



Recombinant Protein Technical Manual
Recombinant Mouse KIRREL1/NEPH1 Protein (His
Tag)
RPES1247

Product Data:

Product SKU: RPES1247

Size: 10µg

Species: Mouse

Expression host: Human Cells

Uniprot: Q80W68

Protein Information:

Molecular Mass: 53.4 kDa

AP Molecular Mass: 60-90 kDa

Tag: C-His

Bio-activity:

Purity: > 95% as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.

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

Application:

Synonyms: Kin of IRRE-like protein 1; Kin of irregular chiasm-like protein 1; Nephrin-like protein 1; Kirrel1; Neph1

Immunogen Information:

Sequence: Leu48-Leu525

Background:

Kin of irregular chiasm-like protein 1(Kirrel1), also known as Nephrin-like protein 1(Neph1), belongs to the immunoglobulin superfamily. Kirrel1 plays a significant role in the normal development and function of the glomerular permeability. It is a signaling protein that needs the presence of TEC kinases to fully trans-activate the transcription factor AP. The knockout of this gene could result in perinatal lethality accompanied by proteinuria, and effacement of glomerular podocytes. Kirrel1 is abundantly expressed in kidney and specifically expressed in podocytes of kidney glomeruli. Its' subunit interacts with TJP1/ZO and with NPHS2/podocin (via the C-terminus) and interacts with NPHS1/nephrin (via the Ig-like domains). This interaction is dependent on KIRREL glycosylation. Kirrel1 also interacts when tyrosine-phosphorylated with GRB2.