



LKT Laboratories, Inc.

Ghrelin, rat

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Product Information

Product ID G2869

CAS No. 258338-12-4

Chemical Name

Synonym

Formula $C_{147}H_{245}N_{45}O_{42}$

Formula Wt. 3314.83

Melting Point

Purity $\geq 95\%$

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

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

Ship Temp Ambient

Description

Ghrelin is an endogenous peptide hormone that regulates feeding behavior, energy homeostasis, and secretion of growth hormone, growth hormone-releasing factor (GHRF/GHRH), and somatostatin. Ghrelin counteracts the effects of leptin, exhibiting orexigenic activity and increasing feeding behavior such as food intake and body weight. Ghrelin activates eNOS in endothelial cells, stimulating activation of AMPK and Akt. Ghrelin also enhances stress-induced fear responding in vivo and increases long-term potentiation (LTP) and dendritic spine synapse formation; it also exhibits cognition enhancing activity, improving spatial learning and memory in other in vivo models.

Gly-Ser-Ser(n-octanoyl)-Phe-Leu-Ser-Pro-Glu-His-Gln-Lys-Ala-Gln-Gln-Arg-Lys-Glu-Ser-Lys-Lys-Pro-Pro-Ala-Lys-Leu-Gln-Pro- Arg

Bulk quantities available upon request

Product ID	Size
G2869	1 mg
G2869	5 mg

References Meyer RM, Burgos-Robles A, Liu E, et al. A ghrelin-growth hormone axis drives stress-induced vulnerability to enhanced fear. *Mol Psychiatry*. 2013 Oct 15. [Epub ahead of print]. PMID: 24126924.

Xu X, Jhun BS, Ha CH, Jin ZG. Molecular mechanisms of ghrelin-mediated endothelial nitric oxide synthase activation. *Endocrinology*. 2008 Aug;149(8):4183-92. PMID: 18450953.

Diano S, Farr SA, Benoit SC, et al. Ghrelin controls hippocampal spine synapse density and memory performance. *Nat Neurosci*. 2006 Mar;9(3):381-8. PMID: 16491079.

Tschöp M, Smiley DL, Heiman ML. Ghrelin induces adiposity in rodents. *Nature*. 2000 Oct 19;407(6806):908-13. PMID: 11057670.

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