

PRODUCT INFORMATION



(Des-octanoyl)-Ghrelin (human) (trifluoroacetate salt)

Item No. 25010

Formal Name:	glycyl-L-seryl-L-seryl-L-phenylalanyl-L-leucyl-L-seryl-L-prolyl-L- α -glutamyl-L-histidyl-L-glutamyl-L-arginyl-L-valyl-L-glutamyl-L-glutamyl-L-arginyl-L-lysyl-L- α -glutamyl-L-seryl-L-lysyl-L-lysyl-L-prolyl-L-prolyl-L-alanyl-L-lysyl-L-leucyl-L-glutamyl-L-prolyl-L-arginine, trifluoroacetate salt	H—Gly—Ser—Ser—Phe—Leu—Ser—Pro—Glu—His—Gln—Arg—Val—Gln—Gln—Arg—Lys—Glu—Ser—Lys—Lys—Pro—Pro—Ala—Lys—Leu—Gln—Pro—Arg—OH
MF:	$C_{141}H_{235}N_{47}O_{41} \cdot XCF_3COOH$	$\cdot XCF_3COOH$
FW:	3,244.7	
Purity:	$\geq 95\%$	
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

(Des-octanoyl)-ghrelin (human) (trifluoroacetate salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the (des-octanoyl)-ghrelin (human) (trifluoroacetate salt) in water. The solubility of (des-octanoyl)-ghrelin (human) (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).^{1,2} Ghrelin requires an n-octanoyl modification at serine 3 for binding to the growth hormone (GH) secretagogue receptor (GHS-R).³ (Des-octanoyl)-ghrelin (human) is a form of ghrelin that is lacking the octanoyl group at serine 3. It is located in the mouse stomach and is expressed at a lower level than octanoyl ghrelin.⁴ (Des-octanoyl)-ghrelin activates GHS-R by only 41% when used at 10 μ M ($IC_{50} = >10,000$ nM; $EC_{50} = >10,000$ nM for increasing calcium accumulation).⁵ It induces bone marrow adipogenesis in rat models of growth hormone deficiency.⁶ (Des-octanoyl)-ghrelin also inhibits cell proliferation in estrogen-dependent MCF-7 breast cancer cells ($EC_{50} = 0.81$ μ M) but induces proliferation of a somatotroph pituitary tumor cell line, an effect that can be blocked by MAPK, PKC, and tyrosine kinase inhibitors.^{7,8}

References

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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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