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CD2AP Rabbit pAb

Catalog # AP98463

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q9Y5K6
Other Accession	Q9Y5K6
Host	Rabbit
Clonality	Polyclonal
Calculated MW	71451
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CD2AP
Epitope Specificity	561-639/639
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 3 SH3 domains.
SUBUNIT	Self-associates. Homodimer (Potential). Interacts with F-actin, PKD2, NPHS1 and NPHS2. Interacts with WTIP. Interacts with DDN; interaction is direct. Interacts (via SH3 2 domain) with CBL (via phosphorylated C-terminus). Interacts with BCAR1/p130Cas (via SH3 domain). Interacts with MVB12A and ARHGAP17. Interacts with ANLN, CD2 and CBLB. Interacts with PDCD6IP and TSG101. Interacts with RIN3.
Post-translational modifications	Phosphorylated on tyrosine residues; probably by c-Abl, Fyn and c-Src.
DISEASE	Focal segmental glomerulosclerosis 3 (FSGS3) [MIM:607832]: A renal pathology defined by the presence of segmental sclerosis in glomeruli and resulting in proteinuria, reduced glomerular filtration rate and progressive decline in renal function. Renal insufficiency often progresses to end-stage renal disease, a highly morbid state requiring either dialysis therapy or kidney transplantation. Note=Disease susceptibility is associated with variations affecting the gene represented in this entry.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a scaffolding molecule that regulates the actin cytoskeleton. The protein directly interacts with filamentous actin and a variety of cell membrane proteins through multiple actin binding sites, SH3 domains, and a proline-rich region containing binding sites for SH3 domains. The cytoplasmic protein localizes to membrane ruffles, lipid rafts, and the leading edges of cells. It is implicated in dynamic actin remodeling and membrane trafficking that occurs during receptor endocytosis and cytokinesis. Haploinsufficiency of this gene is implicated in susceptibility to glomerular disease. [provided by RefSeq, Jul 2008].

Additional Information

Gene ID	23607

Other Names	CMS; METS-1; Mets1; CD2AP_HUMAN; CD2AP; Adapter protein CMS; Cas ligand with multiple SH3 domains; CD2AP_MOUSE; Mesenchyme-to-epithelium transition protein with SH3 domains 1 (METS-1); CD2 associated protein; Cas ligand with multiple Src homology (SH) 3 domains
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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	CD2AP
Function	Seems to act as an adapter protein between membrane proteins and the actin cytoskeleton (PubMed:10339567). In collaboration with CBLC, modulates the rate of RET turnover and may act as regulatory checkpoint that limits the potency of GDNF on neuronal survival. Controls CBLC function, converting it from an inhibitor to a promoter of RET degradation (By similarity). May play a role in receptor clustering and cytoskeletal polarity in the junction between T-cell and antigen-presenting cell (By similarity). May anchor the podocyte slit diaphragm to the actin cytoskeleton in renal glomerolus. Also required for cytokinesis (PubMed:15800069). Plays a role in epithelial cell junctions formation (PubMed:22891260).
Cellular Location	Cytoplasm, cytoskeleton. Cell projection, ruffle. Cell junction. Note=Colocalizes with F-actin and BCAR1/p130Cas in membrane ruffles (PubMed:10339567). Located at podocyte slit diaphragm between podocyte foot processes (By similarity). During late anaphase and telophase, concentrates in the vicinity of the midzone microtubules and in the midbody in late telophase (PubMed:15800069). {ECO:0000250|UniProtKB:Q9JLQ0, ECO:0000269|PubMed:10339567, ECO:0000269|PubMed:15800069}
Tissue Location	Widely expressed in fetal and adult tissues.

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