

Product datasheet for **MR216552**

Nphp4 (NM_153424) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Nphp4 (NM_153424) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Nphp4
Synonyms: 4930564O18Rik; nmf192
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >MR216552 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGGTGACTGGCACAGAGCCTTACCCAGAACACACTGGTCCCTCCCCACCCACAGAGAGCGAGGCAGC
TTGGGAAGGAGTCCACGGCATTCCAGTGCATCCTGAAGTGGCTTGACGGGCCACTCATTAAAGCAGGGAAT
CCTAGACATGCTGTCGGAGCTTGAATGCCATCTCGGAGTGACCCTCTTCGATGTACCTACAACATTTT
TTTGGGAGGACGTGAAAACACAGTGAAGCCCAATCAACCCCTAAGCAGCCACCTAGGATCACCT
TCAATGAGCCCTTGTACTTCCACACGACCTTGAGCCACCCAGCATCGTGGCTGTGGTAGAAGTGGTCAC
CGAAGGCAGGAAGAGGGACGGCACCCCTGCAGCTGCTGTCTGTGGGTTTGGAAATCTTCGCATCTTTGGC
AATAAGCCAGAATCTCCCACCTCTGCAGCCAGGACAAACGGTTGAGGCTGTATCATGGCACCCCAAGAG
CCCTCTGCACCCACTTCTCCAGGATCCCATAGAACAGAACAAAGTTCATGAGGCTGATGGAGAATTGTAG
CCTGCAGTACACCCTGAAGCCACACCCACCCCTGGAGCCCGCTTCCACCTGCTCCCTGAGAACCCTCTG
GTGCTGGTTTCCAGCAGATCCCTGGCCTTCTCCCGCCTCATGGGGACACGGGTGATGCCCTGCGGAAGC
CTCGCTTCCAGAAGCCCACCACATGGCACTTAGATGACCTTTCTTACCCTGTACCTTCCCTGGAGAA
GTTTGAGGAGGAACCTGTGCAGCTGCTCATCAGCGACCGGGAGGGGTGCGCCTGCTGGACAGCGGCACC
CTCGAGGTCCTGGAGCGGCCTGCACGCTGCGTCCACAACGGGCTGGGCTTCGTGCAGAGGCCACAGG
TGGTTGTGCTTGTGCCTGAGATGGACGTGGCCTTGACCCGCTCGGCCAGCTTCAGCAGGAAAATCAGTGC
CTCTTCCAAGAACAGCTCTGAAATCAGGCTCTAGTTTTGAGAAGCCACCTGCGACTCCCGGAGATGGTC
AGTCAACCAGCCTTCGCCATCGTCTTCCAGCTGGAGTACGTGTTCAACAGCCCTCTGGAGCGGATGGCG
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CGATCTGGAAGTGGGCCAGGAAAGGTGACGCTGCCTTTCAGGGTGGGTTTCAGCAAACCCCTCACGC
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AAAGCTCTTCCAAGCCCCCTCTTCAGCCCCGGACAGCTCTCAGTCCCCAGAGGGTCCCCAGCTCCAGGC
CGAATCTGTATTAGAGAGCAGGGTCTCTCACCTGGAAGCCGACCTGAGCCAGCCGGCCTCGCTCCAGGGA
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CCTATCCTTCTCGGAGGACCTACCGCTGCACAGTACCGTCCCAGCTGTTGCGCTTCAAGGAGGACTC
CTTCCAGGTGGCGGGAGGAGAGACCTACCCATCGGCTGCGGTTCTGCCAAGTGGCAGCGCCGGGCAG
GAGGAGATCCTGATCTACATCAATGACCACGAGGACAAGAATGAGGAGACATTCTGTGTGAAGTCTCT
ACCAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA

Protein Sequence:

>MR216552 protein sequence
 Red=Cloning site Green=Tags(s)

MGDWHRAFTQNTLVPPHPQRRARQLGKESTAFQCILKWLGDGPLIKQGI LDMLSELECHLRVTLFDVTYKHF
 FGRTWKT TVKPTNQPSKQPPRITFNEPL YFHTT LSHPSI VAVVEVVTEGRKR DGTQLL SCGF GILRIFG
 NKPESPT SAAQDKRLRL YHGT PRALLHPLL QDPIEQNKF MRLMENC SLQYTLKPHPPLEPAFHLLPENLL
 VSGFQQIPGLL PPHGDTGDALRKPRFQKPTTWHLDDLFFTL YPSLEKFEELVQLLISDREGVGLLDSGT
 LEVLERRLHVCVHNLG FVQRPVVVLVPEMDVAL TRSASF SRKISASSKNSSGNQALVLRSHLR LPEMV
 SHPAFAIVFQLEYVFNPSGADGGASSPTSISSVACMHMVRWAVWNPDL E VGP GKVTLPLQGGVQQNPSR
 CLVYKVP SASMSSEEVKQVESGTIQFQFSLSSDGPTEHANGPRVGRSSRKMPASPSGTPAPAARDLAAT
 QDSPVGPGLSLSQLTASPLSPALQSSSKPPLQPPDSSQSPEGPQLQAESVLESRVSHLEADLSQPASLQG
 TPAVEHLQELPFTPLHAPIVVGAQTRSSRSQLSRAAMVLLQSSGFPEILDASQQPVEAVNPIDPVRFN PQ
 KEESDCLRGNEIVLQFLAFSRAAQDCGTPWPQT VYFTFQFYRFPETT PRLQLVKLDGTGKSGSGLSH
 ILVPINKDGSFDAGSPGLQLRYMVDPGFLKPGEQRFWAHYLAAQTLQVDVWDGDSLLLIGSAGVQMKHLL
 RQGRPAVQVSHELEVVA TEYEQEMMAVSGDVAGFGSVKPIGVHTVVKGRLLHLTLANVGHACEPRARGSNL
 LPPSRSRVINSNDGASFFSGGSLIPGGPKRKR VVQAQRLADVSELAAMLLTHTRAGQQPAAGQEADAV
 HKRKLERMRLVRLQEAGGSDSRRISLLAQHSVRAQHSRDLQVIDAYRERTKAESIAGVLSQAITTHHTL
 YATLGTAEFFEFALKNPHTQHTVAIEIDSPELSIILDSQEWRYFKEATGLHTPLEEDMFHLRGLAPQL
 YLRPRETAHIPLKFQFSVGLAPTQAPAEVITEKDAESGPLWKCSAMPTKHAKV LFRVETGQLIAVLCL
 TVEPQPHVVDQVFRFYHPEL TFLKKAIRLPPWHTLPGAPVGMPEGEDPPVHVRCSDPNVICEAQNVPGE P
 RDVFLKVASGSPSEIKDFVVIYADRWLAVPVQ TWQVCLHSLQRVDVSCVAGQLTRL SLVLRGTQTVRKV
 RAFTSHPQELKTDPA GFVLP PHGVQDLHVGVRPRRAGSRFVHLNLVDIDYHQLVASWL VCLSCRQPLIS
 KAFEITMAAGDEKGTNKRITYTNPYPSRRTYRLHSDRPELLRFKEDSFQVAGGETYITIGLRF LPSGSAGQ
 EEILIIYINDHEDKNEETF CVKVLVYQ

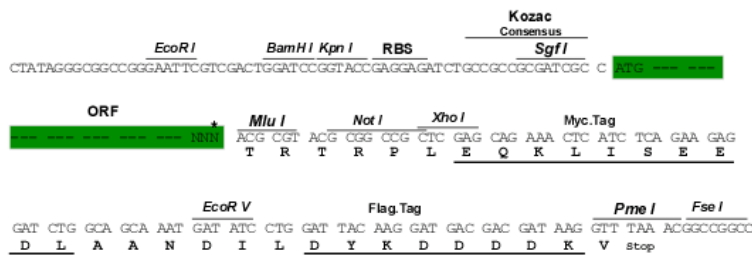
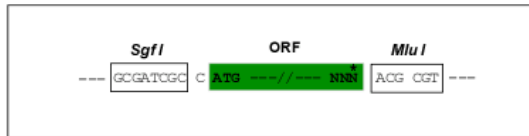
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfi-MluI

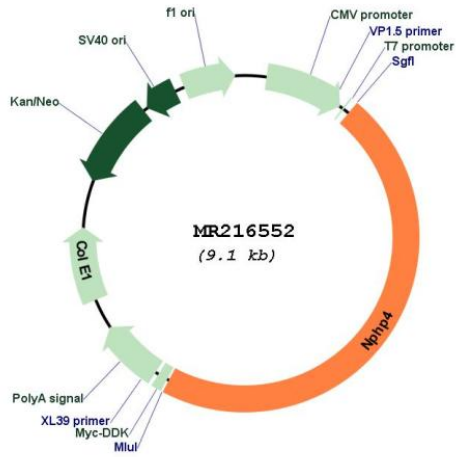
Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_153424

ORF Size: 4278 bp

OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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_153424.2 , NP_700473.2
RefSeq Size:	5047 bp
RefSeq ORF:	4278 bp
Locus ID:	260305
UniProt ID:	P59240
Cytogenetics:	4 E2
MW:	157.3 kDa

Gene Summary:

Involved in the organization of apical junctions; the function is proposed to implicate a NPHP1-4-8 module. Does not seem to be strictly required for ciliogenesis (By similarity). Required for building functional cilia. Involved in the organization of the subapical actin network in multiciliated epithelial cells. Seems to recruit INT to basal bodies of motile cilia which subsequently interacts with actin-modifying proteins such as DAAM1 (By similarity). In cooperation with INVS may downregulate the canonical Wnt pathway and promote the Wnt-PCP pathway by regulating expression and subcellular location of disheveled proteins. Stabilizes protein levels of JADE1 and promotes its translocation to the nucleus leading to cooperative inhibition of canonical Wnt signaling (By similarity). Acts as negative regulator of the hippo pathway by association with LATS1 and modifying LATS1-dependent phosphorylation and localization of WWTR1/TAZ (By similarity).[UniProtKB/Swiss-Prot Function]