

Product datasheet for **RC239773**

Nephrocystin 4 (NPHP4) (NM_001291593) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nephrocystin 4 (NPHP4) (NM_001291593) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NPHP4
Synonyms:	POC10; SLSN4
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RC239773 representing NM_001291593
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCACCCACGGAGCCTGTCAGTGGCCCCAAAGTGGAGCGCGGCCTTCCAGAAACACCCACGTCCCC
 TTCGAGAGTTCCTGTTGGAGGCCGTATCTCCACCTGGAAGCCGACCTGAGCCAGACCTCCCTGGTCTT
 GAAACATCCATTGCCGAACAGTTACAGGAGCTGCCGTTACGCCTTTGCATGCCCTATTGTTGTGGGA
 ACCCAGACCAGGAGCTCTGCAGGGCAGCCCTCGAGAGCCTCCATGGTGTCTCTGCAGTCTCCGGTTC
 CCGAGATTCTGGATGCCAATAAACAGCCAGCCGAGGCTGTACAGCCTACAGAACCCTGTGACGTTAAACC
 TCAGAAGGAAGAATCAGATTGTCTACAAAGCAACGAGATGGTGTACAGTTTCTTGCCTTAGCAGAGTG
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 CCGCAACGACGCCACGACTGCAGCTGGTCCAGCTGGATGAGGCCGCCAGCCAGCTCTGGCGCCCTGAC
 CCACATCTCGTCCCTGTGAGCAGAGATGGCACCTTTGATGCTGGGTCTCCTGGCTTCCAGCTGAGGTAC
 ATGGTGGGCCCTGGGTTCTGAAGCCAGGTGAGCGGCCGTGCTTTGCCCGCTACCTGGCCGTGCAGACCC
 TGCAGATTGACGTCTGGGACGGAGACTCCCTGCTGCTCATCGGATCTGCTGCCGTCCAGATGAAGCATCT
 CCTCCGCCAAGGCCGGCCGGCTGTGCAGGCCTCCACAGCTTGGAGTCTGGCAACTGAATACGAGCAG
 GACAACATGGTGGTGAAGTGGAGACATGTGGGGTTGGCCCGCTCAAGCCATCGGCGTCCACTCGGTGG
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 CACATTGCCACCGTCCAGATCTCGGGTCATCTCAAACGATGGAGCCAGCCGTTCTCTGGAGGCAGCCTC
 CTCACGACTGGAAGCTCAAGGCGAAAACACGTGGTGAAGCACAGAAGCTGGCGGACGTGGACAGTGAGC
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 CACCCGACAGGCGTAAGCTGGAGCCGATGAGGTCTGTGCGCTGCAGGAGGCCGGGGAGACTTGGGCCGG
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 CCTACCGGAACGCACGAAGGCCGAGAGCATCGCCAGCCTGCTGAGCCTGGCCATCACCAGGAGCACAC
 GCTCCACGCCACGCTGGGGTTCGCGGAGTTCTTTGAGTTGTGCTTAAGAACCCCAACAACACAGCAC
 ACGGTGACTGTGGAGATCGACAACCCGAGCTCAGCGTCATCGTGGACAGTCAAGGAGTGGAGGGACTTCA
 AGGGTGTCTGGCCTGCACACACCGGTGGAGGAGACATGTTCCACCTGCGTGGCAGCCTGGCCCCCA
 GCTCTACCTGCGCCCCACGAGACCGCCACGTCCTTCAAGTCCAGAGCTTCTGTCAGGGCAGCTG
 GCCATGGTGCAGGCTCTCCTGGTTGAGCAACGAGAAGGCATGGACGCCGTGTACCTTGAAGTCCA
 GCGCAGTCCCACTAAACACGCCAAGGTCTTGTCCGAGCGAGTGGTGGCAAGCCATCGCCGTGCTCTG
 CCTGACTGTGGAGCTGCAGCCCCACGTGGTGGACCAGGTCTTCCGCTTCTATACCCGGAGCTCTCCTTC
 CTGAAGAAGGCCATCCGCTGCCGCCCTGGCACACATTTCCAGGTGCTCCGGTGGGAATGCTTGGTGAAG
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 CGTGGGGTGCAGGACCTGCATGTTGGCGTGAAGCCCTTAGGGCCGGCAGCCGTTTGTCCATCTCAACC
 TGGTGGACGTGGATTGCCACCAGCTGGTGGCTCCTGGCTCGTGTGCTCTGCTGCCGCCAGCCGCTCAT
 CTCCAAGGCCCTTGGATCATGTTGGCTGCGGGCGAAGGGAAGGGTGTCAACAAGAGGATCACCTACACC
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 ATCTACCAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC239773 representing NM_001291593
 Red=Cloning site Green=Tags(s)

MHPRSLVAPKWSGGLPGNHRPLREFPLEAGISHLEADLSQTSVLVLETSIAEQLQELPFTPLHAPIVVG
 TQTRSSAGQPSRASMVLQSSGFPEILDANKQPAEAVSATEPVTFNPQKEESDCLQSNEMVLQFLAFSRV
 AQDCRGTSWPKTVYFTFQFYRFPPATTPRLQLVQLDEAGQPSSGALTHILVPVSRDGTFDAGSPGFQLRY
 MVGPGFLKPGERRCFARYLAVQTLQIDVWDGDSLLLIGSAAVQMKHLLRQGRPAVQASHELEVATEYEQ
 DNMVVSGDMLGFRVKPIGVHSVVKGRHLHLTLANVGHPCQKVRGCSTLPPSRSRVINSNGASRFSGGSL
 LTTGSSRRKHVVQAQKLADVDSLAAMLLTHARQKGKQPQDVSRESDATRRRKLERMRSVRLQEAGDGLGR
 RGTSVLAQQSVRTQHLRDLQVIAAYRERTKAESIASLLSLAITTEHTLHATLGVAEFFEFLKPNPHNTQH
 TVTVEIDNPELSVIVDSQEWDFKGAAGLHTPVEEDMFHLRGLAPQLYLRPHETAHVPFKQSFASAGQL
 AMVQASPLSNEKGMDAVSPWKSSAVPTKHAKVLFASGGKPIAVLCLVELQPHVVDQVFRFYHPEL SF
 LKKAIRLPPWHTFPGAPVGMLEDPPVHVRCDPNVICETQNVGPGEPDIFLKVASGPSPEIKDFV VII
 YSDRWLATPTQTWQVYLHSLQRVDVSCVAGQLTRL SLVLRGTQTVRKVRAFTSHPQELKTDPKGVFLPP
 RGVQDLHVGVRPLRAGSRFVHLNLVDVDCHQLVASWL VCLCCRQPLISKAFEIMLAAGEGKGVNKRITYT
 NPYPSSRRTFHLHSDHPELLRFREDSFQVGGGETYITGLQFAPSQRVGEELIYINDHEDKNEEAFCKVK
 IYQ

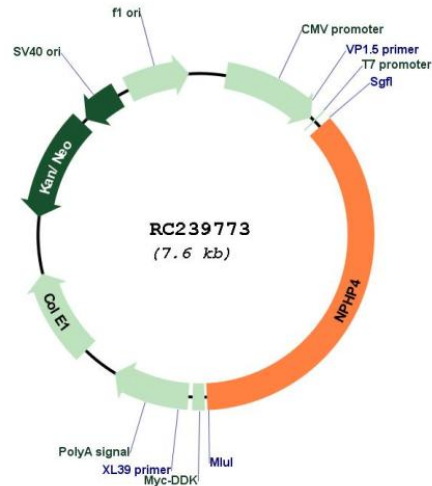
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_001291593

ORF Size: 2739 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_001291593.2](#)

RefSeq Size: 4710 bp

RefSeq ORF: 2742 bp

Locus ID: 261734

UniProt ID: [O75161](#)

Cytogenetics: 1p36.31

MW: 101.4 kDa

Gene Summary: This gene encodes a protein involved in renal tubular development and function. This protein interacts with nephrocystin, and belongs to a multifunctional complex that is localized to actin- and microtubule-based structures. Mutations in this gene are associated with nephronophthisis type 4, a renal disease, and with Senior-Loken syndrome type 4, a combination of nephronophthisis and retinitis pigmentosa. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Apr 2014]