

Product datasheet for **RG221538**

PANK1 (NM_148977) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PANK1 (NM_148977) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PANK1
Synonyms:	PANK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG221538 representing NM_148977
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTTGAAACTCGTCGGTGGCGGTGGCGGGCAGGACTGGGCATGCTCAGTGGCGGGACCAGTCTGGGAG
 GCGAGGAAGCCGGTTTGAAGTCGCGCGCCCTGGGGATCAGGGGAAGCGGGCGGGAGCCCGGCTG
 GGGGTGCGCGGGGATCCCCGATTCCGCGCCCGGGCTGGCGTGCTCCAGGCCGGCCGCTGGGGCCGGCG
 CGCGGGGGCAGGGCGCAGAGGAGTGGGGAGTCCGCGAGGAGGAGGGAGGAGCGCCGGTTCCGCATC
 CCCAGGCGCCGGCTCTCGGGTCTGAATCGGAAGCCGCAAGGAGGATCCGGGAAATAAAGACGCCGGA
 GAATGACCTCCAGCGAGGCCCTGAGCCGGGGCCGCGCACAGCCCGCCAGCCCCGGCATGGGCGAC
 CGCAGCGGGCAGCAGGAGCGCTCGTCCCGCACTCCAGGGGCCCGTGGCACCAGCGCCGCCGCTG
 TGAACGGGCTGTCACAACGGTTCCATCCGCCCCAGTCCAGCCGCCACGCTGTCAGCCGGGTCC
 AGTGGGCGCAGCGAGCGGCCCGCCAGCGCTCCGCTCCTGCCGAGCTGCAGCCGACGCACTGCTC
 CCTCAGCATGACTCCCCGCCAAGAAATGCCGGCTGCGGAGGAGGATGGACTCGGGGAGAAAGAACAGGC
 CGCCATCCCATGGTTTGGCATGGACATCGGTGGAACGCTGGTTAAATTGGTGTATTTTCAGCCGAAGGA
 TATTACAGCCGAAGAGGAGCAAGAGGAAGTGGAGAACCTGAAGAGCATCCGGAAGTATTTGACTTCTAAT
 ACTGCTTATGGGAAAAGTGGATCCGAGACGTCCACCTGGAAGTAAAAACCTGACCATGTGTGGACGCA
 AAGGGAACCTGCACTTCCCGTTTCCAGCTGTGCTATGCACAGGTTTATTGATGGGACGCGAGAA
 GAATTTCTAGCCTTACACCACCTCTGTGCCACAGGAGGCGGGCTTCAAATTCGAAGAGGACTTC
 AGAATGATTGCTGACCTGCAGCTGCATAAACTGGATGAACTGGACTGTCTGATTCAGGCTGCTTTATG
 TCGACTCTGTTGGCTTCAACGGCAAGCCAGAATGTTACTATTTTGAATAATCCACAAATCCTGAATTG
 TCAAAAAAGCCGTAAGCTTGTGATAACCCATACCCATGTTGCTGGTTAACATGGGCTCAGGTGTCAGC
 ATTCTAGCCGTGACTCCAAGGCAACTATAAAAGAGTTACAGGACCAGTCTTGAGGTGGAACATTCC
 TAGGCCTATGTTGCTGACTGGTTGTGAGACCTTTGAAGAAGCTCTGGAAATGGCAGCTAAAGGCGA
 CAGCACCAATGTTGATAAACTGGTGAAGGACATTTACGGAGGAGACTATGAACGATTTGGCTTCAAGGA
 TCTGCTGTAGCATCAAGCTTTGGCAACATGATGAGTAAAGAAAAGCGAGATTCCATCAGCAAGGAAGACC
 TCGCCCGGCCACATTGGTACCATCACCACAACATTGGCTCCATTGCTCGGATGTGCGCTTGAATGA
 GAACATAGACAGATTGTTTGTGAAATTTCTCAGAAATCAATATGGTCTCCATGAAGCTGCTGGCA
 TATGCCATGGATTTTGGTCAAAGGACAACCTGAAAGCTCTGTTTTTGAACATGAGGGTATTTTGGAG
 CCGTTGGGCACTGTTGAACTGTTCAAATGACTGATGACAAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG221538 representing NM_148977
 Red=Cloning site Green=Tags(s)

MLKLVGGGGQDWACSVAGTSLGGEEAAFEVARPGDQGKAGGSPGWGCAGIPDSAPGAGVLQAGAVGPA
 RGGQGAEEVGESAGGGEERRVRHPQAPALRLLNRKPQGGSGEIKTPENDLQRGRLSRGPRTAPPAPMGD
 RSGQQERSVPHSPGAPVGTSAAAVNLGLHNGFHPPPVPQPHVCSRGPVGGSDAAPQLPLPELQPQPLL
 PQHDSPAKKCRLRRRMDSGRKNRPPFPWFMDIGGTLVKLVYFEPKDIATAEEEQEEVENLKSIRKYLTSN
 TAYGKTGIRDVHLELKNLTMCGRKGNLHFRFPSCAMHRFIQMGSEKNFSSLHTLTCATGGGAFKFEEDF
 RMIADLQLHKLDELDCLIQGLLYVDSVGFNGKPECYFENPTNPELQKKPYCLDNPYPMLLVNMGSGVS
 ILAVYSKDNKRVGTSLGGTFLGLCCLLTGCETFEAALEMAAKGDSTNVDKLVKDIYGGDYERFGLQG
 SAVASSFGNMMSKEKRDSISKEDLARATLVITNIGSIARMCALNENIDRVVFGNFLRINMVMKLLA
 YAMDFWSKQLKALFLEHEGYFGAVGALLELFKMTDDK

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

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:	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
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]