

Product datasheet for MR201050

Npc2 (NM_023409) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Npc2 (NM_023409) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Npc2
Synonyms: 2700012J19Rik; AA408070; AU045843; HE1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR201050 representing NM_023409
 Red=Cloning site Blue=ORF Green=Tags(s)

CTATAGGGCGGCCGGAATTCGTCTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCGTTTTCTGGCCGCCACGATCCTGCTGCTGGCGCTGGTCTGCTGCCAGCCAGGCGGAGCCCTGCCT
 TCAAGGACTGCGGCTCTAAGGTGGGAGTTATAAAGGAGGTGAATGTGAGCCCATGTCCCACCGATCCCTG
 TCAGCTGCACAAAGGCCAGTCTACAGTGTCAACATCACCTTTACCAGCGGCACTCAGTCCCAGAACAGC
 ACGGCCTTGGTCCACGGCATCCTGGAAGGGATCCGGGTCCCTTCCCTATTCTGAGCCTGACGGTTGTA
 AGAGTGAATCAACTGCCCCATCCAGAAAGACAAGGTCTACAGCTACCTGAATAAGCTTCCGGTGAAGAA
 TGAATACCCTCTATAAACTGGTGGTGAATGAAACTTGAAGATGACAAAAAGAATAATCTCTTCTG
 TGGGAGATCCCAGTTCAGATCACAAGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCTGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR201050 representing NM_023409
 Red=Cloning site Green=Tags(s)

MRFLAATILLLALVAASQAEPLHFKDCGSKVGVIKEVNVSPCPTDPCQLHKGQSYSVNITFTSGTQSQNS
 TALVHGILEGIRVPFPIPEPDGCKSGINCP IQDKVYSYLNKLPVKNEYPSIKLVVEWKLEDDKNNLFC
 WEIPVQITS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI



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Cloning Scheme:



ACCN: NM_023409

ORF Size: 447 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_023409.4](#), [NP_075898.1](#)

RefSeq Size: 3278 bp

RefSeq ORF: 450 bp

Locus ID: 67963

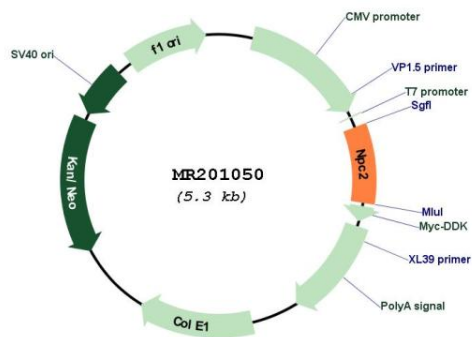
UniProt ID: [Q9Z0J0](#)

Cytogenetics: 12 D1

MW: 16.9 kDa

Gene Summary: Intracellular cholesterol transporter which acts in concert with NPC1 and plays an important role in the egress of cholesterol from the lysosomal compartment (PubMed:12591949, PubMed:17018531, PubMed:21315718, PubMed:26296895). Unesterified cholesterol that has been released from LDLs in the lumen of the late endosomes/lysosomes is transferred by NPC2 to the cholesterol-binding pocket in the N-terminal domain of NPC1. May bind and mobilize cholesterol that is associated with membranes. NPC2 binds cholesterol with a 1:1 stoichiometry. Can bind a variety of sterols, including lathosterol, desmosterol and the plant sterols stigmasterol and beta-sitosterol (By similarity). The secreted form of NCP2 regulates biliary cholesterol secretion via stimulation of ABCG5/ABCG8-mediated cholesterol transport (PubMed:21315718).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR201050