SANTA CRUZ BIOTECHNOLOGY, INC.

PARD3A (T-17): sc-79577

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Cellular asymmetry is critical for the development of multicellular organisms. PARD (partitioning-defective) proteins play important roles in asymmetric cell division and polarized growth. PARD3A (partitioning-defective 3), also known as Baz, ASIP (atypical PKC isotype-specific-interacting protein), PAR3, PARD3, PAR3α, Bazooka, SE2-5T2, SE2-5L16 or SE2-5LT1, is a 1,356 amino acid protein that contains 3 PDZ domains and belongs to the PAR3 family of proteins. Expressed in a wide variety of tissues, PARD3A colocalizes with PARD6A/B and PKC ι at epithelial tight junctions and is believed to function as an adapter protein with an important role in the formation of normal tight junctions at epithelial cell-cell contacts. Due to alternative splicing events, PARD3A exists in at least ten isoforms, namely isoform A, isoform B, isoform C, isoform D, isoform E, isoform F, isoform Lb, isoform Sa, isoform Sb and isoform 10.

REFERENCES

1. Joberty, G., et al. 2000. The cell-polarity protein Par6 links Par3 and atypical protein kinase C to Cdc42. Nat. Cell Biol. 2: 531-539.
2. Suzuki, A., et al. 2001. Atypical protein kinase C is involved in the evolutionarily conserved par protein complex and plays a critical role in establishing epithelia-specific junctional structures. J. Cell Biol. 152: 1183-1196.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606745. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Shi, S.H., et al. 2003. Hippocampal neuronal polarity specified by spatially localized mPar3/mPar6 and PI 3-kinase activity. Cell 112: 63-75.
5. Iden, S., et al. 2006. A distinct PAR complex associates physically with VE-cadherin in vertebrate endothelial cells. EMBO Rep. 7: 1239-1246.
6. Chan, J.R., et al. 2006. The polarity protein Par-3 directly interacts with p75NTR to regulate myelination. Science 314: 832-836.

CHROMOSOMAL LOCATION

Genetic locus: PARD3 (human) mapping to 10p11.21; Pard3 (mouse) mapping to 8 E2.

SOURCE

PARD3A (T-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PARD3A 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.

Blocking peptide available for competition studies, sc-79577 P, (100 µg 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

PARD3A (T-17) is recommended for detection of PARD3A 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PARD3A (T-17) is also recommended for detection of PARD3A in additional species, including equine, canine and bovine.

Suitable for use as control antibody for PARD3A siRNA (h): sc-76048, PARD3A siRNA (m): sc-76049, PARD3A shRNA Plasmid (h): sc-76048-SH, PARD3A shRNA Plasmid (m): sc-76049-SH, PARD3A shRNA (h) Lentiviral Particles: sc-76048-V and PARD3A shRNA (m) Lentiviral Particles: sc-76049-V.

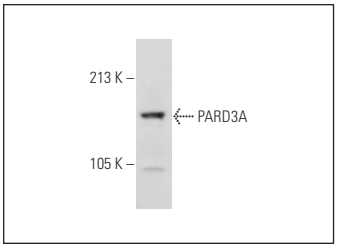
Molecular Weight of PARD3A: 150 kDa.

Positive Controls: U-251-MG whole cell lysate: sc-364176.

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



PARD3A (T-17): sc-79577. Western blot analysis of PARD3A expression in U-251-MG whole cell lysate.

RESEARCH USE

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