

GHR (MAB 43): sc-69881

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

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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 43) is a mouse monoclonal antibody raised against purified GHR of rabbit origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available azide-free for inhibition of binding to rabbit GHR, sc-69881 L, 200 µg/0.1 ml.

GHR (MAB 43) is available conjugated to either phycoerythrin (sc-69881 PE) or fluorescein (sc-69881 FITC), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

GHR (MAB 43) is recommended for detection of extracellular domain of GHR of human origin by Western Blotting (starting dilution 1:200, dilution range 1:1000-1:10000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and flow cytometry (1 µg per 1 x 10⁶ cells).

GHR (MAB 43) is also recommended for detection of extracellular domain of GHR in additional species, including ovine and rabbit.

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

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-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).

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 for detailed protocols and support products.



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.