

## Product datasheet for RC220597

### NPC1L1 (NM\_013389) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	NPC1L1 (NM_013389) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NPC1L1
Synonyms:	LDLCQ7; NPC11L1; SLC65A2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC220597 representing NM_013389 Red=Cloning site Blue=ORF Green=Tags(s)

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**Protein Sequence:** >RC220597 representing NM\_013389  
 Red=Cloning site Green=Tags(s)

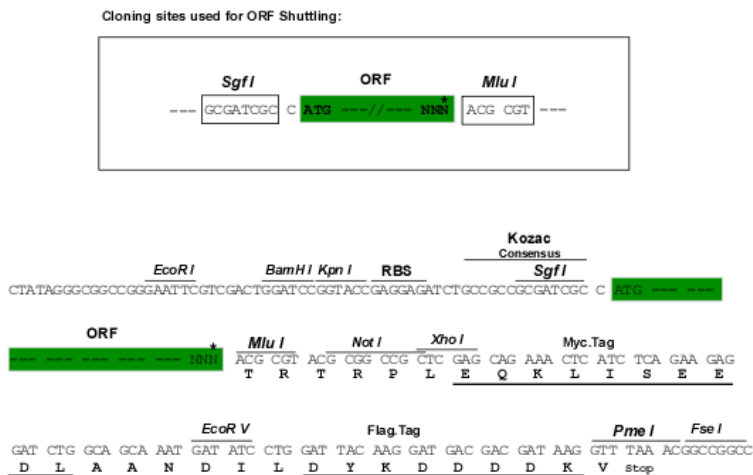
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 PYTITNVFYEQYL TILPEGLFMLS LCLVPTFAVSCLLLGLDLRSGLL N L L S I V M I L V D T V G F M A L W G I S Y  
 NAVSLINLVS AVGMSVEFVSHITRSFAISTKPTWLERAKEATISMGS AVFAGVAMTNLP G I L V L G L A K A Q  
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 NIYVNHSFEGSIKAGAI SNFLPNNGRQF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8119\\_d12.zip](https://cdn.origene.com/chromatograms/mk8119_d12.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_013389

**ORF Size:** 4077 bp

**OTI Disclaimer:** 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](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_013389.3](#)

**RefSeq Size:** 5066 bp

**RefSeq ORF:** 4080 bp

**Locus ID:** 29881

**UniProt ID:** [Q9UHC9](#)

**Cytogenetics:** 7p13

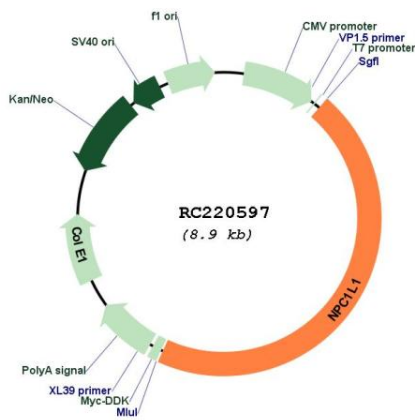
**Protein Families:** Druggable Genome, Transmembrane

**MW:** 149.2 kDa

**Gene Summary:**

The protein encoded by this gene is a multi-pass membrane protein. It contains a conserved N-terminal Niemann-Pick C1 (NPC1) domain and a putative sterol-sensing domain (SSD) which includes a YQRL motif functioning as a plasma membrane to trans-Golgi network transport signal in other proteins. This protein takes up free cholesterol into cells through vesicular endocytosis and plays a critical role in the absorption of intestinal cholesterol. It also has the ability to transport alpha-tocopherol (vitamin E). The drug ezetimibe targets this protein and inhibits the absorption of intestinal cholesterol and alpha-tocopherol. In addition, this protein may play a critical role in regulating lipid metabolism. Polymorphic variations in this gene are associated with plasma total cholesterol and low-density lipoprotein cholesterol (LDL-C) levels and coronary heart disease (CHD) risk. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2009]

**Product images:**



Circular map for RC220597