

Datasheet for ABIN7320373
KIRREL Protein (His tag)[Go to Product page](#)

1 Image

Overview

Quantity:	100 µg
Target:	KIRREL (NEPH1)
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This KIRREL protein is labelled with His tag.

Product Details

Purpose:	Recombinant Mouse KIRREL1/NEPH1 Protein (His Tag)(Active)
Sequence:	Met 1-Leu 525
Characteristics:	A DNA sequence encoding the extracellular domain of mouse KIRREL1 (NP_570937.2) (Met 1-Leu 525) was expressed with a C-terminal polyhistidine tag.
Purity:	> 98 % as determined by SDS-PAGE
Endotoxin Level:	< 1.0 EU per µg of the protein as determined by the LAL method.
Biological Activity Comment:	Measured by the ability of the immobilized protein to support the adhesion of MS1 mouse pancreatic islet endothelial cells (ATCC: CRL2279). When cells are added to coated plates (30 µg/mL, 100 µL/well), > 40% cells will adhere specifically after 90 minutes at 37 °C.

Target Details

Target:	KIRREL (NEPH1)
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Target Details

Alternative Name: KIRREL1/NEPH1 ([NEPH1 Products](#))

Background: NEPH1 (KIRREL1) belongs to a family of three closely related transmembrane proteins of the Ig superfamily with a structure similar to that of nephrin. All three Neph proteins share a conserved podocin-binding motif, mutation of a centrally located tyrosine residue dramatically lowers the affinity of Neph1 for podocin. Neph1 triggers AP-1 activation similarly to nephrin but requires the presence of Tec family kinases for efficient transactivation. 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, which is expressed in slit diaphragm domains of podocytes and in vertebrate and invertebrate nervous systems. 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 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.

Synonym: Kin of IRRE-like protein 1, Kin of irregular chiasm-like protein 1, Nephrin-like protein 1, Kirrel1, Neph1

Molecular Weight: 53.8 kDa

NCBI Accession: [NP_570937](#)

Pathways: [Regulation of Actin Filament Polymerization](#)

Application Details

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Please refer to the printed manual for detailed information.

Buffer: Lyophilized from sterile PBS, pH 7.4

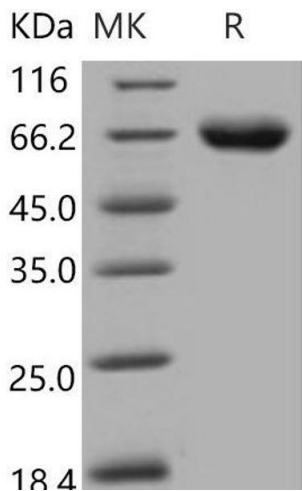
Storage: 4 °C, -20 °C, -80 °C

Storage Comment: Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted

Handling

samples are stable at < -20°C for 3 months.

Images



Western Blotting

Image 1.