

CKIP-1 (A-3): sc-376060

BACKGROUND

Casein Kinase II-interacting protein 1 (CKIP-1), also designated pleckstrin homology domain containing family O member 1 (PLEKH01), is a 409-amino acid protein with an N-terminal pleckstrin homology domain and a putative C-terminal JUN leucine zipper interactive domain. CKIP-1 is expressed at the highest levels in skeletal muscle and heart, intermediately in placenta, lung and brain, and at the weakest levels in pancreas, liver and kidney. CKIP-1 localizes to the plasma membrane of transfected COS-7 cells and also to the plasma membrane and the nucleus in human osteosarcoma cells. It interacts with the N terminus of CSNK2A1 and with full length CSNK2A1, but not with CSNK2A2 or CSNK2B.

REFERENCES

- Bosc, D.G., et al. 2000. Identification and characterization of CKIP-1, a novel pleckstrin homology domain-containing protein that interacts with protein kinase CK2. *J. Biol. Chem.* 275: 14295-14306.
- Olsten, M.E., et al. 2004. The Pleckstrin homology domain of CK2 interacting protein-1 is required for interactions and recruitment of protein kinase CK2 to the plasma membrane. *J. Biol. Chem.* 279: 42114-42127.
- Barrios-Rodiles, M., et al. 2005. High-throughput mapping of a dynamic signaling network in mammalian cells. *Science* 307: 1621-1625.
- Canton, D.A., et al. 2005. The pleckstrin homology domain-containing protein CKIP-1 is involved in regulation of cell morphology and the Actin cytoskeleton and interaction with actin capping protein. *Mol. Cell. Biol.* 25: 3519-3534.
- Zhang, L., et al. 2005. Role for the pleckstrin homology domain-containing protein CKIP-1 in AP-1 regulation and apoptosis. *EMBO J.* 24: 766-778.
- Lim, J., et al. 2006. A protein-protein interaction network for human inherited ataxias and disorders of Purkinje cell degeneration. *Cell* 125: 801-814.

CHROMOSOMAL LOCATION

Genetic locus: PLEKH01 (human) mapping to 1q21.2; Plekho1 (mouse) mapping to 3 F2.1.

SOURCE

CKIP-1 (A-3) is a mouse monoclonal antibody raised against amino acids 170-409 mapping at the C-terminus of CKIP-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain 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.

RESEARCH USE

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

APPLICATIONS

CKIP-1 (A-3) is recommended for detection of CKIP-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 CKIP-1 siRNA (h): sc-60389, CKIP-1 siRNA (m): sc-60390, CKIP-1 shRNA Plasmid (h): sc-60389-SH, CKIP-1 shRNA Plasmid (m): sc-60390-SH, CKIP-1 shRNA (h) Lentiviral Particles: sc-60389-V and CKIP-1 shRNA (m) Lentiviral Particles: sc-60390-V.

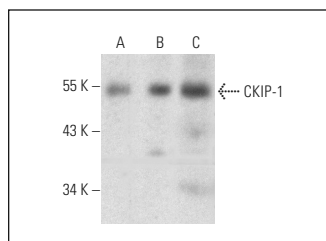
Molecular Weight of CKIP-1: 50 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, NIH/3T3 whole cell lysate: sc-2210 or AT-3 whole cell lysate.

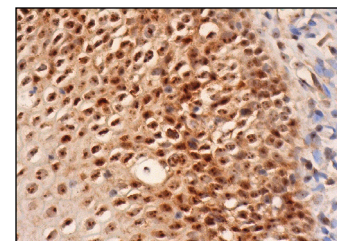
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



CKIP-1 (A-3): sc-376060. Western blot analysis of CKIP-1 expression in RAW 264.7 (A), NIH/3T3 (B) and AT-3 (C) whole cell lysates.



CKIP-1 (A-3): sc-376060. Immunoperoxidase staining of formalin fixed, paraffin-embedded human tonsil tissue showing nucleolar and cytoplasmic staining of squamous epithelial cells.

SELECT PRODUCT CITATIONS

- Xu, G., et al. 2021. The construction of a novel xenograft bovine bone scaffold, (DSS)6-liposome/CKIP-1 siRNA/calcine bone and its osteogenesis evaluation on skull defect in rats. *J. Orthop. Translat.* 28: 74-82.

PROTOCOLS

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