SANTA CRUZ BIOTECHNOLOGY, INC.

p-gp130 (Ser 782)-R: sc-22346-R

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

IL-6 activates intracellular signaling by binding to IL-6R (the IL-6 receptor), which subsequently associates with a second protein, known as gp130. The active signaling complex consists of at minimum IL-6, IL-6R and a dimer of two gp130 proteins that are linked by a disulfide bond. 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. The major phosphorylation site of human gp130 is located immediately N-terminal to the di-leucine motif of gp130, which regulates the internalization of the receptor. Phosphorylation of this site, Ser 782, regulates cell surface expression of the receptor polypeptide.

REFERENCES

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2. Taga, T., Hibi, M., Hirata, Y., Yamasaki, K., Matsuda, T., Hirano, T. and Kishimoto, T. 1989. Interleukin-6 triggers the association of its receptor with a possible signal transducer, gp130. Cell 58: 573-581.
3. Hibi, M., Murakami, M., Saito, M., Hirano, T., Taga, T. and Kishimoto, T. 1990. Molecular cloning and expression of an IL-6 signal transducer, gp130. Cell 63: 1149-1157.
4. Davis, S., Aldrich, T.H., Stahl, N., Pan, L., Taga, T., Kishimoto, T., Ip, N.Y. and Yancopoulos, G.D. 1993. LIFR and gp130 as heterodimerizing signal transducers of the tripartide CNTF receptor. Science 260: 1805-1808.
5. Murakami, M., Hibi, M., Nakagawa, N., Nakagawa, T., Yasukawa, Y., Yamanishi, K., Taga, T. and Kishimoto, T. 1993. Critical cytoplasmic region of the interleukin-6 signal transducer gp130 is conserved in the cytokine receptor family. Science 260: 1808-1810.
6. Gibson, R.M., Schiemann, W.P., Prichard, L.B., Reno, J.M., Ericsson, L.H. and Nathanson, N.M. 2000. Phosphorylation of human gp130 at Ser 782 adjacent to the di-leucine internalization motif. Effects on expression and signaling. J. Biol. Chem. 275: 22574-22582.

CHROMOSOMAL LOCATION

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

SOURCE

p-gp130 (Ser 782)-R is a rabbit polyclonal antibody raised against a short amino acid sequence containing phosphorylated Ser 782 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.

Blocking peptide available for competition studies, sc-22346 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p-gp130 (Ser 782)-R is recommended for detection of Ser 782 phosphorylated 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p-gp130 (Ser 782)-R is also recommended for detection of correspondingly phosphorylated Ser on gp130 in additional species, including avian.

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.

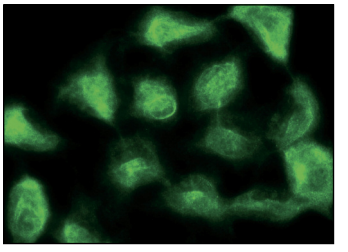
Molecular Weight of p-gp130: 130 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Western Blotting Luminol Reagent: sc-2048 and Lambda Phosphatase: sc-200312A. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



p-gp130 (Ser 782)-R: sc-22346-R. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

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.