

# $\alpha$ -parvin (N-12): sc-50693

## BACKGROUND

The parvin family, including  $\alpha$ -parvin,  $\beta$ -parvin and  $\gamma$ -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,  $\alpha$ -actinin and testicular kinase 1.  $\alpha$ -parvin is widely expressed, with highest levels detected in the skeletal muscle, heart, liver and kidney. A complex made up of  $\alpha$ -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.  $\beta$ -parvin links initial integrin signals to rapid Actin reorganization, thereby playing a critical role in fibroblast migration. The ILK- $\gamma$ -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  $\alpha$ -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  $\alpha$ -actinin and mediates integrin signaling for reorganization of F-Actin induced by initial cell-substrate interaction. *J. Cell Biol.* 165: 539-551.

## CHROMOSOMAL LOCATION

Genetic locus: PARVA (human) mapping to 11p15.3; Parva (mouse) mapping to 7 F1.

## SOURCE

$\alpha$ -parvin (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of  $\alpha$ -parvin of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-50693 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

$\alpha$ -parvin (N-12) is recommended for detection of  $\alpha$ -parvin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

$\alpha$ -parvin (N-12) is also recommended for detection of  $\alpha$ -parvin in additional species, including bovine.

Suitable for use as control antibody for  $\alpha$ -parvin siRNA (h): sc-60107,  $\alpha$ -parvin siRNA (m): sc-60108,  $\alpha$ -parvin shRNA Plasmid (h): sc-60107-SH,  $\alpha$ -parvin shRNA Plasmid (m): sc-60108-SH,  $\alpha$ -parvin shRNA (h) Lentiviral Particles: sc-60107-V and  $\alpha$ -parvin shRNA (m) Lentiviral Particles: sc-60108-V.

Molecular Weight (predicted) of  $\alpha$ -parvin: 42 kDa.

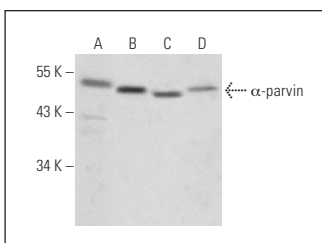
Molecular Weight (observed) of  $\alpha$ -parvin: 51 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, MCF7 whole cell lysate: sc-2206 or A549 cell lysate: sc-2413.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



$\alpha$ -parvin (N-12): sc-50693. Western blot analysis of  $\alpha$ -parvin expression in A549 (A), U-251-MG (B), NIH/3T3 (C) and MCF7 (D) whole cell lysates.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.