

CKIP-1 (A-12): sc-376355

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.

CHROMOSOMAL LOCATION

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

SOURCE

CKIP-1 (A-12) 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 IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CKIP-1 (A-12) is available conjugated to agarose (sc-376355 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376355 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376355 PE), fluorescein (sc-376355 FITC), Alexa Fluor® 488 (sc-376355 AF488), Alexa Fluor® 546 (sc-376355 AF546), Alexa Fluor® 594 (sc-376355 AF594) or Alexa Fluor® 647 (sc-376355 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376355 AF680) or Alexa Fluor® 790 (sc-376355 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

CKIP-1 (A-12) 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.

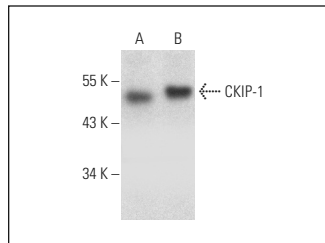
Molecular Weight of CKIP-1: 50 kDa.

Positive Controls: MOLT-4 cell lysate: sc-2233 or NIH/3T3 whole cell lysate: sc-2210.

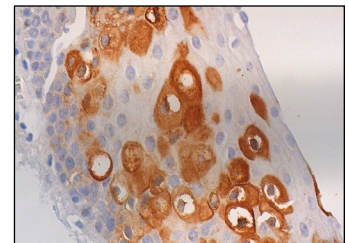
RECOMMENDED SUPPORT REAGENTS

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-12): sc-376355. Western blot analysis of CKIP-1 expression in MOLT-4 (A) and NIH/3T3 (B) whole cell lysates.



CKIP-1 (A-12): sc-376355. Immunoperoxidase staining of formalin fixed, paraffin-embedded human tonsil tissue showing cytoplasmic and membrane staining of cells in germinal centers.

SELECT PRODUCT CITATIONS

- Liu, Q., et al. 2018. MiR-98-5p promotes osteoblast differentiation in MC3T3-E1 cells by targeting CKIP-1. *Mol. Med. Rep.* 17: 4797-4802.
- Paidikondala, M., et al. 2019. Insights into siRNA transfection in suspension: efficient gene silencing in human mesenchymal stem cells encapsulated in hyaluronic acid hydrogel. *Biomacromolecules* 20: 1317-1324.
- Jia, Q., et al. 2019. Fisetin, via CKIP-1/REGγ, limits oxidized LDL-induced lipid accumulation and senescence in RAW264.7 macrophage-derived foam cells. *Eur. J. Pharmacol.* 865: 172748.
- Yang, Y., et al. 2021. CKIP-1 acts downstream to Cx43 on the activation of Nrf2 signaling pathway to protect from renal fibrosis in diabetes. *Pharmacol. Res.* 163: 105333.
- Yuan, Y., et al. 2022. The effect of QiangGuYin on osteoporosis through the AKT/mTOR/autophagy signaling pathway mediated by CKIP-1. *Aging* 14: 892-906.
- Yang, Y., et al. 2022. The ubiquitination of CKIP-1 mediated by Src aggravates diabetic renal fibrosis (original article). *Biochem. Pharmacol.* 206: 115339.

STORAGE

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

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