

Product datasheet for **RC221538**

PANK1 (NM_148977) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PANK1 (NM_148977) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PANK1
Synonyms:	PANK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC221538 representing NM_148977
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGTTGAAACTCGTCGGTGGCGGTGGCGGCAGGACTGGGCATGCTCAGTGGCGGGACCAGTCTGGGAG
 GCGAGGAAGCCGGTTTTGAAGTCGCGCGCCTGGGGATCAGGGGAAGCGGGCGGGAGCCCGGCTG
 GGGGTGCGCGGGGATCCCCGATTCCGCGCCCGGGCTGGCGTGCTCCAGGCCGGCCGCTGGGGCCGGCG
 CGCGGGGGCAGGGCGCAGAGGAGTGGGGAGTCCGCGAGGAGGGGAGGAGCGCCGGTTCCGCCATC
 CCCAGGCGCCGGCTCTCGGGTCTGAATCGGAAGCCGAGGAGGATCCGGGAAATAAAGACGCCGGA
 GAATGACCTCCAGCGAGGCCCTGAGCCGGGGCCGCGCACAGCCCGCCAGCCCGGCATGGGCGAC
 CGCAGCGGGCAGCAGGAGCGCTCGTCCCACACTCCAGGGGCCCGTGGCACCAGCGCCGCCGCTG
 TGAACGGGCTGTCACAACGGTTCCATCCGCCCCAGTCCAGCCGCCACGCTGTCAGCCGGGGTCC
 AGTGGGCGCAGCGAGCGGGCGCCAGCGCTCCGCTCTGCCGAGCTGCAGCCGACGCACTGCTC
 CCTCAGCATGACTCCCCGCCAAGAAATGCCGGCTGCGGAGGAGGATGGACTCGGGGAGAAAGAAGGC
 CGCCATCCCATGGTTTGGCATGGACATCGGTGGAACGCTGGTTAAATTGGTGTATTTTCAGCCGAAGGA
 TATTACAGCCGAAGAGGAGCAAGAGGAAGTGGAGAACCTGAAGAGCATCCGGAAGTATTTGACTTCTAAT
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 AAGGGAACCTGCACTTCCGCTTTCCAGCTGTGCTATGCACAGTTTCATTAGATGGGACGCGAGAA
 GAATTTCTAGCCTTCAACACCCTCTGTGCCACAGGAGCGGGCTTCAAATTCGAAGAGGACTTC
 AGAATGATTGCTGACCTGCAGCTGCATAAACTGGATGAACTGGACTGTCTGATTACGGGCTGCTTATG
 TCGACTCTGTTGGCTTCAACGGCAAGCCAGAATGTTACTATTTTGAATAAATCCACAAATCTGAATTGTG
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 TCGCCCGGCCACATTGGTACCATCACAACAACATTGGCTCCATTGCTCGGATGTGCGCTTGAATGA
 GAACATAGACAGATTGTTGTTTGTGAAATTTCTCAGAAATCAATATGGTCTCCATGAAGCTGCTGGCA
 TATGCCATGGATTTTGGTCAAAGGACAACCTGAAAGCTCTGTTTTTGAACATGAGGGTATTTTGGAG
 CCGTTGGGCACTGTTGAACTGTTCAAATGACTGATGACAAG

ACGCGTACGCGGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC221538 representing NM_148977
 Red=Cloning site Green=Tags(s)

MLKLVGGGGQDWACSVAGTSLGGEEAAFEVARPGDQGKAGGSPGWGCAGIPDSAPGAGVLQAGAVGPA
 RGGQGAEEVGESAGGGEERRVRHPQAPALRLLNRKPQGGSGEIKTPENDLQRGRLSRGPRTAPPAPGMGD
 RSGQQERSVPHSPGAPVGTSAAVNGLLHNGFHPPPVPQPHVCSRGPVGGSDAAPQLPLPELQPQPLL
 PQHDSPAKKCRLRRRMDSGRKNRPPFPWFMDIGGTLVKLVYFEPKIDITAEQEEVENLKSIRKYLTSN
 TAYGKTGIRDVHLELKNLTMGRKGNLHFRFPSCAMHRFIQMGSEKNFSSLHTLTCATGGGAFKFEEDF
 RMIADLQLHKLDELDELQGLLYVDSVGFNGKPECYFFENPTNPELQKKPYCLDNPYPMLLVNMGSGVS
 ILAVYSKDNKRVGTSLGGGTFLLGLCCLLTGCETFEAALEMAAKGDSTNVDKLVKDIYGGDYERFGLQG
 SAVASSFGNMMSKEKRDSISKEDLARATLVITNINIGSIARMCALNENIDRVVFGVNFRLINMVMKLLA
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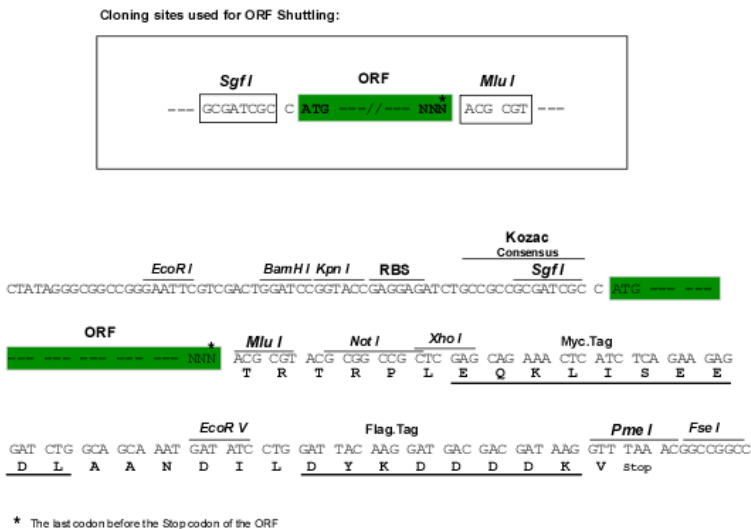
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8042_g01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_148977

ORF Size: 1794 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_148977.2](#), [NP_683878.1](#)

RefSeq Size: 3367 bp

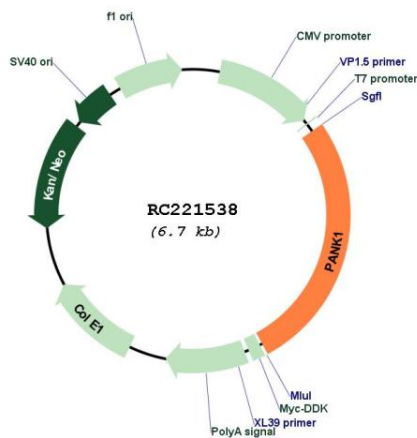
RefSeq ORF: 1386 bp

Locus ID: 53354

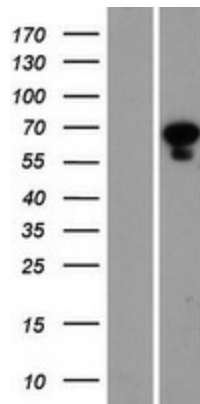
UniProt ID: [Q8TE04](#)
 Cytogenetics: 10q23.31
 Protein Families: Druggable Genome
 Protein Pathways: Metabolic pathways, Pantothenate and CoA biosynthesis
 MW: 64.2 kDa

Gene Summary: This gene encodes a member of the pantothenate kinase family. Pantothenate kinases are key regulatory enzymes in the biosynthesis of coenzyme A (CoA). The encoded protein catalyzes the first and rate-limiting enzymatic reaction in CoA biosynthesis and is regulated by CoA through feedback inhibition. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. This gene and an intronic miRNA on the same strand are co-regulated by the tumor suppressor p53 (see PMID 20833636). [provided by RefSeq, Apr 2011]

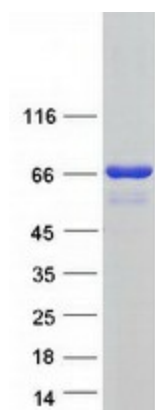
Product images:



Circular map for RC221538



Western blot validation of overexpression lysate (Cat# [LY407715]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221538 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PANK1 protein (Cat# [TP321538]). The protein was produced from HEK293T cells transfected with PANK1 cDNA clone (Cat# RC221538) using MegaTran 2.0 (Cat# [TT210002]).