SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

[Primary Antibody]

Rabbit Anti-CD2AP antibody

Catalog Number: SL22213R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	CD2AP
Immunogen:	KLH conjugated synthetic peptide derived from human CD2AP: 441-540/639
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	IHC-P=1:100-500 IHC-F=1:100-500 IF=1:100-500 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Rat(predicted:Human,Mouse,Pig,Cow,Horse,Rabbit,Sheep)
Predicted MW.:	71kDa
Subcellular Location:	cytoplasmic
Background:	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]. **Function:** Seems to act as an adapter protein between membrane proteins and the actin cytoskeleton. May play a role in receptor clustering and cytoskeletal polarity in the junction between T-cell and antigen-presenting cell. May anchor the podocyte slit diaphragm to the actin cytoskeleton in renal

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	glomerolus. Also required for cytokinesis. **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. **Subcellular Location:** Cytoplasm, cytoskeleton. Cell projection, ruffle. Note=Colocalizes with F-actin and BCAR1/p130Cas in membrane ruffles. Located at podocyte slit diaphragm between podocyte foot processes. During late anaphase and telophase, concentrates in the vicinity of the midzone microtubules and in the midbody in late telophase. **Tissue Specificity:** Widely expressed in fetal and adult tissues. **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. **Similarity:** Contains 3 SH3 domains. **Database links:** **Entrez Gene:** 23607 Human **Entrez Gene:** 12488 Mouse **Entrez Gene:** 316258 Rat Omim: 604241 Human **SwissProt:** Q9Y5K6 Human **SwissProt:** Q9JLQ0 Mouse **Unigene:** 485518 Human **Unigene:** 218637 Mouse **Unigene:** 212220 Rat CD2AP may act as a linker protein connecting slit diaphragm molecules to the Cytoskeleton and play an important role in the process of Cell differentiation, namely proliferation. At present, it is mainly used in research on kidney function. D2AP not only participates in T cell activation, but also plays a crucial role in kidney function; its abnormal expression may be one of the triggers of human kidney disease.

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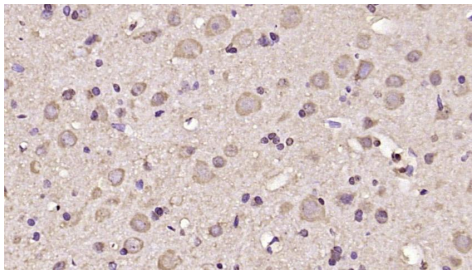
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[VALIDATION IMAGES]



Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CD2AP) Polyclonal Antibody, Unconjugated (SL22213R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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