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DLG5 Rabbit pAb

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Catalog # AP55227

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q8TDM6
Predicted	Rat, Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	213868
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human DLG5
Epitope Specificity	1801-1919/1919
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cell junction. Cell membrane. Localized at sites of cell-cell contact.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Membrane-associated guanylate kinase (MAGUK) family members function as molecular scaffolds for the assembly of multiprotein complexes localizing to the plasma membrane. Several mammalian proteins related to the Drosophila tumor suppressor discs-large (dlg) gene product belong to the MAGUK family. MAGUK family members include the postsynaptic proteins PSD-93, DLG5, Pals1, PSD-95 (SAP 90), densin-180, NE-dlg (SAP 120), dlg-1 (SAP 97), GKAP (GK-associated protein), p55, the tight junction associated proteins ZO-1-3 and the caspase-associated recruitment domain (CARD) proteins CARD6, CARD8-12 and CARD14. DLG5, a cell-cell junction peripheral membrane protein, plays an important role in maintaining the structure of epithelial cell plasma membranes. It also plays an important part in transmitting extracellular signals to the cytoskeleton and the membrane. DLG5 which can interact with MPP1 and CTNNB1, is primarily expressed in prostate and placenta.

Additional Information

Gene ID	9231
Other Names	Disks large homolog 5, Discs large protein P-dlg, Placenta and prostate DLG, DLG5, KIAA0583, PDLG
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When

reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	DLG5
Synonyms	KIAA0583, PDLG
Function	Acts as a regulator of the Hippo signaling pathway (PubMed: 28087714, PubMed:28169360). Negatively regulates the Hippo signaling pathway by mediating the interaction of MARK3 with STK3/4, bringing them together to promote MARK3-dependent hyperphosphorylation and inactivation of STK3 kinase activity toward LATS1 (PubMed:28087714). Positively regulates the Hippo signaling pathway by mediating the interaction of SCRIB with STK4/MST1 and LATS1 which is important for the activation of the Hippo signaling pathway. Involved in regulating cell proliferation, maintenance of epithelial polarity, epithelial-mesenchymal transition (EMT), cell migration and invasion (PubMed:28169360). Plays an important role in dendritic spine formation and synaptogenesis in cortical neurons; regulates synaptogenesis by enhancing the cell surface localization of N-cadherin. Acts as a positive regulator of hedgehog (Hh) signaling pathway. Plays a critical role in the early point of the SMO activity cycle by interacting with SMO at the ciliary base to induce the accumulation of KIF7 and GLI2 at the ciliary tip for GLI2 activation (By similarity).
Cellular Location	Cell junction. Cell membrane; Peripheral membrane protein. Postsynaptic density {ECO:0000250|UniProtKB:E9Q9R9}. Cytoplasm, cytoskeleton, cilium basal body {ECO:0000250|UniProtKB:E9Q9R9}. Note=Localized at sites of cell-cell contact
Tissue Location	Highly expressed in normal breast tissues and low- grade breast cancer tissues (at protein level) (PubMed:28169360) Highly expressed in the placenta and prostate. Expressed at a lower level in the thyroid, spinal cord, trachea, adrenal gland, skeletal muscle, pancreas, heart, brain, liver and kidney. A short splice product shows more limited expression, being absent from at least the brain.

Background

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