

GHR (B-10): sc-137185

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.

CHROMOSOMAL LOCATION

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

SOURCE

GHR (B-10) is a mouse monoclonal antibody raised against amino acids 339-638 of GHR of human 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.

GHR (B-10) is available conjugated to agarose (sc-137185 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-137185 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-137185 PE), fluorescein (sc-137185 FITC), Alexa Fluor® 488 (sc-137185 AF488), Alexa Fluor® 546 (sc-137185 AF546), Alexa Fluor® 594 (sc-137185 AF594) or Alexa Fluor® 647 (sc-137185 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-137185 AF680) or Alexa Fluor® 790 (sc-137185 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

GHR (B-10) is recommended for detection of GHR of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 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.

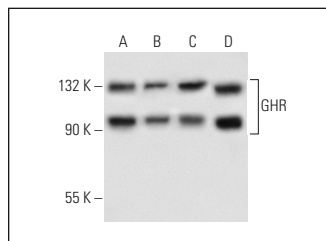
Molecular Weight of glycosylated mature GHR: 140 kDa.

Positive Controls: L8 whole cell lysate: sc-3807, Hep G2 whole cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

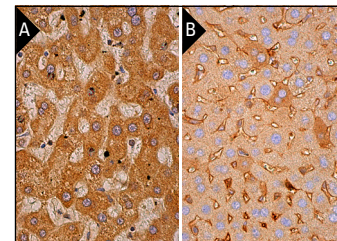
STORAGE

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

DATA



GHR (B-10): sc-137185. Western blot analysis of GHR expression in Hep G2 (A), HeLa (B), Sol8 (C) and L8 (D) whole cell lysates.



GHR (B-10): sc-137185. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse liver tissue showing cytoplasmic staining of hepatocytes and membrane and cytoplasmic staining of hepatic sinusoidal cells (B).

SELECT PRODUCT CITATIONS

- Ladiges, W., et al. 2000. Tissue specific expression of PKR protein kinase in aging B6D2F1 mice. *Mech. Ageing Dev.* 114: 123-132.
- Sun, F., et al. 2015. Development and characterization of a novel GHR antibody antagonist, GF185. *Int. J. Biol. Macromol.* 79: 864-870.
- Alkharusi, A., et al. 2016. Role of prolactin receptors in lymphangioliomyomatosis. *PLoS ONE* 11: e0146653.
- Basu, R., et al. 2017. Targeting growth hormone receptor in human melanoma cells attenuates tumor progression and epithelial mesenchymal transition via suppression of multiple oncogenic pathways. *Oncotarget* 8: 21579-21598.
- Banerjee, S. and Chaturvedi, C.M. 2018. Specific neural phase relation of serotonin and dopamine modulate the testicular activity in Japanese quail. *J. Cell. Physiol.* 234: 2866-2879.
- Zecchini, S., et al. 2019. Autophagy controls neonatal myogenesis by regulating the GH-IGF1 system through a NFE2L2- and DDIT3-mediated mechanism. *Autophagy* 15: 58-77.
- Chesnokova, V., et al. 2019. Growth hormone induces colon DNA damage independent of IGF-1. *Endocrinology* 160: 1439-1447.
- Katz, T.A., et al. 2020. Hepatic tumor formation in adult mice developmentally exposed to organotin. *Environ. Health Perspect.* 128: 17010.
- Nishad, R., et al. 2021. Growth hormone induces mitotic catastrophe of glomerular podocytes and contributes to proteinuria. *Cell Death Dis.* 12: 342.

RESEARCH USE

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

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