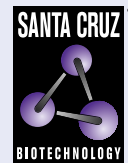


## ghrelin (C1): sc-517596



The Power to Question

## BACKGROUND

Small synthetic molecules called growth-hormone secretagogues (GHSs) act through GSH-R to stimulate the release of GH from the pituitary. Ghrelin is an endogenous ligand for the growth hormone secretagogue receptor (GHS-R). Ghrelin and GHRH are involved in the regulation of GH release from the pituitary. GHRH exerts its action through high-affinity GHRH receptors (GHRH-R) present in the anterior pituitary. The acylated peptide of ghrelin specifically releases GH both *in vivo* and *in vitro* and is found in stomach tissue. GH plays a crucial role in stimulating and controlling the growth, metabolism and differentiation of many mammalian cell types by modulating the synthesis of multiple mRNA species. The gene encoding ghrelin maps to human chromosome 3p25.3.

## REFERENCES

1. Campbell, R.M., et al. 1992. Evolution of the growth hormone-releasing factor (GRF) family of peptides. *Growth Regul.* 2: 175-191.
2. Mayo, K.E. 1992. Molecular cloning and expression of a pituitary-specific receptor for growth hormone-releasing hormone. *Mol. Endocrinol.* 6: 1734-1744.
3. Howard, A.D., et al. 1996. A receptor in pituitary and hypothalamus that functions in growth hormone release. *Science* 273: 974-977.
4. McKee, K.K., et al. 1997. Molecular analysis of rat pituitary and hypothalamic growth hormone secretagogue receptors. *Mol. Endocrinol.* 11: 415-423.
5. Bowers, C.Y. 1998. Growth hormone-releasing peptide (GHRP). *Cell. Mol. Life Sci.* 54: 1316-1329.
6. Kojima, M., et al. 1999. Ghrelin is a growth-hormone-releasing acylated peptide from stomach. *Nature* 402: 656-660.
7. Date, Y., et al. 2001. Ghrelin acts in the central nervous system to stimulate gastric acid secretion. *Biochem. Biophys. Res. Commun.* 280: 904-907.
8. Toshinai, K., et al. 2001. Upregulation of ghrelin expression in the stomach upon fasting, Insulin-induced hypoglycemia, and leptin administration. *Biochem. Biophys. Res. Commun.* 281: 1220-1225.
9. Gaytan, F., et al. 2004. Expression of ghrelin and its functional receptor, the type 1a growth hormone secretagogue receptor, in normal human testis and testicular tumors. *J. Clin. Endocrinol. Metab.* 89: 400-409.

## CHROMOSOMAL LOCATION

Genetic locus: GHRL (human) mapping to 3p25.3; Ghrl (mouse) mapping to 6 E3.

## SOURCE

ghrelin (C1) is a mouse monoclonal antibody raised against OVA-conjugated ghrelin of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2b</sub> lambda light chain in 1.0 ml of PBS with < 0.1% sodium azide, 0.1% gelatin and 5% glycerol.

## APPLICATIONS

ghrelin (C1) is recommended for detection of ghrelin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for ghrelin siRNA (h): sc-39517, ghrelin siRNA (m): sc-39518, ghrelin shRNA Plasmid (h): sc-39517-SH, ghrelin shRNA Plasmid (m): sc-39518-SH, ghrelin shRNA (h) Lentiviral Particles: sc-39517-V and ghrelin shRNA (m) Lentiviral Particles: sc-39518-V.

Molecular Weight of ghrelin: 13 kDa.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgGλ BP-HRP: sc-516132 or m-IgGλ BP-HRP (Cruz Marker): sc-516132-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.
- 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- 3) Immunofluorescence: use m-IgGλ BP-FITC: sc-516185 or m-IgGλ BP-PE: sc-516186 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.
- 4) Immunohistochemistry: use m-IgGλ BP-HRP: sc-516132 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## SELECT PRODUCT CITATIONS

1. Tanida, R., et al. 2022. GHS-R1a deficiency mitigates lipopolysaccharide-induced lung injury in mice via the downregulation of macrophage activity. *Biochem. Biophys. Res. Commun.* 589: 260-266.
2. Zhang, Y., et al. 2022. Pegylated arginine deiminase drives arginine turnover and systemic autophagy to dictate energy metabolism. *Cell Rep. Med.* 3: 100498.
3. Liao, S.S., et al. 2024. Ghrelin alleviates intestinal ischemia-reperfusion injury by activating the GHSR-1α/Sirt1/FOXO1 pathway. *FASEB J.* 38: e23681.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.