SANTA CRUZ BIOTECHNOLOGY, INC.

β-parvin (P-18): sc-50775

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The parvin family, including α-parvin, β-parvin and γ-parvin, link integrins and associated proteins with intracellular pathways, which regulate Actin cytoskeletal dynamics and cell survival. All three family members localize to focal adhesions and function in cell adhesion, spreading, motility and survival through interactions with partners, such as integrin-linked kinase (ILK), paxillin, α-actinin and testicular kinase 1. α-parvin is widely expressed, with highest levels detected in the skeletal muscle, heart, liver and kidney. A complex made up of α-parvin, ILK and the LIM protein Pinch-1 is critical for cell survival in a variety of cells, including certain cancer cells, kidney podocytes and cardiac myocytes. β-parvin links initial integrin signals to rapid Actin reorganization, thereby playing a critical role in fibroblast migration. The ILK-γ-parvin complex is essential for the establishment of cell polarity required for leukocyte migration.

REFERENCES

1. Tu, Y., et al. 2001. A new focal adhesion protein that interacts with integrin-linked kinase and regulates cell adhesion and spreading. J. Cell Biol. 153: 585-598.
2. Olski, T.M., et al. 2001. Parvin, a 42 kDa focal adhesion protein, related to the α-actinin superfamily. J. Cell Sci. 114: 525-538.
3. Korenbaum, E., et al. 2001. Genomic organization and expression profile of the parvin family of focal adhesion proteins in mice and humans. Gene 279: 69-79.
4. Aboulaich, N., et al. 2004. Vectorial proteomics reveal targeting, phosphorylation and specific fragmentation of polymerase I and transcript release factor (PTRF) at the surface of caveolae in human adipocytes. Biochem. J. 383: 237-248.
5. Yamaji, S., et al. 2004. Affixin interacts with α-actinin and mediates integrin signaling for reorganization of F-Actin induced by initial cell-substrate interaction. J. Cell Biol. 165: 539-551.
6. Zhang, Y., et al. 2004. Distinct roles of two structurally closely related focal adhesion proteins, α-parvins and β-parvins, in regulation of cell morphology and survival. J. Biol. Chem. 279: 41695-41705.
7. Filipenko, N.R., et al. 2005. Integrin-linked kinase activity regulates Rac- and Cdc42-mediated Actin cytoskeleton reorganization via α-PIX. Oncogene 24: 5837-5849.

CHROMOSOMAL LOCATION

Genetic locus: PARVB (human) mapping to 22q13.31; Parvb (mouse) mapping to 15 E2.

SOURCE

β-parvin (P-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of β-parvin of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-50775 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

β-parvin (P-18) is recommended for detection of β-parvin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

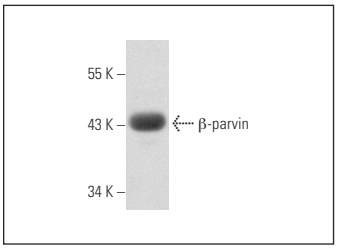
β-parvin (P-18) is also recommended for detection of β-parvin in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for β-parvin siRNA (h): sc-61301, β-parvin siRNA (m): sc-61303, β-parvin shRNA Plasmid (h): sc-61301-SH, β-parvin shRNA Plasmid (m): sc-61303-SH, β-parvin shRNA (h) Lentiviral Particles: sc-61301-V and β-parvin shRNA (m) Lentiviral Particles: sc-61303-V.

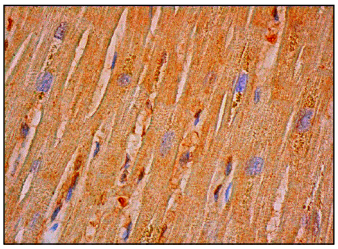
Molecular Weight of β-parvin: 42 kDa.

Postive Controls: mouse skeletal muscle extract: sc-364250.

DATA



β-parvin (P-18): sc-50775. Western blot analysis of β-parvin expression in mouse skeletal muscle tissue extract.



β-parvin (P-18): sc-50775. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

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.