SANTA CRUZ BIOTECHNOLOGY, INC.

GHS-R1 (N-19): sc-10357

BACKGROUND

GHS-R1 (growth hormone secretagogue receptor type 1) is a G protein-coupled receptor. GHS-R1 binds synthetic peptidyl and nonpeptidyl growth hormone secretagogues (GHS), which stimulate growth hormone (GH) release. The binding of GHS to GHS-R1 is magnesium-dependent, inhibited by GTP-γ-S and not displaced by the two hypothalamic hormones, growth hormone releasing hormone (GHRH) and somatostatin. This suggests that the interaction between GHS and GHS-R1 is distinct from GH regulation via GHRH and somatostatin and there exists a natural growth hormone regulator specific for GHS-R. GHS-R1 is primarily expressed in the hypothalamus and pituitary, and expression has been shown to be elevated in pituitary adenoma tissue.

REFERENCES

1. Pong, S.S., et al. 1996. Identification of a new G protein-linked receptor for growth hormone secretagogues. Mol. Endocrinol. 10: 57-61.
2. Bennett, P.A., et al. 1997. Hypothalamic growth hormone secretagogue-receptor (GHS-R) expression is regulated by growth hormone in the rat. Endocrinology 138: 4552-4557.
3. Guan, X.M., et al. 1997. Distribution of mRNA encoding the growth hormone secretagogue receptor in brain and peripheral tissues. Brain Res. Mol. Brain Res. 48: 23-29.
4. Kamegai, J., et al. 1998. Growth hormone-dependent regulation of pituitary GF secretagogue receptor (GHS-R) mRNA levels in the spontaneous dwarf rat. Neuroendocrinology 68: 312-318.
5. Korbonits, M., et al. 1998. Expression of the growth hormone secretagogue receptor in pituitary adenomas and other neuroendocrine tumors. J. Clin. Endocrinol. Metab. 83: 3624-3630.
6. Barlier, A., et al. 1999. Expression of functional growth hormone secretagogue receptors in human pituitary adenomas: polymerase chain reaction, triple *in situ* hybridization and cell culture studies. J. Neuroendocrinol. 11: 491-502.

CHROMOSOMAL LOCATION

Genetic locus: GHSR (human) mapping to 3q26.31.

SOURCE

GHS-R1 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of GHS-R1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-10357 P, (100 µg 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

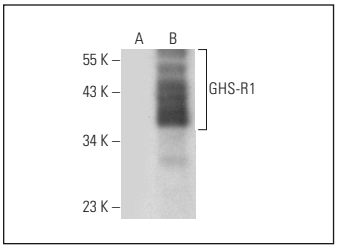
GHS-R1 (N-19) is recommended for detection of GHS-R1a and GHS-R1b of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for GHS-R1 siRNA (h): sc-40017, GHS-R1 shRNA Plasmid (h): sc-40017-SH and GHS-R1 shRNA (h) Lentiviral Particles: sc-40017-V.

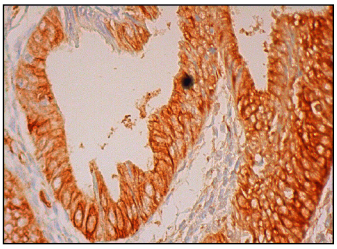
Molecular Weight of GHS-R1: 44 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or GHS-R1 (h): 293T Lysate: sc-373064.

DATA



GHS-R1 (N-19): sc-10357. Western blot analysis of GHS-R1 expression in non-transfected: sc-117752 (**A**) and human GHS-R1 transfected: sc-373064 (**B**) 293T whole cell lysates.



GHS-R1 (N-19): sc-10357. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pre-menopausal uterus tissue showing membrane and cytoplasmic staining of glandular cells.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.