

Product datasheet for RC214546

NPL (NM_030769) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NPL (NM_030769) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NPL
Synonyms:	C1orf13; C112; NAL; NPL1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC214546 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCTTCCCAAAGAAGAACTTCAGGGTCTTGTGGCTGCAACCATCACGCCAATGACTGAGAATGGAG
AAATCAACTTTTCAGTAATTGGTCAGTATGTGGATTATCTTGTGAAAGAACAGGGAGTGAAGAACATTTT
TGTGAATGGCACAACAGGAGAAGGCCTGTCCTGAGCGTCTCAGAGCGTCGCCAGGTTGCAGAGGAGTGG
GTGACAAAAGGAAGGACAAGCTGGATCAGGTGATAATTCACGTAGGAGCACTGAGCTTGAAGGAGTCAC
AGGAAGTGGCCCAACATGCAGCAGAAATAGGAGCTGATGGCATCGCTGTCATTGCACCGTTCTTCTCAA
GCCATGGACCAAAGATATCCTGATTAATTTCTAAAGGAAGTGGCTGCTGCCGCCCTGCCCTGCCATTT
TATTACTATCACATTCCTGCCTTGACAGGGTAAAGATTCGTGCTGAGGAGTTGTTGGATGGGATTCTGG
ATAAGATCCCCACCTTCCAAGGGCTGAAATTCAGTGATACAGATCTTTAGACTTCGGGCAATGTGTTGA
TCAGAATCGCCAGCAACAGTTTGCTTCTTTTGGGGTGGATGAGCAACTGTTGAGTGTCTGGTGATG
GGAGCAACTGGAGCAGTGGGCAGTACCTATAACTACCTGGGAAAAAGACAAACCAGATGTTGGAGGCTT
TTGAACAAAAGGACTTCTTTAGCCCTGAACTATCAGTTTTGTATCCAGAGATTTATCAACTTTGTTGT
CAAAGTGGTTTTGGAGTGTACAGACCAAGCCATCATGACTCTGGTCTCTGGGATCCAATGGGCCCA
CCCCGGTCCACTGCAGAAAGCCTCCAGGGAGTTTACTGATAGTGTGAAGCTAAACTGAAGAGCCTGG
ATTTCTTTCTTCACTGATTTAAAGGATGGAACTTGGAAAGCTGGTAGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC214546 protein sequence
Red=Cloning site Green=Tags(s)

MAFPKKKLQGLVAATITPMTENGEINFSVIGQYVDYLVKEQGKNI FVNGTTGEGLSLSVSERRQVAEEW
 VTKGDKLDQVI IHV GALSLKESQELAQAHA EIGADGIAVIAPFFLK PWT KDIL INFLKEVAAAAPALPF
 YYYHIPAL TGVKIRAEELLDGILDKIPTFQGLKFSDTDLDFGQCVDQNRQQQFAFLFGVDEQLLSALVM
 GATGAVGSTYNYL GKKTNQMLEAFEQKDFSLALNYQFCIQRFIN FVVKLGFVGSQTKAIMTLVSGIPMGP
 PRLPLQKASREFTDSAEAKLKS LDFLSF TDLK DGNLEAGS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6443_a06.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_030769

ORF Size: 960 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_030769.2](#)

RefSeq Size: 2867 bp

RefSeq ORF: 963 bp

Locus ID: 80896

UniProt ID: [Q9BXD5](#)

Cytogenetics: 1q25.3

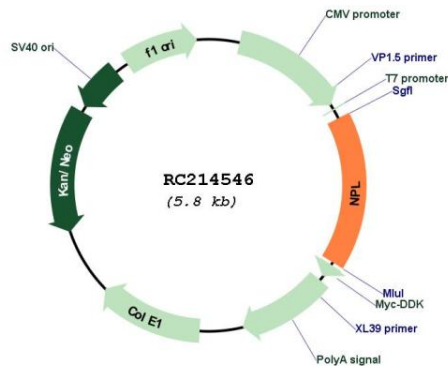
Domains: DHDPS

Protein Pathways: Amino sugar and nucleotide sugar metabolism

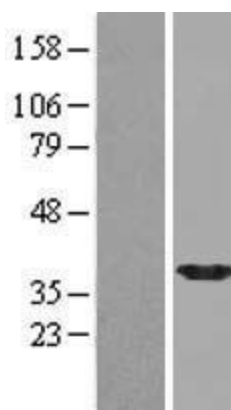
MW: 35.2 kDa

Gene Summary: This gene encodes a member of the N-acetylneuraminase lyase sub-family of (beta/alpha)(8)-barrel enzymes. N-acetylneuraminase lyases regulate cellular concentrations of N-acetylneuraminic acid (sialic acid) by mediating the reversible conversion of sialic acid into N-acetylmannosamine and pyruvate. A pseudogene of this gene is located on the short arm of chromosome 2. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Jan 2011]

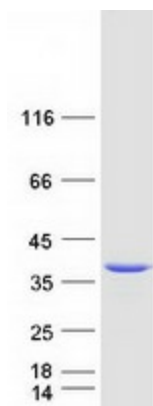
Product images:



Circular map for RC214546



Western blot validation of overexpression lysate (Cat# [LY410719]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214546 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NPL protein (Cat# [TP314546]). The protein was produced from HEK293T cells transfected with NPL cDNA clone (Cat# RC214546) using MegaTran 2.0 (Cat# [TT210002]).