

Ajuba (F-11): sc-514026

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 α PKC/p62/TRAF6 multiprotein signaling complex. Ajuba also plays a role in cadherin-mediated cell-cell adhesion and influences cell migration by regulating PIP2 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

- 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.
- 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.
- Marie, H., et al. 2003. The LIM protein Ajuba is recruited to cadherin-dependent cell junctions through an association with α -catenin. *J. Biol. Chem.* 278: 1220-1228.
- Benzinger, A., et al. 2005. Targeted proteomic analysis of 14-3-3 σ , a p53 effector commonly silenced in cancer. *Mol. Cell. Proteomics* 4: 785-795.
- Pratt, S.J., et al. 2005. The LIM protein Ajuba influences p130^{Cas} localization and Rac1 activity during cell migration. *J. Cell Biol.* 168: 813-824.
- Petit, M.M., et al. 2005. The tumor suppressor Scrib interacts with the zyxin-related protein LPP, which shuttles between cell adhesion sites and the nucleus. *BMC Cell Biol.* 6: 1.

CHROMOSOMAL LOCATION

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

SOURCE

Ajuba (F-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 224-243 within an internal region of Ajuba of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-514026 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Ajuba (F-11) 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.

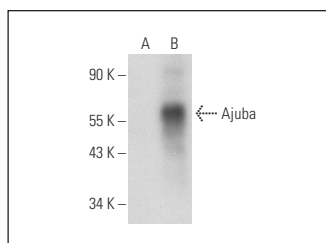
Molecular Weight of Ajuba: 55-60 kDa.

Positive Controls: Ajuba (h2): 293T Lysate: sc-170504.

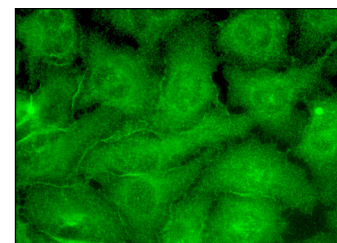
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Ajuba (F-11): sc-514026. Western blot analysis of Ajuba expression in non-transfected: sc-117752 (A) and human Ajuba transfected: sc-170504 (B) 293T whole cell lysates.



Ajuba (F-11): sc-514026. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane, cytoplasmic and nuclear localization.

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.

PROTOCOLS

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