

Product datasheet for **RC239776**

Nephrocystin 4 (NPHP4) (NM_001291594) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nephrocystin 4 (NPHP4) (NM_001291594) 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



[View online »](#)

ORF Nucleotide
Sequence:

>RC239776 representing NM_001291594
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGACCCACGGAGCCTGTCAGTGGCCCCAAAGTGGAGCGCGGCCTTCCAGAAACCACCCACGTCCCC
TTCGACAGGAGTCCCGTTGGAGCCGGTATCTCCACCTGGAAGCCGACCTGAGCCAGACCTCCCTGGT
CCTGGAACATCCATTGCCGAACAGTTACAGGAGCTGCCGTTACAGCCTTTGCATGCCCTATTGTTGTG
GGAACCCAGACCAGGAGCTCTGCAGGGCAGCCCTCGAGAGCTCCATGGTCTCTGCAGTCTCCGGCT
TTCCCGAGATTCTGGATGCCAATAAACAGCCAGCCGAGGCTGTCAGCGCTACAGAACCTGTGACGTTTAA
CCCTCAGAAGGAAGAATCAGATTGTCTACAAGCAACGAGATGGTGTACAGTTTCTTGCCTTTAGCAGA
GTGGCCACGACTGCCGAGGAACATCATGGCCAAAGACTGTGATTTACCTTCCAGTTCTACCGTTCC
CACCCGCAACGACGCCACGACTGCAGCTGGTCCAGCTGGATGAGGCCGGCCAGCCAGCTCTGGCCCT
GACCCACATCCTCGTGCCTGTGAGCAGAGATGGCACCTTTGATGTGGGTCTCTGGCTTCCAGCTGAGG
TACATGGTGGGCCCTGGGTTCTGAAGCCAGGTGAGCGCGCTGCTTTGCCCGCTACCTGGCCGTGCAGA
CCCTGCAGATTGACGTCTGGGACGGAGACTCCCTGCTGCTCATCGGATCTGCTGCCGTCCAGATGAAGCA
TCTCTCCGCCAAGGCCGGCCGGCTGTGCAGGCCTCCCACGAGCTTGAGGTCTGGCAACTGAATACGAG
CAGGACAACATGGTGGTGTGAGTGGAGACATGCTGGGTTTGGCCCGCTCAAGCCATCGGCCGTCCACTCGG
TGGTGAAGGGCCGGCTGCACCTGACTTTGGCCAACTGGGTCAACCGTGTGAACAGAAAGTGAGAGGTTG
TAGCACATTGCCACCGTCCAGATCTCGGGTCACTCAAACGATGGAGCCAGCCGCTTCTCTGGAGGCAGC
CTCCTCACGACTGGAAGCTCAAGGCCAAAACACGTGGTGAAGCACAGAAGCTGGCGGACGTGGACAGTG
AGCTGGTGGCCATGCTACTGACCCATGCCCGCAGGGCAAGGGGCCAGGACGTACAGCCGCGATCGGA
TGCCACCCGACAGGCGTAAGCTGGAGCGGATGAGGTCTGTGCGCCTGCAGGAGGCCGGGGAGACTTGGGC
CGGCGCGGGACGAGCGTGTGGCGCAGCAGAGCGTCCGCACACAGCACTTGGGGACCTACAGGTATCG
CCGCTACCGGGAACGCACGAAGGCCGAGAGCATCGCCAGCCTGCTGAGCCTGGCCATCACACGGAGCA
CACGCTCCACGCCACGCTGGGGTCCGCGAGTTCTTTGAGTTTGTGCTTAAGAACCCCCACAACACACAG
CACACGGTACTGTGGAGATCGACAACCCCGAGCTCAGCGTCATCGTGGACAGTCAGGAGTGGAGGGACT
TCAAGGGTGTGCTGGCCTGCACACACCCGGTGGAGGAGGACATGTTCCACCTGCGTGGCAGCCTGGCCCC
CCAGCTTACCTGCGCCCCACGAGACCCACGTCCTTCAAGTCCAGAGCTTCTCTGACGGGCAG
CTGGCCATGGTGCAGGCCTCTCTGGGTTGAGCAACGAGAAGGGCATGGACGCCGTGCACCTTGAAGT
CCAGCGCAGTGCCCACTAAACACGCCAAGGTCTTGTTCGAGCGAGTGGTGGCAAGCCCATCGCCGTGCT
CTGCCTGACTGTGGAGCTGCAGCCCCACGTGGTGGACCAGGTCTTCCGCTTCTATCACCCGGAGCTCTCC
TTCTGAAGAAGGCCATCCGCTGCCGCTGGCACACATTTCCAGGTGCTCCGGTGGGAATGCTTGGTG
AGGACCCCCAGTCCATGTTGCTGCAGCGACCCGAACGTCACTGTGAGACCCAGAATGTGGGCCCCGG
GGAACACGGGACATATTTCTGAAGGTGGCCAGTGGTCCAAGCCCGGAGATCAAAGACTTCTTTGTCATC
ATTTACTCGGATCGTGGCTGGCGACACCCACACAGACGTGGCAGGTCTACCTCCACTCCCTGCAGCGCG
TGGATGTCTCTCGCTCGCAGGCCAGCTGACCCGCTGTCCCTTGTCTTTCGGGGACACAGACAGTGAG
GAAAGTGAGAGCTTTCACCTCTCATCCCCAGGAGCTGAAGACAGACCCCAAAGGTGTCTTCTGTGCTGCCG
CCTCGTGGGGTGCAGGACCTGCATGTTGGCGTGAGGCCCTTAGGGCCGGCAGCCGCTTTGTCCATCTCA
ACCTGGTGGAGCTGGATTGCCACCAGCTGGTGGCTCCTGGCTCGTGTGCTCTGCTGCCGCCAGCCGCT
CATCTCCAAGGCCTTTGAGATCATGTTGGCTGCGGGCGAAGGGAAGGGTGTCAACAAGAGGATCACCTAC
ACCAACCCCTACCCCTCCCGGAGGACATTCACCTGCACAGCGACCCCGGAGCTGCTGCGGTTACAGAG
AGGACTCCTTCCAGGTCCGGGGTGGAGAGACCTACACCATCGGCTTGCAGTTTGCCTAGTCAGAGAGT
GGGTGAGGAGGATCCTGATCTACATCAATGACCATGAGGACAAAACGAAGAGGCATTTTGCCTGAAG
GTCATCTACCAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC239776 representing NM_001291594
 Red=Cloning site Green=Tags(s)

MHPRSLSVAPKWSGGLPGNHRPLRQEFPLEAGISHLEADLSQTSLVLETSLAEQLQELPFTPLHAPIVV
 GTQTRSSAGQPSRASMVLLQSSGFPEILDANKQPAEAVSATEPVTFNPQKEESDCLQSNEMVLQFLAFSR
 VAQDCRGTSWPKTVYFTFQFYRFPPTTPRLQLVQLDEAGQPSSGALTHILVPVSRDGTFDAGSPGFQLR
 YMVGPGLKPGERRCFARYLAVQTLQIDVWDGDSLLLIGSAAVQMKHLLRQGRPAVQASHELEVVAEYE
 QDNMVVSGDMLGFRVKPIGVHVVVKGRHLHLTLANVGHPCQKVRGCSTLPPSRSRVISNDGASRFSGGS
 LLTTGSSRRKHVVQAQKLADVDSELAAMLLTHARQKGKQPQDVSRESDATRRRKLERMRSVRLQEAGDGLG
 RRGTSVLAQQSVRTQHLRDLQVIAAYRERTKAESIASLLSLAITTEHTLHATLGVAEFFEFVLKNPHNTQ
 HTVTVEIDNPELSVIVDSQEWDFKGAAGLHTPVEEDMFHLRGLAPQLYLRPHETAHVPFKQSF SAGQ
 LAMVQASPGLSNEKMDAVSPWKSSAVPTKHAKVLFRASGGKPIAVLCLTVELQPHVVDQVFRFYHPELS
 FLKKAIRLPPWHTFPGAPVGMLEDPPVHVRCDPNVICETQNVGPGEPDIFLKVASGPSPEIKDFVI
 IYSDRWLATPTQTWQVYLHSLQRVDVSCVAGQLTRL SLVLRGTQTVRKVRAFTSHPQELKTDPKGVFVLP
 PRGVQDLHVGVRPLRAGSRFVHLNLDVDCHQLVASWL VCLCCRQPLISKAFEIMLAAGEGKGVNKRITY
 TNPYPSRRTFHLHSDHPELLRFREDSFQVGGGETYITIGLQFAPSQRVGEIEILYINDHEDKNEEAFCKV
 VIYQ

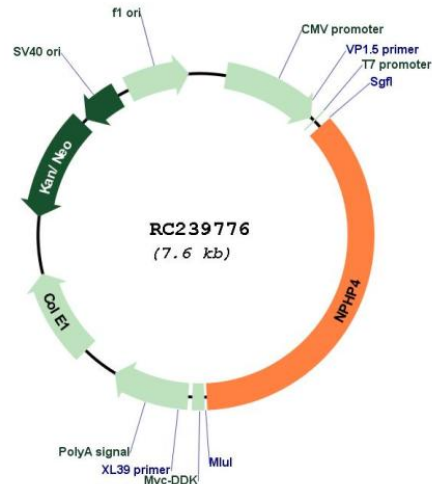
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_001291594

ORF Size: 2742 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_001291594.2](#)

RefSeq Size: 4533 bp

RefSeq ORF: 2745 bp

Locus ID: 261734

UniProt ID: [O75161](#)

Cytogenetics: 1p36.31

MW: 101.5 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]