

gp130 (H-255): sc-9045

BACKGROUND

IL-6 activates intracellular signaling through binding a receptor consisting of a ligand-binding protein (IL-6R) and a second protein. IL-6 first binds to IL-6R which subsequently associates with a gp130 dimer. The active signaling complex consists of at minimum IL-6, IL-6R and a dimer of 2 gp130 proteins that are linked by a disulfide bond. A soluble form of IL-6R is generated by proteolytic cleavage of the membrane-bound precursor and can function as an agonistic molecule that can actively participate in cell-to-cell signaling. The second subunit of the IL-6 complex, gp130, also functions as a component of several additional receptor complexes including leukemia inhibitory factor (LIF), oncostatin M (OSM), ciliary neurotrophic factor (CNTF) and IL-11. LIF binds to the LIF receptor with low affinity and to a complex of the LIF receptor and gp130 with high affinity while OSM appears to bind to gp130 with low affinity and to a complex of gp130 and the LIF receptor with high affinity.

CHROMOSOMAL LOCATION

Genetic locus: IL6ST (human) mapping to 5q11.2; Il6st (mouse) mapping to 13 D2.2.

SOURCE

gp130 (H-255) is a rabbit polyclonal antibody raised against amino acids 365-619 of gp130 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.

APPLICATIONS

gp130 (H-255) is recommended for detection of gp130 of mouse, rat and human 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

gp130 (H-255) is also recommended for detection of gp130 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for gp130 siRNA (h): sc-29333, gp130 siRNA (m): sc-35502, gp130 shRNA Plasmid (h): sc-29333-SH, gp130 shRNA Plasmid (m): sc-35502-SH, gp130 shRNA (h) Lentiviral Particles: sc-29333-V and gp130 shRNA (m) Lentiviral Particles: sc-35502-V.

Molecular Weight of gp130: 130 kDa.

Positive Controls: WEHI-231 whole cell lysate: sc-2213, PC-12 cell lysate: sc-2250 or HeLa whole cell lysate: sc-2200

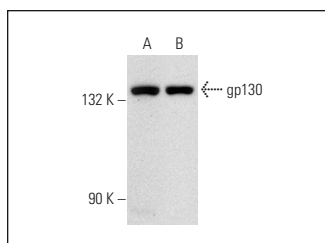
STORAGE

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

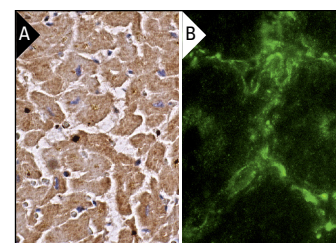
RESEARCH USE

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

DATA



gp130 (H-255): sc-9045. Western blot analysis of gp130 expression in WEHI-231 (A) and PC-12 (B) whole cell lysates.



gp130 (H-255): sc-9045. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes (A). Immunofluorescence staining of normal mouse intestine frozen section showing membrane staining (B).

SELECT PRODUCT CITATIONS

- Hurst, S.M., et al. 2002. Secretion of oncostatin M by infiltrating neutrophils: regulation of IL-6 and chemokine expression in human mesothelial cells. *J. Immunol.* 169: 5244-5251.
- Kawada, M., et al. 2006. Establishment of a highly tumorigenic LNCaP cell line having inflammatory cytokine resistance. *Cancer Lett.* 242: 46-52.
- Zhao, S., et al. 2008. Altered interleukin-6 receptor, IL-6R and gp130, production and expression and decreased SOCS-3 expression in placentas from women with pre-eclampsia. *Placenta* 29: 1024-1028.
- Inta, I., et al. 2009. Correlation of soluble gp130 serum concentrations with arterial blood pressure. *J. Hypertens.* 27: 527-534.
- Ardito, G., et al. 2010. Immunohistochemical evaluation of inflammatory and proliferative markers in adjacent normal thyroid tissue in patients undergoing total thyroidectomy: results of a preliminary study. *J. Exp. Clin. Cancer Res.* 29: 77.
- Wang, Y., et al. 2011. Elevated maternal soluble Gp130 and IL-6 levels and reduced Gp130 and SOCS-3 expressions in women complicated with preeclampsia. *Hypertension* 57: 336-342.
- Nogueira-Silva, C., et al. 2013. The role of glycoprotein 130 family of cytokines in fetal rat lung development. *PLoS ONE* 8: e67607.

PROTOCOLS

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



Try **gp130 (E-8): sc-376280** or **gp130 (AN-H2): sc-9994**, our highly recommended monoclonal alternatives to gp130 (H-255). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **gp130 (E-8): sc-376280**.