

GHR (MAB 263): sc-57161

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 (GHP), which is generated by the proteolytic cleavage of the extracellular domain of GHR. Reduced levels of GHP 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.

CHROMOSOMAL LOCATION

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

SOURCE

GHR (MAB 263) is a mouse monoclonal antibody raised against purified GHR of rabbit and rat 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 partial blocking of binding of GH in rabbit and rat, and has been used as a growth hormone agonist, sc-57161 L, 200 µg/0.1 ml.

GHR (MAB 263) is available conjugated to either phycoerythrin (sc-57161 PE) or fluorescein (sc-57161 FITC), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

GHR (MAB 263) is recommended for detection of GHR of mouse, rat, human and rabbit 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 flow cytometry (1 µg per 1 x 10⁶ cells).

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: rat liver extract: sc-2395, Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

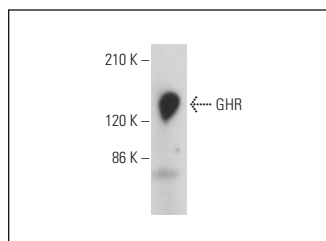
STORAGE

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

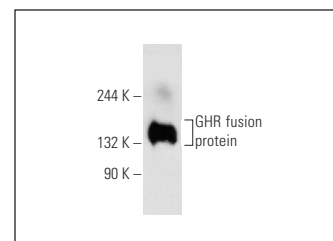
RESEARCH USE

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

DATA



GHR (MAB 263): sc-57161. Western blot analysis of GHR expression in rat liver tissue extract.



GHR (MAB 263): sc-57161. Western blot analysis of rat recombinant GHR fusion protein.

SELECT PRODUCT CITATIONS

1. Takahashi, Y., et al. 1997. Biologically inactive growth hormone caused by an amino acid substitution. *J. Clin. Invest.* 100: 1159-1165.
2. Hellgren, G., et al. 1999. The growth hormone receptor associates with JAK1, JAK2 and Tyk2 in human liver. *Growth Horm. IGF Res.* 9: 212-218.
3. Figueiredo, M.A., et al. 2016. High level of GHR nuclear translocation in skeletal muscle of a hyperplasia transgenic zebrafish. *J. Mol. Endocrinol.* 56: 47-54.
4. Rege, S.D., et al. 2019. Brain trauma disrupts hepatic lipid metabolism: blame it on fructose? *Mol. Nutr. Food Res.* 63: e1801054.
5. Kang, D.Y., et al. 2020. Non-toxic sulfur enhances growth hormone signaling through the JAK2/STAT5b/IGF-1 pathway in C2C12 cells. *Int. J. Mol. Med.* 45: 931-938.
6. Lyu, X., et al. 2020. Acute sleep deprivation leads to growth hormone (GH) resistance in rats. *Gen. Comp. Endocrinol.* 296: 113545.
7. Bojorge, M.A., et al. 2021. Morphological and molecular effects of overexpressed GH on mice mammary gland. *Mol. Cell. Endocrinol.* 538: 111465.

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.