

Skp1 p19 (H-6): sc-5281

BACKGROUND

The critical role that the family of regulatory proteins known as cyclins plays in eukaryotic cell cycle regulation is well established. The best characterized cyclin complex is the mitotic cyclin B/Cdc2 p34 kinase, the active component of MPF (maturation promoting factor). Cyclin A accumulates prior to cyclin B in the cell cycle, appears to be involved in control of S phase and has been shown to associate with cyclin dependent kinase-2 (Cdk2). In addition, cyclin A has been implicated in cell transformation and is found in complexes with E1A, transcription factors DP-1 and E2F and retinoblastoma protein p110. Two cyclin A-Cdk2 complex binding proteins, Skp1 p19 and Skp2 p45, have been described. Although the Skps (S phase kinase-associated proteins) associate with the active cyclin A-Cdk2 complex, they do not exhibit any regulatory effects on the complex. Abolition of Skp2 p45 function by either microinjection of anti-p45 antibodies or addition of antisense oligonucleotides prevents entry into S phase of both normal and transformed cells.

REFERENCES

1. Draetta, G., et al. 1989. Cdc2 protein kinase is complexed with both cyclin A and B: evidence for proteolytic inactivation of MPF. *Cell* 56: 829-838.
2. Giordano, A., et al. 1989. A 60 kd Cdc2-associated polypeptide complexes with the E1A proteins in adenovirus-infected cells. *Cell* 58: 981-990.
3. Wang, J., et al. 1990. Hepatitis B virus integration in a cyclin A gene in a hepatocellular carcinoma. *Nature* 343: 555-557.

CHROMOSOMAL LOCATION

Genetic locus: SKP1 (human) mapping to 5q31.1; Skp1a (mouse) mapping to 11 B1.3.

SOURCE

Skp1 p19 (H-6) is a mouse monoclonal antibody raised against amino acids 1-163 of Skp1 p19 of human origin.

PRODUCT

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

Skp1 p19 (H-6) is available conjugated to agarose (sc-5281 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to either phycoerythrin (sc-5281 PE), fluorescein (sc-5281 FITC), Alexa Fluor® 488 (sc-5281 AF488), Alexa Fluor® 546 (sc-5281 AF546), Alexa Fluor® 594 (sc-5281 AF594) or Alexa Fluor® 647 (sc-5281 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-5281 AF680) or Alexa Fluor® 790 (sc-5281 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, Skp1 p19 (H-6) is available conjugated to TRITC (sc-5281 TRITC, 200 µg/ml), for IF, IHC(P) and FCM.

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STORAGE

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

APPLICATIONS

Skp1 p19 (H-6) is recommended for detection of Skp1 p19 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).

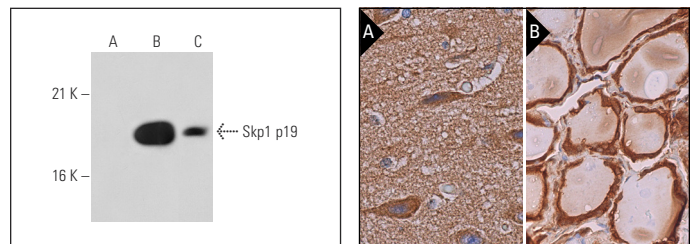
Skp1 p19 (H-6) is also recommended for detection of Skp1 p19 in additional species, including equine, bovine and avian.

Suitable for use as control antibody for Skp1 p19 siRNA (h): sc-29482, Skp1 p19 siRNA (m): sc-36498, Skp1 p19 shRNA Plasmid (h): sc-29482-SH, Skp1 p19 shRNA Plasmid (m): sc-36498-SH, Skp1 p19 shRNA (h) Lentiviral Particles: sc-29482-V and Skp1 p19 shRNA (m) Lentiviral Particles: sc-36498-V.

Molecular Weight of Skp1 p19: 19 kDa.

Positive Controls: Skp1 p19 (h): 293T Lysate: sc-114049, A-431 nuclear extract: sc-2122 or A-431 whole cell lysate: sc-2201.

DATA



Skp1 p19 (H-6): sc-5281. Western blot analysis of Skp1 p19 expression in non-transfected: sc-117752 (A) and human Skp1 p19 transfected: sc-114049 (B) 293T whole cell lysates and A-431 nuclear extract (C).

Skp1 p19 (H-6): sc-5281. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebral cortex tissue showing cytoplasmic staining of neuronal cells and neuropil staining (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human thyroid gland tissue showing nuclear and cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

1. Chew, E.H., et al. 2007. Characterization of Cullin-based E3 ubiquitin ligases in intact mammalian cells — evidence for Cullin dimerization. *Cell. Signal.* 19: 1071-1080.
2. Cruz-Bermúdez, A., et al. 2015. Enhanced tumorigenicity by mitochondrial DNA mild mutations. *Oncotarget* 6: 13628-13643.
3. Liu, R., et al. 2018. Vaccinia virus C9 ankyrin-repeat/F-box protein is a newly identified antagonist of the type I interferon-induced antiviral state. *J. Virol.* 92: e00053-18.
4. Paul, D., et al. 2019. F-box protein FBXO16 functions as a tumor suppressor by attenuating nuclear β-catenin function. *J. Pathol.* 248: 266-279.

RESEARCH USE

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