

Product datasheet for **MG201050**

Npc2 (NM_023409) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Npc2 (NM_023409) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Npc2
Synonyms: 2700012J19Rik; AA408070; AU045843; HE1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG201050 representing NM_023409
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCGTTTTCTGGCCGCCACGATCCTGCTGCTGGCGCTGGTTCGCTGCCAGCCAGGCGGAGCCCTGCACT
 TCAAGGACTGCGGCTCTAAGGTGGGAGTTATAAAGGAGGTGAATGTGAGCCCATGTCCCACCGATCCCTG
 TCAGCTGCACAAAGGCCAGTCCTACAGTGTCAACATCACCTTTACCAGCGGCACTCAGTCCCAGAACAGC
 ACGGCCTTGGTCCACGGCATCCTGGAAGGGATCCGGGTCCCTTCCCTATTCTGAGCCTGACGGTTGTA
 AGAGTGGAACTCACTGCCCCATCCAGAAAGACAAGGTCTACAGCTACCTGAATAAGCTTCCGGTGAAGAA
 TGAATACCCTCTATAAACTGGTGGTGAATGGAACCTGAAGATGACAAAAGAATAATCTCTTCTGCG
 TGGGAGATCCCAGTTCAGATCACAAGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG201050 representing NM_023409
 Red=Cloning site Green=Tags(s)

MRFLAATILLLLALVAASQAEPLHFKDCGSKVGVIKEVNVSPCPTDPCQLHKGQSYSVNITFTSGTQSQNS
 TALVHGILEGIRVPFPIPEPDGCKSGINCPIQKDKVYSYLNKLPVKNEYPSIKLVVEWKLEDDKNNLFC
 WEIPVQITS

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

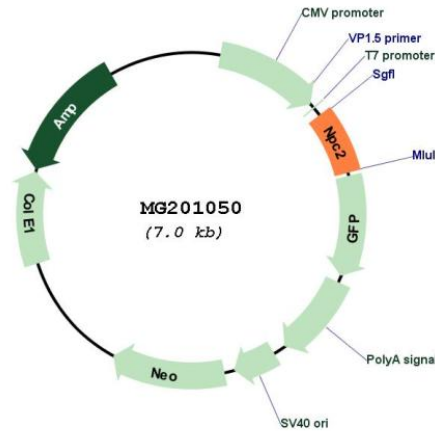


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Cloning Scheme:



Plasmid Map:



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:	<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:	<u>NM_023409.4</u> , <u>NP_075898.1</u>
RefSeq Size:	3278 bp
RefSeq ORF:	450 bp
Locus ID:	67963
UniProt ID:	<u>Q9Z0J0</u>
Cytogenetics:	12 D1
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]