SANTA CRUZ BIOTECHNOLOGY, INC.

p-gp130 (Ser 782): sc-12978

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.

CHROMOSOMAL LOCATION

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

SOURCE

p-gp130 (Ser 782) is available as either goat (sc-12978) or rabbit (sc-12978-R) polyclonal affinity purified antibody raised against a short amino acid sequence containing Ser 782 phosphorylated 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-12978 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

p-gp130 (Ser 782) 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), 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). p-gp130 (Ser 782) is also recommended for detection of correspondingly phosphorylated gp130 in additional species, including equine, canine, bovine, porcine and 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.

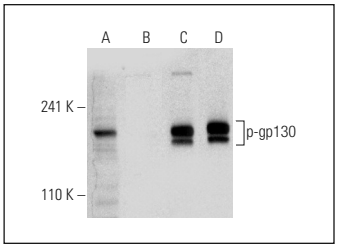
Molecular Weight of p-gp130: 130 kDa.

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

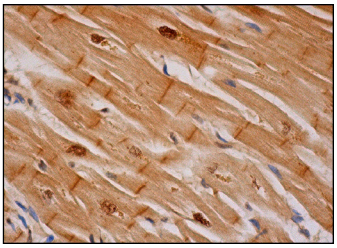
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: for goat primary antibody (sc-12978): use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), for rabbit primary antibody (sc-12978-R): 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: for goat primary antibody (sc-12978): use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941, for rabbit primary antibody (sc-12978-R): 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Western blot analysis of gp130 phosphorylation in untreated (**A**,**C**) and lambda protein phosphatase (sc-200312A) treated (**B**,**D**) c4 whole cell lysates. Antibodies tested include p-gp130 (Ser 782)-R: sc-12978-R (**A**,**B**) and gp130 (M-20): sc-656 (**C**,**D**).



gp130 (Ser 782)-R: sc-12978-R. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic, membrane and nuclear staining of myocytes.

SELECT PRODUCT CITATIONS

1. Ateghang, B., et al. 2006. Regulation of Cardiotrophin-1 expression in mouse embryonic stem cells by HIF-1α and intracellular reactive oxygen species. J. Cell Sci. 119: 1043-1052.
2. Redvers, R.P. 2008. The role of interleukin-6/gp130 signaling in prostate cancer progression and its contribution to bone metastasis morbidity. U.S. Army Medical Research and Materiel Command. Fort Detrick, M.D.

RESEARCH USE

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