

Product datasheet for **RC222151**

Nephronophthisis (NPHP1) (NM_000272) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nephronophthisis (NPHP1) (NM_000272) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Nephronophthisis
Synonyms:	JBTS4; NPH1; SLSN1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>RC222151 representing NM_000272
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTGGCGAGACGACAGCGAGATCCTCTCCAGGCCCTGCGGCGCCGAATCAGGAGCTGAAGCAACAGG
 TTGATAGTTTCTTTCTGAGAGCCAAGTAAAGAAAGCTCTAGAACCCAATAAAAGACAACATATTTATCA
 AAGATGTATCCAGTTAAAGCAGGCAATAGATGAAAATAAAAAATGCTCTTCAAAAATTAAGCAAAGCTGAT
 GAATCTGCACCTGTTGCAAACTATAATCAGAGAAAAGAAGAGGAGCATACTCTTTTGGACAAGCTTACCC
 AACAACTGCAGGGCCTTGTCTGTGACAATAAGCAGAGAAAATAACTGAAGTTGGGGCACCTACTGAAGA
 AGAGGAAGAAAAGTAAAGTGAAGATAGTGAAGACAGTGGTGGGAGGAAGAAGATGCAGAGGAGGAAGAG
 GAAGAGAAAAGAGGAAAATGAATCTCACAAATGGTCAACCGGTGAAGAATACATCGCTGTTGGAGATTTTA
 CTGCTCAGCAAGTTGGAGATCTTACATTTAAGAAAGGGGAAATTCCTTGTAAATTGAAAAAAACCTGA
 TGTTGGTGGATAGCTAAGGATGCCAAAGGAAATGAAGTCTTGTCCCAGAACCTACCTAGAGCCTTAT
 AGTGAAGAAGAAGAAGGCCAAGAGTCAAGTGAAGAGGGCAGTGAAGAAGATGTAGAGGCGGTGGATGAAA
 CAGCAGATGGAGCAGAAGTTAAGCAAAGAACTGATCCCCACTGGAGTGTCTTCCAGAAAGCGATTTCCAGA
 GGCGGGCATCTTCTGTCTTGTAAATCATGTCTCGTTTTGTACCTAATAGTTCTGATGCGAAATAGGATG
 GAGACTGTGGAAGACACCAATGGATCTGAAACAGGGTTCCAGGGCATGGAATGTACAGAGCAGAGGACGTA
 TATTTCTGGTTTCTAAGCCTGTGCTCCAACAGATAAACTGTTGATGTGTTAACTACGATGGGAGCTAT
 TCCTGCAGGGTTCAGGCCTTCCACGCTCTCACAGCTTCTGGAGGAAGGGAATCAATTTGAGCAAATTA
 TCTTACAACAGAGCTCATGCCTTCACTGCTTCCAGAGATCTGATGTGGGATGTACAGAAGGCA
 CTATTAGTTCGAGACCAAGTCTGATTTTCTGACATTATGGAGCTGTAATAATGATTCCTCTTCC
 AGGAATGAGCATACAGGTTCTCAGCAGACATGTACGCCTCTGTCTATTTGATGGTAATAAGGTTCTGAGC
 AACATTCATACAGTCAGAGCCACATGGCAACCTAAAAAGCCAAAAACATGGACCTTTTCTCCCCAGGTTA
 CTCGCATCTTACCATGTTTGCTTGTGATGGTATTGCTTTATCAGGTCTAATTCTGCATCTCCAGATCTTGG
 AATATTATTTGAACTTGGAAATTTCTTATATTGCAATTCAACTGGTGAAGAGGAGAGTTAAGCTGTGGC
 TGGGTGTTTCTTAACTTTTGTGATGCCAGTGGAGTTCTATTCCAGCAAAAACTTATGAGCTTTTCTTGA
 ATGGTGGTACTCCTTATGAAAAGGTATTGAAGTGGACCCTTCAATATCCAGAAGAGCACACGGCAGTGT
 TTTCTACCAGATTATGACAATGAGAAGGCAGCCTCAACTTCTAGTGAAGTGAAGTCTTGAACAGAAGA
 TCAAGAAATGACTAAGTCTACTGCCAGAAACATTAATTGAAATATGTGTTCTATTCACTTGTGATAT
 TTTATCGACAAATCTTGGAGATGTGCTCCTGAAAGACAGGATGAGCTTGCAAAGTACTGATTTAATTAG
 CCATCCCATGCTGGCCACCTTCCCATGCTCTTGGAGCAGCCTGATGTGATGGATGCTCTCAGGAGTTCCG
 TGGGCTGGAAAAGAAAGCACATTAAGAAAGATCAGAGAAGAGAGACAAAGAGTTTCTGAAAGTCCACGTTTC
 TCCTGGTTTACCATGACTGCGTGTCTCCACTTCTCCACTCCACACGCCTACCCCCATTAGGTGGGAGAG
 AGAAGAGACTGAGACTGCACGGTGGAAAGTTATCACTGACTTCTTAAGCAAAACCAAGAAAACAGGGC
 GCCCTCCAAGCTCTGCTGTACCAGACGGAGTTCATGAACCTTTTACCTTTTCCAGAGCAGACCTATGACT
 TCTTGGGTGAAATGAGAAAAGTGCAGTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC222151 representing NM_000272
 Red=Cloning site Green=Tags(s)

MLARRQRDPLQALRRRNQELKQQVDSLLSESQLKEALEPNKRQHIYQRCIQLKQAI DENKNALQKLSKAD
 ESAPVANYNQRKEEEHTLLDKL TQQLQLAVTISRENI TEVGAPTEEEEESESEDSGSGEEEDAE EEE
 EEEKENESHKWTGEEYIAVGDFTAQQVGD LTFKKGEILLVIEKKPDGWWIAKDAKNGEGLVPRTYLEPY
 S EEEEQESSEEGSEEDVEAVDETADGA EVKQRTDPHWSAVQKAI SEAGIFCLVNHVSFCYLIVLMRNRM
 ETVEDTNGSETGFRAWNVQSRGRIFLVSKPVLQQINTVDVLT TTMGAIPAGFRPSTLSQLLEEGNQFRANY
 FLQPELMPSQLAFRDLMWDATEGTIRSRPSRISLIL TLWSCKMIPLPGMSIQVL SRHVRCLFDGNKVL S
 NIHTVRATWQPKPKTWTFSPQVTRILPCLLDGDC FIRSNSASPD LGILFELGISYIRNSTGERGELSCG
 WVF LKLF D ASGVPIPAKTYELFLNGGTPYEKGIEVDPSISRRAHGSV FYQIMTMRQPQLLVKLRSLNRR
 SRNVLSLLPETLIGNMCSIHLLIFYRQILGDVLLKDRMSLQSTD LISHPMLATFPMLLEQPDVMDALRSS
 WAGKESTLKRSEKRDKEFLKSTFLLVYHDCVLP LLHSTRLP PFRWAE EETETARWKVITDFLKQNQENQG
 ALQALLSPDGVHEPFDLSEQTYDFLGEMRKN AV

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8040_a11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_000272

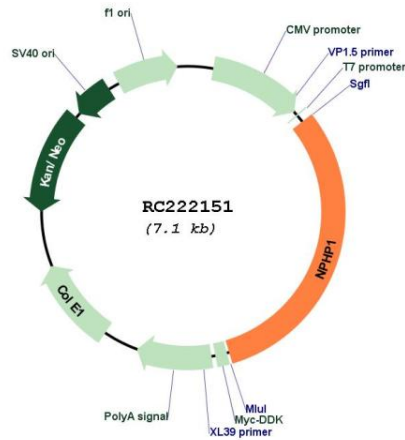
ORF Size: 2199 bp

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](#)

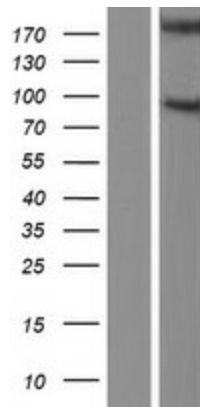
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<ol style="list-style-type: none">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_000272.5
RefSeq Size:	3731 bp
RefSeq ORF:	2202 bp
Locus ID:	4867
UniProt ID:	O15259
Cytogenetics:	2q13
Domains:	SH3
Protein Families:	Druggable Genome
MW:	83.2 kDa
Gene Summary:	<p>This gene encodes a protein with src homology domain 3 (SH3) patterns. This protein interacts with Crk-associated substrate, and it appears to function in the control of cell division, as well as in cell-cell and cell-matrix adhesion signaling, likely as part of a multifunctional complex localized in actin- and microtubule-based structures. Mutations in this gene cause familial juvenile nephronophthisis type 1, a kidney disorder involving both tubules and glomeruli. Defects in this gene are also associated with Senior-Loken syndrome type 1, also referred to as juvenile nephronophthisis with Leber amaurosis, which is characterized by kidney and eye disease, and with Joubert syndrome type 4, which is characterized by cerebellar ataxia, oculomotor apraxia, psychomotor delay and neonatal breathing abnormalities, sometimes including retinal dystrophy and renal disease. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]</p>

Product images:



Circular map for RC222151



Western blot validation of overexpression lysate (Cat# [LY424831]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222151 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).