

## Product datasheet for **RG219548**

### **KIRREL1 (NM\_018240) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	KIRREL1 (NM_018240) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	KIRREL1
Synonyms:	KIRREL; NEPH1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG219548 representing NM\_018240  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCTGAGCCTCCTCGTCTGGATCCTCACTCTCTCCGATACTTTCTCCCAAGGGACCCAGACCCGCTTCA  
 GCCAGGAGCCAGCTGACCAGACGGTGGTGGCTGGACAGCGGGCCGTGCTCCCCTGTGTGCTGCTCAACTA  
 CTCTGGAATTGTGCAATGGACCAAGGACGGCTGGCCCTGGGCATGGGCCAGGGCCTCAAAGCCTGGCCA  
 CGGTACCGGGTTGTGGGCTCCGACAGCGCTGGGCAGTACAACCTGGAGATCACAGATGCTGAGCTCTCTG  
 ACGACGCCTTTACGAGTGCCAGGCCACGGAGGCCCTGCGCTCTCGGCGGGCCAAACTACCGTGCT  
 CATCCCCCAGAGGACACCAGGATTGACGGAGGCCCTGTGATTCTACTGCAGGCAGGCACCCCCACAAC  
 CTCACATGCCGGGCTTCAATGCGAAGCCTGCTGCCACCATCATCTGGTTCGGGACGGGACGCAGCAGG  
 AGGGCGCTGTGGCCAGCACGGAATTGCTGAAGGATGGGAAGGGAGACCACCGTGAGCCAACCTGTTAT  
 TAACCCACGGACCTGGACATAGGGCGTGTCTTCACTTGGCGAAGCATGAACGAAGCCATCCCTAGTGGC  
 AAGGAGACTTCCATCGAGCTGGATGTGCACCACCTCCTACAGTGACCCTGTCCATTGAGCCACAGACGG  
 TGCAGGAGGGTGAGCGTGTGTCTTTACCTGCCAGGCCACAGCCAAACCCGAGATCTTGGGCTACAGGTG  
 GGCCAAAGGGGGTTTCTTGATTGAAGACGCCACGAGAGTCGCTATGAGACAAATGTGGATTATTCCTTT  
 TTCACGGAGCCTGTGCTTTGTGAGGTTCAACAAGTGGGAAGCACCAATGTCAGCACTTTAGTAAATG  
 TCCACTTTGCTCCCCGATTGTAGTTGACCCCAAAACCCACAACCACAGACATTGGCTCTGATGTGACCT  
 TACCTGTGTCTGGGTTGGGAATCCCCCCTCACTCTCACCTGGACAAAAAGGACTCAAATATGGTCCTG  
 AGTAACAGCAACCAGCTGCTGCTGAAGTCGGTGACTCAGGCAGACGCTGGCACCTACACCTGCCGGGCCA  
 TCGTGCCCTCGAATCGGAGTGGCTGAGCGGGAGGTGCCGCTCATGTGAACGGGCCCCCATCATCTCCAG  
 TGAGGCAGTGCAGTATGCTGTGAGGGGTGACGGTGGCAAGGTGGAGTGTTCATTGGGAGCACACCACCC  
 CCAGACCCGATAGCATGGCCTGGAAGGAGAATTCTTGAGGTGGGACCCCTGGAACGCTATACAGTGG  
 AGAGGACCAACTCAGGCAGTGGGGTGTATCCACGCTCACCATCAACAATGTCATGGAGGCCGACTTTCA  
 GACTCACTAACAATGCACCGCTGGAACAGCTTCGGGCCAGGCACAGCCATCATCCAGCTGGAAGAGCGA  
 GAGGTGTACCTGTGGGCATCATAGCTGGGGCCACCATCGGCGGAGCATCTGCTCATCTTCTTCTTCA  
 TCGCCTTGGTATTCTTCTCTACCGGCGCCGAAAGGCAGTCGAAAGACGTGACCCTGAGGAAGCTGGA  
 TATCAAGGTGGAGACAGTGAACCGAGAGCCACTACGATGCATTCTGACCGGGAGGATGACACCGCCAGC  
 GTCTCCACAGCAACCCGGTTCATGAAGGCCATCTACTCGTCGTTAAGGATGATGTGGATCTGAAGCAGG  
 ACCTGCGCTGCGACACCATCGACACCCGGGAGGAGTATGAGATGAAGGACCCACCAATGGCTACTACAA  
 CGTGCGTGCCCATGAAGACCGCCCTTCCAGGGCAGTGTCTATGCTGACTACCGTGCCCTGGCCCT  
 GCCCGTTTCGACGGCCGCCCTCATCCCGTCTCTCCCACTCCAGCGGCTATGCCAGCTCAACACCTATA  
 GCCGGGGCCCTGCCTCTGACTATGGCCCTGAGCCACACCCCTGGCCCTGCTGCCCCAGCTGGCACTGA  
 CACAACCAGCCAGCTGTCTACGAGAATATGAGAAGTTCAACTCCCATCCCTTCCCTGGGGCAGCTGGG  
 TACCCACCTACCGACTGGGCTACCCCAAGGCCACCCCTTGGCCTGGAGCGGACCCCATATGAGGCGT  
 ATGACCCATTGGCAAGTACGCCACAGCCACTCGATTCTCTACACCTCCAGCACTCGGACTACGGCCA  
 GCGATTCCAGCAGCGCATGCAGACTCACGTG

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >RG219548 representing NM\_018240  
Red=Cloning site Green=Tags(s)

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MLSLLVWILTLSDTFSQGTQTRFSQEPADQTVVAGQRAVLPCVLLNYSIGIVQWTKDGLALGMGQGLKAWP
RYRVVGSADAGQYNLEITDAELSDDASYECQATEAALRSRRAKLTVLIPPEDTRIDGGPVILLQAGTPHN
LTCRAFNAKPAATIIWFRDGTQQEGAVASTELLKDGKRETTVSQLLINPTDLDIGRVFTCRSMNEAIPSG
KETSIELDVVHPPTVTLSEIPEQTVQEGERVVFTCQATANPEILGYRWAKGGFLIEDAHESRYETNVDSYF
FTEPVSCVHNKVGSTNVSTLVNVHFAPRIVVDPKPTTDDIGSDVTLTCVWVGNPPLTLTWTKDSNMVL
SNSNQLLLKSVTQADAGTYTCRAIVPRIGVAEREVPLVYVNGPPIISSEAVQYAVRGDGGKVECFIGSTPP
PDRIAWAWKENFLEVGLTERYTVERTNSGSGVLSTLTINNVMEDFQTHYNCTAWNSFGPGTAIIQLEER
EVLVPGIAGATIGASILLIFFFIALVFFLYRRRKGSRKDVTLRKLDIKVETVNRPLTMHSDREDDTAS
VSTATRVMKAIYSSFKDDVDLQDLRCDTIDTREEYEMKDPTNGYYNVRAHEDRPSRAVLADYRAPGP
ARFDGRPSSRLSHSSGYAQLNTYSRGPASDYGPEPTPPGPAAPAGTDTTSQLSYENYEKFNHPFPGAAG
YPTYRLGYPQAPPSGLERTPYEAYDPIGKYATATRFSYTSQHSYDYGQRFQQRMQTHV
    
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_018240

**ORF Size:** 2271 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [NM\\_018240.7](#)

**RefSeq Size:** 3628 bp

**RefSeq ORF:** 2274 bp

**Locus ID:** 55243

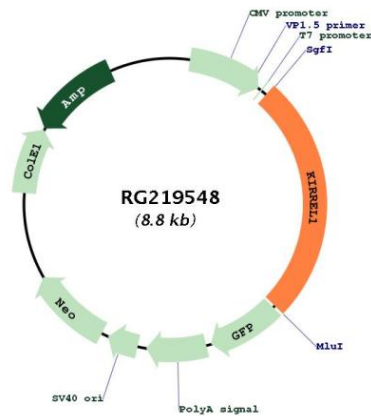
**UniProt ID:** [Q96J84](#)

**Cytogenetics:** 1q23.1

**Protein Families:** Transmembrane

**Gene Summary:** NEPH1 is a member of the nephrin-like protein family, which includes NEPH2 (MIM 607761) and NEPH3 (MIM 607762). The cytoplasmic domains of these proteins interact with the C terminus of podocin (NPHS2; MIM 604766), and the genes are expressed in kidney podocytes, cells involved in ensuring size- and charge-selective ultrafiltration (Sellin et al., 2003 [PubMed 12424224]).[supplied by OMIM, Mar 2008]

### Product images:



Circular map for RG219548