

# p107 (C-18): sc-318

## 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

p107 (C-18) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of p107 of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-318 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-318 X, 200 µg/0.1 ml; and as agarose conjugate for immunoprecipitation, sc-318 AC, 500 µg/0.25 ml agarose in 1 ml.

## APPLICATIONS

p107 (C-18) 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), immunohistochemistry (including paraffin-embedded sections) (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 (C-18) is also recommended for detection of p107 in additional species, including equine, canine, bovine, porcine and avian.

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.

p107 (C-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

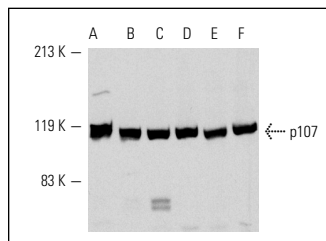
Molecular Weight of p107 isoforms: 68/121 kDa.

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

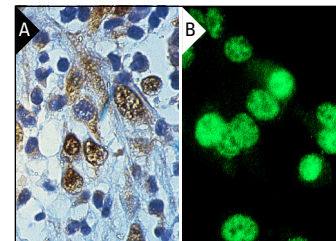
## STORAGE

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

## DATA



p107 (C-18): sc-318. Western blot analysis of p107 expression in SK-BR-3 (A), C32 (B), NIH/3T3 (C), MM-142 (D), KNRK (E) and 3611-RF (F) whole cell lysates.



p107 (C-18): sc-318. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human colon carcinoma tissue showing nuclear localization (A). Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing nuclear localization (B).

## SELECT PRODUCT CITATIONS

1. Le Cam, L., et al. 1999. Timing of cyclin E gene expression depends on the regulated association of a bipartite repressor element with a novel E2F complex. *EMBO J.* 18: 1878-1890.
2. Wang, X., et al. 2011. Unexpected reduction of skin tumorigenesis on expression of cyclin-dependent kinase 6 in mouse epidermis. *Am. J. Pathol.* 178: 345-354.
3. Böhlig, L., et al. 2011. p53 activates the PANK1/miRNA-107 gene leading to downregulation of CDK6 and p130 cell cycle proteins. *Nucleic Acids Res.* 39: 440-453.
4. Costa, C., et al. 2012. E2F1 loss induces spontaneous tumour development in Rb-deficient epidermis. *Oncogene* 32: 2937-2951.
5. Pickard, A., et al. 2012. Regulation of epithelial differentiation and proliferation by the stroma: a role for the retinoblastoma protein. *J. Invest. Dermatol.* 132: 2691-2699.
6. Jiang, J., et al. 2012. Androgens repress expression of the F-box protein Skp2 via p107 dependent and independent mechanisms in LNCaP prostate cancer cells. *Prostate* 72: 225-232.
7. Namkung, J., et al. 2012. Mullerian inhibiting substance induces apoptosis of human endometrial stromal cells in endometriosis. *J. Clin. Endocrinol. Metab.* 97: 3224-3230.

## RESEARCH USE

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



Try **p107 (SD9): sc-250**, our highly recommended monoclonal alternative to p107 (C-18).