



p130 (130P215): sc-56177

BACKGROUND

The human retinoblastoma gene product Rb plays an important role in the negative regulation of cell proliferation. The Rb family includes p107 and p130, which form complexes with E2F proteins, and share a high degree of structural homology in the adenovirus E1A binding domain (i.e., "pocket region"), which plays a primary role in the function of these proteins. The Rb family members undergo cell cycle dependent phosphorylation during mid-G1 to S phase transition, which is dependent upon the activity of cyclin D/cdk4. In contrast to pRb and p107, p130 is also 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, and these residues are clustered within a short co-linear region unique to p130 defined as the Loop.

REFERENCES

1. Kovesdi, I., et al. 1986. Identification of a cellular transcription factor involved in E1A transactivation. *Cell* 45: 219-228.
2. 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.
3. Chellappan, S., et al. 1991. The E2F transcription factor is a cellular target for the RB protein. *Cell* 65: 1053-1061.
4. Bandara, L., et al. 1991. Cyclin A and the retinoblastoma gene product complex with a common transcription factor. *Nature* 352: 249-251.
5. Kaelin, W.G. Jr., et al. 1992. Expression cloning of a cDNA encoding a retinoblastoma-binding protein with E2F-like properties. *Cell* 70: 351-364.
6. Nevins, J.R. 1992. E2F: a link between the Rb tumor suppressor protein and viral oncoproteins. *Science* 258: 424-429.
7. Helin, K., et al. 1992. A cDNA encoding a pRB-binding protein with properties of the transcription factor E2F. *Cell* 70: 337-350.
8. Mayol, X., et al. 1993. Cloning of a new member of the retinoblastoma gene family (pRb2) which binds to the E1A transforming domain. *Oncogene* 8: 2561-2566.

CHROMOSOMAL LOCATION

Genetic locus: BCAR1 (human) mapping to 16q23.1; Bcar1 (mouse) mapping to 8 D3.

SOURCE

p130 (130P215) is a mouse monoclonal antibody raised against amino acids 878-913 of p130 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

p130 (130P215) is recommended for detection of p130 of human, rat and, to a lesser extent, mouse origin by immunofluorescence and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for p130 siRNA (h): sc-29425.

Molecular Weight of p130: 130 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 2) Immunohistochemistry: use ImmunoCruz™: sc-2050 or ABC: sc-2017 mouse IgG Staining Systems.

RESEARCH USE

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

PROTOCOLS

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