

# PRODUCT INFORMATION

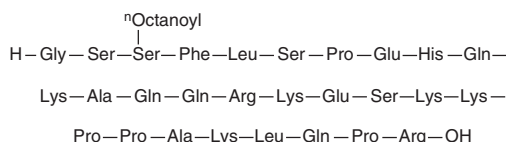


## Ghrelin (rat) (trifluoroacetate salt)

Item No. 24458

CAS Registry No.: 659739-25-0

Formal Name: glycyl-L-seryl-O-(1-oxooctyl)-L-seryl-L-phenylalanyl-L-leucyl-L-seryl-L-prolyl-L- $\alpha$ -glutamyl-L-histidyl-L-glutamyl-L-lysyl-L-alanyl-L-glutamyl-L-glutamyl-L-arginyl-L-lysyl-L- $\alpha$ -glutamyl-L-seryl-L-lysyl-L-lysyl-L-prolyl-L-prolyl-L-alanyl-L-lysyl-L-leucyl-L-glutamyl-L-prolyl-L-arginine, 2,2,2-trifluoroacetate



MF:  $\text{C}_{147}\text{H}_{245}\text{N}_{45}\text{O}_{42} \cdot \text{XCF}_3\text{COOH}$

FW: 3,314.8

$\cdot \text{XCF}_3\text{COOH}$

Purity:  $\geq 95\%$

Supplied as: A lyophilized powder

Storage:  $-20^\circ\text{C}$

Stability:  $\geq 4$  years

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

### Laboratory Procedures

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

### Description

Ghrelin is an endogenous gastrointestinal hormone and neuropeptide that binds to the growth hormone (GH) secretagogue receptor (GHS-R).<sup>1,2</sup> It increases intracellular calcium in CHO cells expressing rat GHS-R ( $\text{EC}_{50} = 2.5$  nM) and induces GH release from primary rat pituitary cells ( $\text{EC}_{50} = 2.1$  nM).<sup>1</sup> Ghrelin (10 nM) also reduces glucose-, arginine-, and carbachol-induced insulin release and arginine-induced somatostatin release from perfused rat pancreas.<sup>3</sup> It increases GH plasma levels in anesthetized rats, but does not affect follicle-stimulating hormone (FSH), luteinizing hormone (LH), prolactin, thyroid-stimulating hormone (TSH), or adrenocorticotrophic hormone (ACTH) levels when administered at a dose of 10  $\mu\text{g}$  per animal.<sup>1</sup> Ghrelin increases gastric motility in rats in a dose-dependent manner when administered intracranially into the lateral septum and increases food intake and body weight when administered intracerebroventricularly at a dose of 1  $\mu\text{g}$  per animal.<sup>4,5</sup>

### References

1. Kojima, M., Hosoda, H., Date, Y., et al. *Nature* **402(6762)**, 656-660 (1999).
2. Dickson, S.L., Egicioglu, E., Landgren, S., et al. *Mol. Cell Endocrinol.* **340(1)**, 80-87 (2011).
3. Egido, E.M., Rodríguez-Gallardo, J., Silvestre, R.A., et al. *Eur. J. Endocrinol.* **146(2)**, 241-244 (2002).
4. Gong, Y., Xu, L., Guo, F., et al. *J. Gastroenterol.* **49(2)**, 219-230 (2014).
5. Kamegai, J., Tamura, H., Shimizu, T., et al. *Diabetes* **50(11)**, 2438-2443 (2001).

#### 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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