

Name	Ghrelin, human
Cat #	PP-1310
Size	1 g, 10 g, 100, g and bulk custom packages
CAS#	258279-04-8
Mol. Mass	3371.92
Formula	C ₁₄₉ H ₂₄₉ N ₄ O ₄₂
Sequence	Gly-Ser-Ser(O-n-octanoyl)-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
Purity	>95%

Ghrelin is a hormone produced mainly by P/D1 cells lining the fundus of the human stomach and epsilon cells of the pancreas that stimulates appetite.[1] Ghrelin levels increase before meals and decrease after meals. It is considered the counterpart of the hormone leptin, produced by adipose tissue, which induces satiation when present at higher levels. In some bariatric procedures, the level of ghrelin is reduced in patients, thus causing satiation before it would normally occur.

Ghrelin is also produced in the hypothalamic arcuate nucleus, where it stimulates the secretion of growth hormone from the anterior pituitary gland.[2]. Receptors for ghrelin are expressed by neurons in the arcuate nucleus and the ventromedial hypothalamus. The ghrelin receptor is a G protein-coupled receptor, formerly known as the GHS receptor (growth hormone secretagogue receptor).

Ghrelin plays a significant role in neurotropy, particularly in the hippocampus, and is essential for cognitive adaptation to changing environments and the process of learning.[3] Recently, ghrelin has been shown to activate the endothelial isoform of nitric oxide synthase in a pathway that depends on various kinases including Akt.

Ghrelin is an endogenous ligand to the orphan growth-hormone secretagogue receptor that stimulates the release of growth hormone from the pituitary.