

# PRODUCT INFORMATION



## GnRH II (trifluoroacetate salt)

Item No. 24763

Formal Name:	5-oxo-L-prolyl-L-histidyl-L-tryptophyl-L-seryl-L-histidylglycyl-L-tryptophyl-L-tyrosyl-L-prolyl-glycinamide, trifluoroacetate salt	H-Glp-His-Trp-Ser-His-Gly-Trp-Tyr-Pro-Gly-NH <sub>2</sub>
Synonyms:	Gonadotropin-releasing Hormone II, LHRH II	• XCF <sub>3</sub> COOH
MF:	C <sub>60</sub> H <sub>69</sub> N <sub>17</sub> O <sub>13</sub> • XCF <sub>3</sub> COOH	
FW:	1,236.3	
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

Gonadotropin-releasing hormone II (GnRH II) (trifluoroacetate salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the GnRH II (trifluoroacetate salt) in water. The solubility of GnRH II (trifluoroacetate salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

GnRH II is a peptide agonist of the GnRH receptor (GnRHR).<sup>1</sup> It binds to human recombinant type I and marmoset type II GnRHRs (IC<sub>50</sub>s = 26.1 and 1.07 nM, respectively, in COS-7 cells) and stimulates inositol phosphate production (EC<sub>50</sub>s = 7.41 and 0.45 nM, respectively). GnRH II stimulates luteinizing hormone (LH) and follicle-stimulating hormone (FSH) release from cultured primary rhesus monkey anterior pituitary cells (EC<sub>50</sub>s = 0.37 and 0.59 nM, respectively) and dose-dependently stimulates LH and FSH release from cultured primary rat anterior pituitary cells.<sup>2</sup> *In vivo*, GnRH II (1 µg/kg, i.v.) increases plasma LH levels in White Leghorn pullets but does not affect plasma FSH levels.<sup>3</sup> It also decreases food intake in zebrafish and increases courtship behavior in female white-crowned sparrows when administered intracerebroventricularly at doses of 1 pmol/g and 100 ng, respectively.<sup>4,5</sup>

### References

1. Millar, R., Lowe, S., Conklin, D., *et al.* A novel mammalian receptor for the evolutionarily conserved type II GnRH. *Proc. Natl. Acad. Sci. U.S.A.* **98**(17), 9636-9641 (2001).
2. Okada, Y., Murota-Kawano, A., Kakar, S.S., *et al.* Evidence that gonadotropin-releasing hormone (GnRH) II stimulates luteinizing hormone and follicle-stimulating hormone secretion from monkey pituitary cultures by activating the GnRH I receptor. *Biol. Reprod.* **69**(4), 1356-1361 (2003).
3. Proudman, J.A., Scanes, C.G., Johannsen, S.A., *et al.* Comparison of the ability of the three endogenous GnRHs to stimulate release of follicle-stimulating hormone and luteinizing hormone in chickens. *Domest. Anim. Endocrinol.* **31**(2), 141-153 (2006).
4. Nishiguchi, R., Azuma, M., Yokobori, E., *et al.* Gonadotropin-releasing hormone 2 suppresses food intake in the zebrafish, *Danio rerio*. *Front. Endocrinol. (Lausanne)* **3**:122 (2012).
5. Maney, D.L., Richardson, R.D., and Wingfield, J.C. Central administration of chicken gonadotropin-releasing hormone-II enhances courtship behavior in a female sparrow. *Horm. Behav.* **32**(1), 11-18 (1997).

#### 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, 11/17/2022

#### 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