SANTA CRUZ BIOTECHNOLOGY, INC.

β-parvin (H-45): sc-134832

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 skeletal muscle, heart, liver and kidney. A complex composed 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. 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.
2. 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.
3. 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.
4. 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.
5. 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.
6. Matsuda, C., et al. 2005. Dysferlin interacts with affixin (β-parvin) at the sarcolemma. J. Neuropathol. Exp. Neurol. 64: 334-340.

CHROMOSOMAL LOCATION

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

SOURCE

β-parvin (H-45) is a rabbit polyclonal antibody raised against amino acids 197-241 mapping within an internal region of β-parvin of human origin.

PRODUCT

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

STORAGE

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

APPLICATIONS

β-parvin (H-45) 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 (H-45) is also recommended for detection of β-parvin in additional species, including equine, canine, bovine, porcine 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.

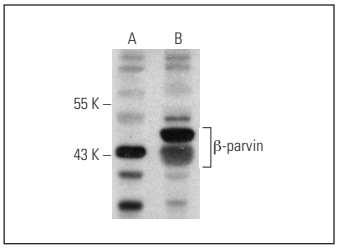
Molecular Weight of β-parvin: 42 kDa.

Positive Controls: mouse skeletal muscle extract: sc-364250 or mouse liver extract: sc-2256.

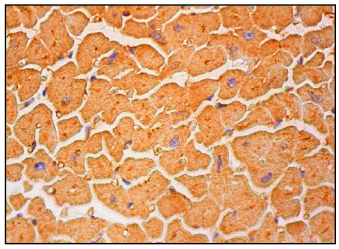
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



β-parvin (H-45): sc-134832. Western blot analysis of β-parvin expression in mouse liver (**A**) and mouse skeletal muscle (**B**) tissue extracts.



β-parvin (H-45): sc-134832. 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.