

Product datasheet for **RG221519**

PANK1 (NM_138316) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PANK1 (NM_138316) 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)
ORF Nucleotide Sequence:	>RG221519 representing NM_138316 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAAGCTTATAAATGGCAAAAAGCAAACATTCCCATGGTTTGGCATGGACATCGGTGGAACGCTGGTTA
AATTGGTGTATTTGAGCCGAAGGATATTACAGCCGAAGAGGAGCAAGAGGAAGTGGAGAACCTGAAGAG
CATCCGGAAGTATTTGACTTCTAATACTGCTTATGGGAAAAGTGGATCCGAGACGTCCACCTGGAAGT
AAAAACCTGACCATGTGTGGACGCAAAGGAACCTGCACCTCATCCGCTTCCAGCTGTGCTATGCACA
GGTTCATTGAGATGGGCAGCGAGAAGAAGTCTCTAGCCTTACACCACCCTCTGTGCCACAGGAGGCGG
GGCTTTCAAATTCGAAGAGGACTTCAGAATGATTGCTGACCTGCAGCTGCATAAACTGGATGAACTGGAC
TGTCTGATTGAGGCGCTGCTTATGTCGACTCTGTTGGCTTCAACGCAAGCCAGAAATGTTACTATTTTG
AAAATCCACAAAATCCTGAATTGTGCAAAAAAGCCGACTGCCTTGATAACCCATACCCTATGTTGCT
GGTTAACATGGGCTCAGGTGTCAGCATTCTAGCCGTGACTCCAAGGACAACATAAAAAGAGTTACAGGG
ACCAGCTTTGGCAACATGATGAGTAAAGAAAAGCGAGATTCATCAGCAAGGAAGACCTCGCCCGGGCCA
CATTGGTACCATACCAACAACATTGGCTCCATTGCTCGGATGTGCGCGTTGAATGAGAACATAGACAG
AGTTGTGTTTGTGGAAATTTCTCAGAATCAATATGGTCTCCATGAAGCTGCTGGCATATGCCATGGAT
TTTTGGTCAAAGGACAAGTAAAGCTCTGTTTTTGGAAACATGAGGGTATTTTGGAGCCGTTGGGGCAC
TGTTGGAAGTGTCAAATGACTGATGACAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG221519 representing NM_138316
Red=Cloning site Green=Tags(s)

MKLLINGKKQTFPWFQMDIGGTLVKLVYFEPKDIATEEEQEEVENLKSIRKYLTSNTAYGKTGIRDVHLEL
 KNLTMCGRKGNLHFIKRFPCAMHRFIQMGSEKNFSSLHTTLCATGGGAFKFEEDFRMIADLQLHKLDEL
 CLIQGLLYVDSVGFNGKPECYFFENPTNPPELQKPKPYCLDNPYPMLLVNMGSGVSI LAVYSKDNYKRV
 TSFGNMMSKEKRDSISKEDLARATLVITINIGSIARMCALNENIDRVVFGNFLRINMVMKLLAYAMD
 FWSKGQLKALFLEHEGYFGAVGALLELFKMTDDK

TRTRPLE - GFP Tag - V

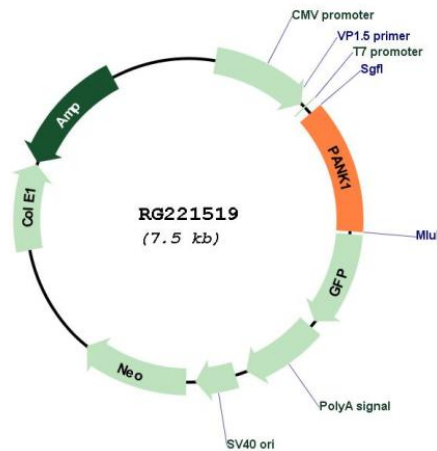
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_138316

ORF Size: 942 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:	NM_138316.4
RefSeq Size:	2525 bp
RefSeq ORF:	945 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]