

p18 INK4C (118.2): sc-9965

BACKGROUND

p18 INK4C Antibody (118.2) is a high quality monoclonal p18 INK4C antibody (also designated CDKN2C antibody, p18 antibody, CDKN6 antibody or p18-INK4c antibody) suitable for the detection of the p18 INK4C protein of mouse, rat and human origin. p18 INK4C Antibody (118.2) is available as both the non-conjugated anti-p18 INK4C antibody form, as well as multiple conjugated forms of anti-p18 INK4C antibody, including agarose, HRP, PE, FITC and multiple Alexa Fluor® conjugates. The normal progression of cells through the cell cycle is under the control of the cyclin dependent protein kinases Cdk4 and Cdk6, which are subject to inhibition by the mitotic inhibitory protein p16 INK4A. Isolated members of the p16 INK4A family have been designated p15 INK4B and p18 INK4C. p15 INK4B expression is upregulated approximately 30-fold in TGFβ-treated human keratinocytes. The gene encoding p15 INK4B has been mapped to chromosome 9p21.3 at a position adjacent to the p16 INK4A gene, at a site of frequent chromosomal abnormality in human tumors. It has been suggested that p15 may function as an effector of TGFβ-mediated cell cycle arrest through inhibition of Cdk4 and Cdk6 kinase. The second p16-related protein, p18 INK4C, interacts strongly with Cdk6 and to a lesser extent with Cdk4, but lacks apparent interaction with other Cdk. Recombinant p18 INK4C has been shown to inhibit cyclin D-Cdk6 kinase activity. In contrast to p21 Waf1/Cip1/p27 that form ternary complexes with cyclin-Cdks, only binary complexes of p15 INK4B, p16 INK4A and p18 INK4C have been identified in association with Cdk4 and/or Cdk6.

CHROMOSOMAL LOCATION

Genetic locus: CDKN2C (human) mapping to 1p32.3; Cdkn2c (mouse) mapping to 4 C7.

SOURCE

p18 INK4C (118.2) is a mouse monoclonal antibody raised against full length p18 INK4C of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

p18 INK4C (118.2) is available conjugated to agarose (sc-9965 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-9965 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-9965 PE), fluorescein (sc-9965 FITC), Alexa Fluor® 488 (sc-9965 AF488), Alexa Fluor® 546 (sc-9965 AF546), Alexa Fluor® 594 (sc-9965 AF594) or Alexa Fluor® 647 (sc-9965 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-9965 AF680) or Alexa Fluor® 790 (sc-9965 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

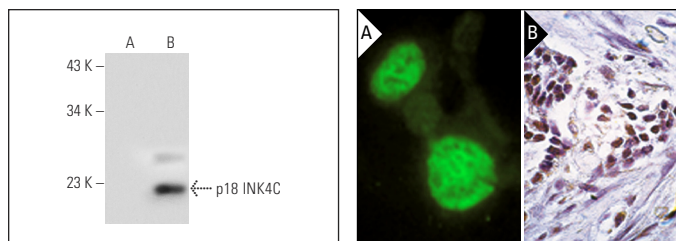
p18 INK4C (118.2) is recommended for detection of p18 INK4C of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution 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).

Suitable for use as control antibody for p18 INK4C siRNA (h): sc-36145, p18 INK4C siRNA (m): sc-36146, p18 INK4C shRNA Plasmid (h): sc-36145-SH, p18 INK4C shRNA Plasmid (m): sc-36146-SH, p18 INK4C shRNA (h) Lentiviral Particles: sc-36145-V and p18 INK4C shRNA (m) Lentiviral Particles: sc-36146-V.

Molecular Weight of p18 INK4C: 18 kDa.

Positive Controls: p18 INK4C (h): 293T Lysate: sc-174498 or COLO 320DM cell lysate: sc-2226.

DATA



p18 INK4C (118.2): sc-9965. Western blot analysis of p18 INK4C expression in non-transfected: sc-117752 (A) and human p18 INK4C transfected: sc-174498 (B) 293T whole cell lysates.

p18 INK4C (118.2): sc-9965. Immunofluorescence staining of methanol-fixed C32 cells showing nuclear localization of p18 INK4C (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma showing nuclear localization of p18 INK4C in selected cells (B).

SELECT PRODUCT CITATIONS

- Rumi, M.A., et al. 2001. Peroxisome proliferator-activated receptor γ ligand-induced growth inhibition of human hepatocellular carcinoma. *Br. J. Cancer* 84: 1640-1647.
- Esteras, N., et al. 2015. G₁/S cell cycle checkpoint dysfunction in lymphoblasts from sporadic Parkinson's disease patients. *Mol. Neurobiol.* 52: 386-398.
- Uxa, S., et al. 2019. DREAM and RB cooperate to induce gene repression and cell-cycle arrest in response to p53 activation. *Nucleic Acids Res.* 47: 9087-9103.
- Wu, X., et al. 2021. Distinct CDK6 complexes determine tumor cell response to CDK4/6 inhibitors and degraders. *Nat. Cancer* 2: 429-443.

RESEARCH USE

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

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