



p107 (h): 293T Lysate: sc-114727

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. Kovesdi, 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. 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.
7. Barbie, T.U., et al. 2003. Mullerian Inhibiting Substance inhibits cervical cancer cell growth via a pathway involving p130 and p107. *Proc. Natl. Acad. Sci. USA* 100: 15601-15606.
8. Rodier, G., et al. 2005. p107 inhibits G₁ to S phase progression by down-regulating expression of the F-box protein Skp2. *J. Cell Biol.* 168: 55-66.
9. Lehmann, B.D., et al. 2008. Distinct roles for p107 and p130 in Rb-independent cellular senescence. *Cell Cycle* 7: 1262-1268.

CHROMOSOMAL LOCATION

Genetic locus: RBL1 (human) mapping to 20q11.23.

PRODUCT

p107 (h): 293T Lysate represents a lysate of human p107 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

p107 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive p107 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

PROTOCOLS

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