SANTA CRUZ BIOTECHNOLOGY, INC.

GHR (MAB 7): sc-69882

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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., Sobrier, M.L., Duquesnoy, P., Duriez, B., Goossens, M. and Amselem, S. 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., Amit, T., Mansur, M., Bar-Am, O., Youdim, M.B. and Hochberg, Z. 1996. Regulation of cellular rabbit growth hormone (GH) receptor and GH-binding protein generation *in vitro*. Endocrinology 137: 3977-3985.
3. Iida, K., Takahashi, Y., Kaji, H., Nose, O., Okimura, Y., Abe, H. and Chihara, K. 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., Youdim, M.B. and Hochberg, Z. 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., Carroll, J.A., Matteri, R.L. and Lucy, M.C. 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.

SOURCE

GHR (MAB 7) is a mouse monoclonal antibody raised against purified GHR of rabbit origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available azide-free for blocking of the GHR binding site, sc-69882 L, 200 µg/0.1 ml.

RESEARCH USE

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

APPLICATIONS

GHR (MAB 7) is recommended for detection of GHR of rabbit, porcine, equine, feline and canine origin by functional assay.

Molecular Weight of precursor GHR: 110 kDa.

Molecular Weight of glycosylated mature GHR: 140 kDa.

STORAGE

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

PROTOCOLS

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

CONJUGATES

See **GHR (B-10): sc-137185** for GHR antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.