

GHR (H-300): sc-20747

BACKGROUND

GHR (growth hormone receptor) binds growth hormone (GH), which is produced by the anterior pituitary and regulates body growth and other metabolic processes. GHR is an integral membrane protein and a member of the cytokine receptor family. A common characteristic of the cytokine receptor family is having soluble forms of the protein. The soluble form of GHR is GH-binding protein (GHBP), which is generated by the proteolytic cleavage of the extracellular domain of GHR. Reduced levels of GHBP are associated with GH insensitivity syndrome (GHIS). GHR has been shown to be transcribed via at least two different promoters, resulting in GHR 1A and GHR 1B. Both GHR 1A and 1B are expressed in liver, whereas GHR 1B is also expressed in muscle, uterus and ovary tissues.

REFERENCES

1. Dastot, F., et al. 1996. Alternatively spliced forms in the cytoplasmic domain of the human growth hormone (GH) receptor regulate its ability to generate a soluble GH-binding protein. *Proc. Natl. Acad. Sci. USA* 93: 10723-10728.
2. Bick, T., et al. 1996. Regulation of cellular rabbit growth hormone (GH) receptor and GH-binding protein generation *in vitro*. *Endocrinology* 137: 3977-3985.
3. Iida, K., et al. 1998. Growth hormone (GH) insensitivity syndrome with high serum GH-binding protein levels caused by a heterozygous splice site mutation of the GH receptor gene producing a lack of intracellular domain. *J. Clin. Endocrinol. Metab.* 83: 531-537.
4. Ross, R.J. 1999. The GH receptor and GH insensitivity. *Growth Horm. IGF Res.* 9: 42-45.
5. Amit, T., et al. 2000. Clinical review 112: Does serum growth hormone (GH) binding protein reflect human GH receptor function? *J. Clin. Endocrinol. Metab.* 85: 927-932.
6. Liu, J., et al. 2000. Expression of two variants of growth hormone receptor messenger ribonucleic acid in porcine liver. *J. Anim. Sci.* 78: 306-317.

CHROMOSOMAL LOCATION

Genetic locus: GHR (human) mapping to 5p13.1; Ghr (mouse) mapping to 15 A1.

SOURCE

GHR (H-300) is a rabbit polyclonal antibody raised against amino acids 339-638 of GHR 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.

STORAGE

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

APPLICATIONS

GHR (H-300) is recommended for detection of GHR of human and, to a lesser extent, mouse and rat 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for GHR siRNA (h): sc-40015, GHR siRNA (m): sc-40016, GHR shRNA Plasmid (h): sc-40015-SH, GHR shRNA Plasmid (m): sc-40016-SH, GHR shRNA (h) Lentiviral Particles: sc-40015-V and GHR shRNA (m) Lentiviral Particles: sc-40016-V.

Molecular Weight of GHR precursor: 110 kDa.

Molecular Weight of glycosylated mature GHR: 140 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

SELECT PRODUCT CITATIONS

1. Alvaro, D., et al. 2008. Morphological and functional features of hepatic cyst epithelium in autosomal dominant polycystic kidney disease. *Am. J. Pathol.* 172: 321-332.
2. Li, G., et al. 2008. Growth hormone exerts acute vascular effects independent of systemic or muscle Insulin-like growth factor I. *J. Clin. Endocrinol. Metab.* 93: 1379-1385.
3. Steffl, M., et al. 2009. Expression and localization of growth hormone receptor in the oviduct of cyclic and pregnant pigs and mid-implantation conceptuses. *Histochem. Cell Biol.* 131: 773-779.
4. Nakonechnaya, A.O., et al. 2013. Differential effects of exogenous and autocrine growth hormone on LNCaP prostate cancer cell proliferation and survival. *J. Cell. Biochem.* 114: 1322-1335.

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.



Try **GHR (B-10): sc-137185** or **GHR (B-12): sc-137184**, our highly recommended monoclonal alternatives to GHR (H-300). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **GHR (B-10): sc-137185**.