

p107 (H-117): sc-8345

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.

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.
5. Helin, K., et al. 1992. A cDNA encoding a pRB-binding protein with properties of the transcription factor E2F. *Cell* 70: 337-350.
6. 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.
7. Nevins, J.R. 1992. E2F: a link between the Rb tumor suppressor protein and viral oncoproteins. *Science* 258: 424-429.
8. Lees, E., et al. 1992. Cyclin E/cdk2 and cyclin A/cdk2 kinases associate with p107 and E2F in a temporally distinct manner. *Genes Dev.* 6: 1874-1885.

CHROMOSOMAL LOCATION

Genetic locus: RBL1 (human) mapping to 20q11.23; Rbl1 (mouse) mapping to 2 H1.

SOURCE

p107 (H-117) is a rabbit polyclonal antibody raised against amino acids 374-490 mapping within an internal region of p107 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.

STORAGE

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

APPLICATIONS

p107 (H-117) is recommended for detection of p107 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).

p107 (H-117) is also recommended for detection of p107 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for p107 siRNA (h): sc-29423, p107 siRNA (m): sc-29424, p107 shRNA Plasmid (h): sc-29423-SH, p107 shRNA Plasmid (m): sc-29424-SH, p107 shRNA (h) Lentiviral Particles: sc-29423-V and p107 shRNA (m) Lentiviral Particles: sc-29424-V.

Molecular Weight of p107 isoforms: 68/121 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, SK-BR-3 cell lysate: sc-2218 or C32 whole cell lysate: sc-2205.

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 A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 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.

SELECT PRODUCT CITATIONS

1. Janig, E., et al. 2005. Interaction of stress proteins with misfolded keratins. *Eur. J. Cell Biol.* 84: 329-339.
2. Ishikawa, T., et al. 2006. Age-dependent increase of clusterin in the human pituitary gland. *Leg. Med.* 8: 28-33.

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.



Try **p107 (SD9): sc-250**, our highly recommended monoclonal alternative to p107 (H-117).