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Anti-PARD3 Antibody

Catalog # AP51413

Product Information

Application	WB, IHC, IF/IC
Primary Accession	Q8TEW0
Reactivity	Human, Mouse, Rat, Chicken
Host	Rabbit
Clonality	Polyclonal
Calculated MW	151423

Additional Information

Gene ID	56288
Other Names	PAR3; PAR3A; Partitioning defective 3 homolog; PAR-3; PARD-3; Atypical PKC isotype-specific-interacting protein; ASIP; CTCL tumor antigen se2-5; PAR3-alpha
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human PARD3. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	PARD3 (HGNC:16051)
Synonyms	PAR3, PAR3A
Function	Adapter protein involved in asymmetrical cell division and cell polarization processes (PubMed:10954424, PubMed:27925688). Seems to play a central role in the formation of epithelial tight junctions (PubMed:27925688). Targets the phosphatase PTEN to cell junctions (By similarity). Involved in Schwann cell peripheral myelination (By similarity). Association with PARD6B may prevent the interaction of PARD3 with F11R/JAM1, thereby preventing tight junction assembly (By similarity). The PARD6-PARD3 complex links GTP-bound Rho small GTPases to atypical protein kinase C proteins (PubMed:10934474). Required for establishment of neuronal polarity and normal axon formation in cultured hippocampal neurons (PubMed:19812038, PubMed:27925688).
Cellular Location	Cytoplasm. Endomembrane system. Cell junction. Cell junction, tight junction.

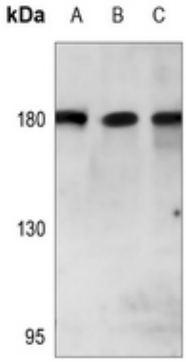
Cell junction, adherens junction {ECO:0000250|UniProtKB:Q99NH2}. Cell membrane. Cytoplasm, cell cortex. Cytoplasm, cytoskeleton. Note=Localized along the cell-cell contact region. Colocalizes with PARD6A and PRKCI at epithelial tight junctions. Colocalizes with the cortical actin that overlays the meiotic spindle during metaphase I and metaphase II. Colocalized with SIRT2 in internode region of myelin sheath (By similarity). Presence of KRIT1, CDH5 and RAP1B is required for its localization to the cell junction.

Tissue Location Widely expressed..

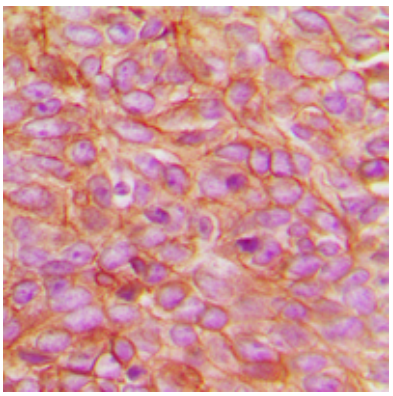
References

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Images

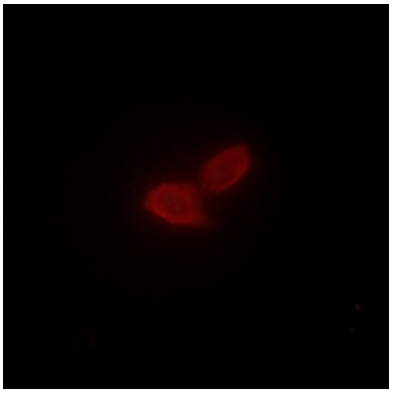


Western blot analysis of PARD3 expression in HEK293T (A), U2OS (B), A549 (C) whole cell lysates. (Predicted band size: 151 kD; Observed band size: 180 kD)



Immunohistochemical analysis of PARD3 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Immunofluorescent analysis of PARD3 staining in HepG2 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF594-conjugated secondary antibody (red) in PBS at room temperature in the dark.



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