

**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-G<sub>1</sub> 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 G<sub>0</sub> and the early G<sub>1</sub> phase of the cell cycle. p130 is specifically phosphorylated on serine and threonine residues in cells arrested in G<sub>0</sub> 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. Kovcsdi, 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.

**CHROMOSOMAL LOCATION**

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

**SOURCE**

p130 (211.6) is a mouse monoclonal antibody raised against full length p130 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

p130 (211.6) is recommended for detection of p130 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).

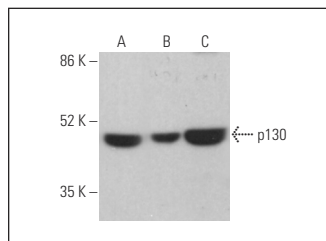
Suitable for use as control antibody for p130 siRNA (h): sc-29425, p130 siRNA (m): sc-29426, p130 shRNA Plasmid (h): sc-29425-SH, p130 shRNA Plasmid (m): sc-29426-SH, p130 shRNA (h) Lentiviral Particles: sc-29425-V and p130 shRNA (m) Lentiviral Particles: sc-29426-V.

Molecular Weight of p130: 130 kDa.

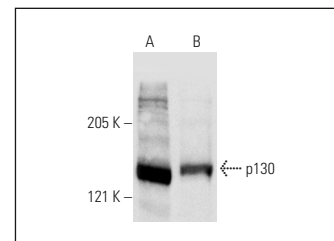
Positive Controls: Jurkat nuclear extract: sc-2132, C32 nuclear extract: sc-2136 or HEK293 whole cell lysate: sc-45136.

**STORAGE**

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

**DATA**

p130 (211.6): sc-9963. Western blot analysis of p130 expression in MDA-MB-231 (A), F9 (B) and NIH/3T3 (C) whole cell lysates.



p130 (211.6): sc-9963. Western blot analysis of p130 expression in Jurkat (A) and C32 (B) nuclear extracts.

**SELECT PRODUCT CITATIONS**

1. Chestukhin, A., et al. 2002. Nucleocytoplasmic shuttling of p130/RBL2: novel regulatory mechanism. *Mol. Cell. Biol.* 22: 453-468.
2. Klausen, P., et al. 2004. End-stage differentiation of neutrophil granulocytes *in vivo* is accompanied by up-regulation of p27<sup>kip1</sup> and down-regulation of CDK2, CDK4, and CDK6. *J. Leukoc. Biol.* 75: 569-578.
3. Leisenfelder, S.A., et al. 2006. Varicella-zoster virus infection of human foreskin fibroblast cells results in atypical cyclin expression and cyclin-dependent kinase activity. *J. Virol.* 80: 5577-5587.
4. Kong, L.J., et al. 2006. The Rb-related p130 protein controls telomere lengthening through an interaction with a Rad50-interacting protein, RINT-1. *Mol. Cell* 22: 63-71.
5. Preville, L.A., et al. 2007. Increased expression of p130 in Alzheimer disease. *Neurochem. Res.* 32: 639-644.
6. Moiseeva, O., et al. 2011. Retinoblastoma-independent regulation of cell proliferation and senescence by the p53-p21 axis in lamin A/C-depleted cells. *Aging Cell* 10: 789-797.
7. Macaluso, M., et al. 2012. Integrating role of T antigen, Rb2/p130, CTCF and BORIS in mediating non-canonical endoplasmic reticulum-dependent death pathways triggered by chronic ER stress in mouse medulloblastoma. *Cell Cycle* 11: 1841-1850.
8. Lee, H.J., et al. 2020. PI3K p110α blockade enhances anti-tumor efficacy of abemaciclib in human colorectal cancer cells. *Cancers* 12: 2500.
9. Lai, Y., et al. 2022. Peruvoside is a novel Src inhibitor that suppresses NSCLC cell growth and motility by downregulating multiple Src-EGFR-related pathways. *Am. J. Cancer Res.* 12: 2576-2593.

**RESEARCH USE**

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