

PAR3B (N-15): sc-168900

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. PARD3B (Par-3 partitioning defective 3 homolog B), also known as PAR3B, PAR3 β , PAR3L, PAR3LC or Par3Lb, is a 1,205 amino acid putative adapter protein of the endomembrane system that participates in cell polarization and asymmetrical cell division. Likely involved in epithelial tight junction formation, PARD3B localizes to the cell junction where it colocalizes with ZO-1 (zona occludens protein 1). PARD3B is expressed in a variety of tissues with highest expression found in skeletal muscle, lung and kidney, and moderate levels found in pancreas, brain, heart, liver and placenta. Existing as five alternatively spliced isoforms, PARD3B contains three PDZ (DHR) domains and is encoded by a gene located on human chromosome 2q33.3.

REFERENCES

- Hadano, S., et al. 2001. A gene encoding a putative GTPase regulator is mutated in familial amyotrophic lateral sclerosis 2. *Nat. Genet.* 29: 166-173.
- Kohjima, M., et al. 2002. PAR3 β , a novel homologue of the cell polarity protein PAR3, localizes to tight junctions. *Biochem. Biophys. Res. Commun.* 299: 641-646.
- Gao, L., et al. 2002. Multiple splice variants of Par3 and of a novel related gene, Par3L, produce proteins with different binding properties. *Gene* 294: 99-107.
- Warner, D.R., et al. 2003. Identification of three novel Smad binding proteins involved in cell polarity. *FEBS Lett.* 539: 167-173.
- Jin, J., et al. 2004. Proteomic, functional, and domain-based analysis of *in vivo* 14-3-3 binding proteins involved in cytoskeletal regulation and cellular organization. *Curr. Biol.* 14: 1436-1450.
- Izaki, T., et al. 2006. Two forms of human Inscuteable-related protein that links Par3 to the Pins homologues LGN and AGS3. *Biochem. Biophys. Res. Commun.* 341: 1001-1006.

CHROMOSOMAL LOCATION

Genetic locus: PARD3B (human) mapping to 2q33.3; Pard3b (mouse) mapping to 1 C2.

SOURCE

PAR3B (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PARD3B of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-168900 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

PAR3B (N-15) is recommended for detection of PARD3B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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); non cross-reactive with PARD3A.

PAR3B (N-15) is also recommended for detection of PARD3B in additional species, including canine and bovine.

Suitable for use as control antibody for PARD3B siRNA (h): sc-94928, PARD3B siRNA (m): sc-152024, PARD3B shRNA Plasmid (h): sc-94928-SH, PARD3B shRNA Plasmid (m): sc-152024-SH, PARD3B shRNA (h) Lentiviral Particles: sc-94928-V and PARD3B shRNA (m) Lentiviral Particles: sc-152024-V.

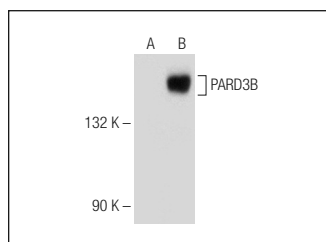
Molecular Weight of PARD3B: 133 kDa.

Positive Controls: PARD3B (m): 293T Lysate: sc-179294.

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



PAR3B (N-15): sc-168900. Western blot analysis of PARD3B expression in non-transfected: sc-117752 (A) and mouse PARD3B transfected: sc-179294 (B) 293T whole cell lysates.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.