3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Product Information

Anti-JUB (N-terminal)

produced in rabbit, affinity isolated antibody

Product Number SAB4200052

Product Description

Anti-JUB (N-terminal) is produced in rabbit using as the immunogen a synthetic peptide corresponding to a sequence at the N-terminal of human JUB (GenelD 84962), conjugated to KLH. The corresponding sequence is highly conserved (80% identity) in mouse and rat JUB. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-JUB (N-terminal) specifically recognizes human and mouse JUB. The antibody can be used in several immunochemical techniques including immunoblotting (~57 kDa) and immunofluorescence. Detection of the JUB band by immunoblotting is specifically inhibited by the JUB immunizing peptide.

Cell-cell adhesive events are important for tissue morphogenesis, affecting cell fate determination, regulation of cell proliferation and differentiation, remodeling of the cell cytoskeleton, and providing spatial clues for cell polarity within tissues during development. JUB (also known as Ajuba), is a member of the zyxin family of cytosolic LIM proteins. JUB mediates various cellular events. It plays a role in cadherin-mediated cell-cell adhesion and in cell migration. JUB is recruited to cadherin complexes through interaction with $\alpha\text{-catenin.}^1$

JUB also influences the localization of p130Cas at focal adhesions and Rac1 activity during cell migration. JUB is expressed in skin, kidney, liver, lung, and genitourinary organs. Differentiating mouse embryonic stem cells show elevated JUB transcription and localization at cell-cell contacts. JUB has been shown to shuttle between the cytoplasm and the nucleus to affect embryonal cell proliferation. JUB interacts with and activates Aurora-A and is required for mitotic commitment in human cells. In unsynchronized HeLa cells JUB shows cytoplasmic localization. In HeLa cells synchronized at G_2/M , JUB localizes to the centrosome, where it complexes with LATS2 to regulate the organization of the spindle apparatus through recruitment of γ -tubulin. 6

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Antibody concentration: ~1.5 mg/mL

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at –20 °C. For continuous use, the product may be stored at 2–8 °C for up to one month. For extended storage, freeze in working aliquots at –20 °C. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working antibody concentration of 1-2 μ g/mL is recommended using HeLa cell lysates.

Immunofluorescence: a working antibody concentration of 7.5-15 μ g/mL is recommended using P19 cells.

<u>Note</u>: In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration.

References

- 1. Marie, H. et al., *J. Biol. Chem.*, **278**, 1220-1228 (2003).
- 2. Pratt, J.S. et al., J. Cell Biol., 168, 813-824 (2005).
- Kisseleva, M. et al., Mol. Cell. Biol., 25, 3956-3966 (2005).
- 4. Kanungo, J. et al., *Mol. Biol. Cell*, **11**, 3299-3313 (2000).
- 5. Hirota, S. et al, *Cell*, **114**, 585-598 (2003).
- 6. Abe, Y. et al., FEBS Lett., 580, 782-788 (2006).

VS,ER,TD,KAA,PHC,MAM 06/19-1