

# GHRH (I-18): sc-10283

## BACKGROUND

Growth hormone-releasing hormone (GHRH), also designated somatoliberin or GRF, is a member of the GRF superfamily of structurally related peptide hormones. Members of the GRF superfamily have amphiphilic  $\alpha$ -helical secondary structures as their preferred bioactive conformations. GHRH exerts its action through high-affinity GHRH receptors (GHRH-R) present in the anterior pituitary. GHRH also functions as an autocrine/paracrine growth factor for small cell lung carcinoma. GHRH stimulates secretion and synthesis of growth hormone, causes somatotroph proliferation, and may have direct actions in fetal/placental development, reproduction and immune function. The GRF superfamily includes vasoactive intestinal peptide, pituitary adenylate cyclase-activating polypeptide, secretin and glucagon. The gene encoding GHRH maps to human chromosome 20q11.2.

## 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. Gaylinn, B.D., et al. 1993. Molecular cloning and expression of a human anterior pituitary receptor for growth hormone-releasing hormone. *Mol. Endocrinol.* 7: 77-84.
4. Perez Jurado, L.A., et al. 1994. Genetic mapping of the human growth hormone-releasing factor gene (GHRF) using two intragenic polymorphisms detected by PCR amplification. *Genomics* 20: 132-134.
5. Kiaris, H., et al. 1999. Growth hormone-releasing hormone: an autocrine growth factor for small cell lung carcinoma. *Proc. Natl. Acad. Sci. USA* 96: 14894-14898.
6. Petersenn, S., et al. 2000. Structure and function of the growth-hormone-releasing hormone receptor. *Vitam. Horm.* 59: 35-69.

## CHROMOSOMAL LOCATION

Genetic locus: *Ghrh* (rat) mapping to 3q42.

## SOURCE

GHRH (I-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of GHRH of rat origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-10283 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

GHRH (I-18) is recommended for detection of precursor and mature GHRH of rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of GHRH: 12 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## SELECT PRODUCT CITATIONS

1. Asai, M., et al. 2004. Nuclear factor of activated T cells (NFAT) is involved in the depolarization-induced activation of growth hormone-releasing hormone gene transcription *in vitro*. *Mol. Endocrinol.* 18: 3011-3019.

## 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) or our catalog for detailed protocols and support products.