SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-KIRREL1 antibody

Catalog Number: SL6435R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	KIRREL1
Immunogen:	KLH conjugated synthetic peptide derived from human KIRREL1/NEPH1: 301-400/757 <Extracellular>
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:	WB=1:500-2000 IHC-P=1:100-500 IHC-F=1:100-500 IF=1:100-500 ELISA=1:5000-10000 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	(predicted: Human, Mouse, Rat)
Predicted MW.:	82kDa
Subcellular Location:	The cell membrane
Background:	Neph1(Kirrel) belongs to a family of three closely related transmembrane proteins of the Ig superfamily with a structure similar to that of nephrin. Neph1 consists of a signal peptide, five Ig-like C2-type domains with the middle domain overlapping with a PKD-like domain, an RGD sequence, a transmembrane domain and a cytoplasmic tail. Neph1 is abundantly expressed in the kidney, specifically expressed in podocytes of kidney glomeruli, and plays a significant role in the normal development and function of the glomerular permeability. Neph1 interacts with nephrin in vitro and in vivo, and able to stimulate transcriptional activation in a model system, such as the activation the

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	transcription factor AP-1 via the stimulation of a MAPK module. Neph1 is crucial for the integrity of the slit diaphragm, as Neph1 gene knockout mice results in effacement of glomerular podocytes, heavy proteinuria, and early postnatal death. . Tissue specificity: Abundantly expressed in kidney. Specifically expressed in podocytes of kidney glomeruli. **Function:** Plays a significant role in the normal development and function of the glomerular permeability. Signaling protein that needs the presence of TEC kinases to fully trans-activate the transcription factor AP-1 (By similarity). **Subunit:** Interacts with TJP1/ZO-1 and with NPHS2/podocin (via the C-terminus). Interacts with NPHS1/nephrin (via the Ig-like domains); this interaction is dependent on KIRREL glycosylation. Homodimer (via the Ig-like domains). Interacts when tyrosine-phosphorylated with GRB2 (By similarity). **Subcellular Location:** Cell membrane; Single-pass type I membrane protein. **Tissue Specificity:** Abundantly expressed in kidney. Specifically expressed in podocytes of kidney glomeruli. **Post-translational modifications:** Phosphorylation probably regulates the interaction with NSH2. Phosphorylated at Tyr-605 and Tyr-606 by FYN, leading to GRB2 binding (By similarity). N-glycosylated (By similarity). **Similarity:** Belongs to the immunoglobulin superfamily. Contains 5 Ig-like C2-type (immunoglobulin-like) domains. **Database links:** **Entrez Gene:** 84623 Human **Entrez Gene:** 67703 Mouse **Entrez Gene:** 315546 Rat Omim: 607761 Human **SwissProt:** Q8IZU9 Human **SwissProt:** Q8BR86 Mouse **Unigene:** 376015 Human **Unigene:** 220710 Mouse **Unigene:** 7602 Rat

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