>S<sub>2</sub> • XCF<sub>3</sub>COOH

**FW:** 4,869.5

**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

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

### Description

Urotensin I is a naturally occurring peptide involved in the regulation of cortisol and stress responses in teleost fish.<sup>1</sup> This corticotropin-releasing factor (CRF) family peptide binds to recombinant human CRF<sub>1</sub> and rat CRF<sub>2</sub> receptors with K<sub>i</sub> values of 0.7 and 22.9 nM, respectively.<sup>2</sup> Urotensin I expression increases in the preoptic area and caudal neurosecretory system of rainbow trout in response to isolation and hyperammonia stress, respectively, and correlates with plasma cortisol levels in masu salmon.<sup>3,4</sup> It suppresses food intake in rainbow trout (ED<sub>50</sub> = 17.4 ng/g).<sup>5</sup>

### References

1. Mimassi, N., Shahbazi, F., Jensen, J., *et al.* Cardiovascular actions of centrally and peripherally administered trout urotensin-I in the trout. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* **279**(2), R484-R491 (2000).
2. Primus, R.J., Yevich, E., Baltazar, C., *et al.* Autoradiographic localization of CRF<sub>1</sub> and CRF<sub>2</sub> binding sites in adult rat brain. *Neuropsychopharmacology* **17**(5), 308-316 (1997).
3. Bernier, N.J., Alderman, S.L., and Bristow, E.N. Heads or tails? Stressor-specific expression of corticotropin-releasing factor and urotensin I in the preoptic area and caudal neurosecretory system of rainbow trout. *J. Endocrinol.* **196**(3), 637-648 (2008).
4. C.G., W., Ando, H., Kitahashi, T., *et al.* Seasonal changes in CRF-I and urotensin I transcript levels in masu salmon: Correlation with cortisol secretion during spawning. *Gen. Comp. Endocrinol.* **155**(1), 126-140 (2008).
5. Ortega, V.A., Lovejoy, D.A., and Bernier, N.J. Appetite-suppressing effects and interactions of centrally administered corticotropin-releasing factor, urotensin I and serotonin in rainbow trout (*Oncorhynchus mykiss*). *Front. Neurosci.* **7**:196 (2013).

#### 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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