

## Kirrel1/NEPH1 Protein, Mouse (HEK293, His)

<b>Cat. No.:</b>	HY-P70866
<b>Synonyms:</b>	Kin of IRRE-like protein 1; Kin of irregular chiasm-like protein 1; Nephrin-like protein 1; Kirrel1; Neph1
<b>Species:</b>	Mouse
<b>Source:</b>	HEK293
<b>Accession:</b>	Q80W68 (L48-L525)
<b>Gene ID:</b>	170643
<b>Molecular Weight:</b>	60-90 kDa

### PROPERTIES

<b>AA Sequence</b>	<pre> L P G T Q T R F S Q   E P A D Q T V V A G   Q R A V L P C V L L   N Y S G I V Q W T K D G L A L G M G Q G   L K A W P R Y R V V   G S A D A G Q Y N L   E I T D A E L S D D A S Y E C Q A T E A   A L R S R R A K L T   V L I P P E E T R I   D G G P V I L L Q A G T P Y N L T C R A   F N A K P A A T I I   W F R D G T Q Q E G   A V T S T E L L K D G K R E T T I S Q L   L I E P T D L D I G   R V F T C R S M N E   A I P N G K E T S I E L D V H H P P T V   T L S I E P Q T V L   E G E R V I F T C Q   A T A N P E I L G Y R W A K G G F L I E   D A H E S R Y E T N   V D Y S F F T E P V   S C E V Y N K V G S T N V S T L V N V H   F A P R I V V Y P K   P T T T D I G S D V   T L T C V W V G N P P L T L T W T K K D   S N M V L S N S N Q   L L L K S V T Q A D   A G T Y T C R A I V P R I G V A E R E V   P L Y V N G P P I I   S S E A V Q F A V R   G D G G K V E C F I G S T P P P D R I A   W A W K E N F L E V   G T L E R Y T V E R   T N S G S G V L S T L T I N N V M E A D   F Q T H Y N C T A W   N S F G P G T A I I   Q L E E R E V L </pre>
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of PBS, 1mM EDTA, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

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**Background**

Kirrel1, also known as NEPH1, is indispensable for maintaining the proper function of the glomerular filtration barrier. It plays a crucial role in preserving a stable podocyte architecture, characterized by interdigitating foot processes connected through specialized cell-cell junctions known as the slit diaphragm. As a signaling protein, Kirrel1 requires the presence of TEC kinases for full trans-activation of the transcription factor AP-1. It engages in interactions with key proteins such as TJP1/ZO-1 and NPHS2/podocin, contributing to the intricate molecular network governing podocyte structure and function. Additionally, Kirrel1 forms homodimers through its Ig-like domains and, when tyrosine-phosphorylated, interacts with the signaling adaptor protein GRB2. Notably, its interaction with NPHS1/nephrin relies on Kirrel1 glycosylation, highlighting the complexity of its regulatory roles in podocyte biology.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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