

p-p130 (Ser 966): sc-16300

BACKGROUND

The human retinoblastoma gene product plays an important role in the negative regulation of cell proliferation. Functional inactivation of Rb can be mediated either through mutation or as a consequence of interaction with DNA tumor virus encoded proteins. pRb and the structurally related p107 form complexes with E2F, a transcription factor originally identified through its role in transcriptional activation of the adenovirus E2 promoter. Moreover, pRb and p107 share a high degree of structural homology in the adenovirus E1A binding domain (i.e., "pocket region") that is believed to play a primary role in the function of these proteins. A protein designated p130 shows a high degree of identity with pRb and p107 and also possesses a pocket region. p130 undergoes cell cycle dependent phosphorylation during the mid-G₁ to S phase transition and this phosphorylation is dependent upon the activity of cyclin D/Cdk4. In contrast to pRb and p107, p130 is phosphorylated during G₀ and the early G₁ phase of the cell cycle. p130 is specifically phosphorylated on Serine and Threonine residues in cells arrested in G₀ by serum deprivation or density arrest. Most of the phospho-serine and phospho-threonine residues are clustered within a short co-linear region unique to p130, defined as the Loop.

REFERENCES

1. Kovcsdi, I., et al. 1986. Identification of a cellular transcription factor involved in E1A transactivation. *Cell* 45: 219-228.
2. Chellappan, S., et al. 1991. The E2F transcription factor is a cellular target for the RB protein. *Cell* 65: 1053-1061.
3. Chittenden, T., et al. 1991. The T/E1A-binding domain of the retinoblastoma product can interact selectively with a sequence-specific DNA-binding protein. *Cell* 65: 1073-1082.
4. Bandara, L., et al. 1991. Cyclin A and the retinoblastoma gene product complex with a common transcription factor. *Nature* 352: 249-251.

CHROMOSOMAL LOCATION

Genetic locus: RBL2 (human) mapping to 16q12.2; Rbl2 (mouse) mapping to 8 C5.

SOURCE

p-p130 (Ser 966) is available as either goat (sc-16300) or rabbit (sc-16300-R) affinity purified polyclonal antibody raised against a short amino acid sequence containing Ser 966 phosphorylated p130 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-16300 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-p130 (Ser 966) is recommended for detection of Ser 966 phosphorylated p130 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Suitable for use as control antibody for p130 siRNA (h): sc-29425, p130 siRNA (m): sc-29426, p130 shRNA Plasmid (h): sc-29425-SH, p130 shRNA Plasmid (m): sc-29426-SH, p130 shRNA (h) Lentiviral Particles: sc-29425-V and p130 shRNA (m) Lentiviral Particles: sc-29426-V.

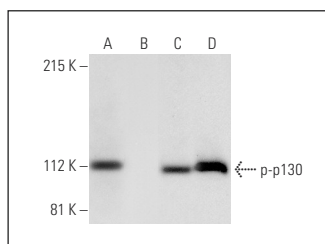
Molecular Weight of p-p130: 130 kDa.

Positive Controls: Jurkat + PMA cell lysate: sc-24718, Jurkat nuclear extract: sc-2132 or C32 nuclear extract: sc-2136.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: for goat primary antibody (sc-16300): use donkey anti-goat IgG-HRP: sc-2020 (range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (range: 1:2000-1:5000), for rabbit primary antibody (sc-16300-R): use goat anti-rabbit IgG-HRP: sc-2004 (range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunofluorescence: for goat primary antibody (sc-16300): use donkey anti-goat IgG-FITC: sc-2024 (range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (range: 1:100-1:400), for rabbit primary antibody (sc-16300-R): use goat anti-rabbit IgG-FITC: sc-2012 (range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Western blot analysis of p130 phosphorylation in untreated (A, C) and lambda protein phosphatase (sc-200312A) treated (B, D) Jurkat whole cell lysates. Antibodies tested include p-p130 (Ser 966)-R: sc-16300-R (A, B) and p130 (A-10): sc-374521 (C, D).

RESEARCH USE

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