

Ajuba (E-3): sc-374610

BACKGROUND

The LIM protein Ajuba (JUB), a member of the Zyxin family, mediates various cellular events. Ajuba is a component of the IL-1 signaling pathway modulating IL-1-induced NF κ B activation by influencing the assembly and activity of the aPKC/p62/TRAF6 multiprotein signaling complex. Ajuba also plays a role in cadherin-mediated cell-cell adhesion and influences cell migration by regulating PI(4,5)P₂ synthesis through direct activation of PIPK1 α activity. Differentiating mouse embryonic stem cells show elevated Ajuba transcription. In adult mouse tissues, Ajuba is present in skin, brain and genitourinary organs. Immunofluorescence analysis of unsynchronized HeLa cells shows cytoplasmic staining. In cells synchronized at G₂/M, Ajuba localizes to the centrosome, where it complexes with LATS2 to regulate the organization of the spindle apparatus through recruitment of γ Tubulin.

REFERENCES

1. Goyal, R.K., et al. 1999. Ajuba, a novel LIM protein, interacts with GRB2, augments mitogen-activated protein kinase activity in fibroblasts and promotes meiotic maturation of *Xenopus* oocytes in a GRB2- and Ras-dependent manner. *Mol. Cell. Biol.* 19: 4379-4389.
2. Marie, H., et al. 2002. The amino-terminus of the glial glutamate transporter GLT-1 interacts with the LIM protein Ajuba. *Mol. Cell. Neurosci.* 19: 152-164.

CHROMOSOMAL LOCATION

Genetic locus: AJUBA (human) mapping to 14q11.2; Ajuba (mouse) mapping to 14 C3.

SOURCE

Ajuba (E-3) is a mouse monoclonal antibody raised against amino acids 176-330 mapping within an internal region of Ajuba of human origin.

PRODUCT

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

APPLICATIONS

Ajuba (E-3) is recommended for detection of Ajuba of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (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 Ajuba siRNA (h): sc-60066, Ajuba siRNA (m): sc-60067, Ajuba shRNA Plasmid (h): sc-60066-SH, Ajuba shRNA Plasmid (m): sc-60067-SH, Ajuba shRNA (h) Lentiviral Particles: sc-60066-V and Ajuba shRNA (m) Lentiviral Particles: sc-60067-V.

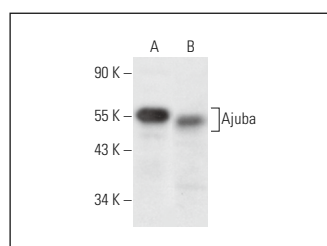
Molecular Weight of Ajuba: 55-60 kDa.

Positive Controls: Caco-2 cell lysate: sc-2262 or Hep G2 cell lysate: sc-2227.

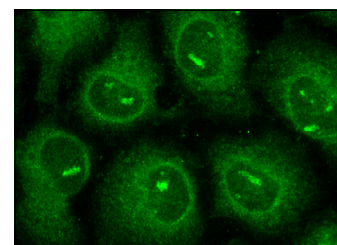
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Ajuba (E-3): sc-374610. Western blot analysis of Ajuba expression in Hep G2 (A) and Caco-2 (B) whole cell lysates.



Ajuba (E-3): sc-374610. Immunofluorescence staining of methanol-fixed HeLa cells showing nucleolar and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Tanaka, I., et al. 2015. LIM-domain protein Ajuba suppresses malignant mesothelioma cell proliferation via Hippo signaling cascade. *Oncogene* 34: 73-83.
2. Chiu, S.C., et al. 2019. Overexpression of Aurora-A bypasses cytokinesis through phosphorylation of SLAN. *Am. J. Physiol., Cell Physiol.* 317: C600-C612.
3. Ponia, S.S., et al. 2021. Mitophagy antagonism by ZIKV reveals Ajuba as a regulator of PINK1 signaling, PKR-dependent inflammation, and viral invasion of tissues. *Cell Rep.* 37: 109888.
4. Yan, H., et al. 2022. Ajuba functions as a co-activator of C/EBP β to induce expression of PPAR γ and C/EBP α during adipogenesis. *Mol. Cell. Endocrinol.* 539: 111485.
5. Chiu, S.C., et al. 2023. The crescent-like Golgi ribbon is shaped by the Ajuba/PRMT5/Aurora-A complex-modified HURP. *Cell Commun. Signal.* 21: 156.

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.