OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC217228

PANK2 (NM_024960) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PANK2 (NM_024960) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PANK2
Synonyms:	C20orf48; HARP; HSS; NBIA1; PKAN
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC217228 representing NM_024960
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCTGCTTTTATTCAAATGGGCAGAGATAAAAACTTCTCGAGTCTCCACACTGTCTTTTGTGCCACTG
GAGGTGGAGCGTACAAATTTGAGCAGGATTTTCTCACAATAGGTGATCTTCAGCTTTGCAAACTGGATGA
ACTAGATTGCTTGATCAAAGGAATTTTATACATTGACTCAGTCGGATTCAATGGACGGTCACAGTGCTAT
TACTTTGAAAACCCTGCTGATTCTGAAAAGTGTCAGAAGTTACCATTTGATTTGAAAAATCCGTATCCTC
TGCTTCTGGTGAACATTGGCTCAGGGGTTAGCATCTTAGCAGTATATTCCAAAGATAATTACAAACGGGT
CACAGGTACTAGTCTTGGAGGAGGAACTTTTTTTGGTCTCTGCTGTCTTCTTACTGGCTGTACCACTTTT
GAAGAAGCTCTTGAAATGGCATCTCGTGGAGATAGCACCAAAGTGGATAAACTAGTACGAGATATTTATG
GAGGGGACTATGAGAGGTTTGGACTGCCAGGCTGGGCTGTGGCTTCAAGCTTTGGAAACATGATGAGCAA
GGAGAAGCGAGAGGCTGTCAGTAAAGAGGACCTGGCCAGAGCGACTTTGATCACCATCACCAACAACATT
GGCTCAATAGCAAGAATGTGTGCCCTTAATGAAAACATTAACCAGGTGGTATTTGTTGGAAATTTCTTGA
GAATTAATACGATCGCCATGCGGCTTTTGGCATATGCTTTGGATTATTGGTCCAAGGGGCAGTTGAAAGC
ACTTTTTTCGGAACACGAGGGTTATTTTGGAGCTGTTGGAGCACTCCTTGAGCTGTTGAAGATCCCG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

View online »

Protein Sequence:

>RC217228 representing NM_024960
Red=Cloning site Green=Tags(s)

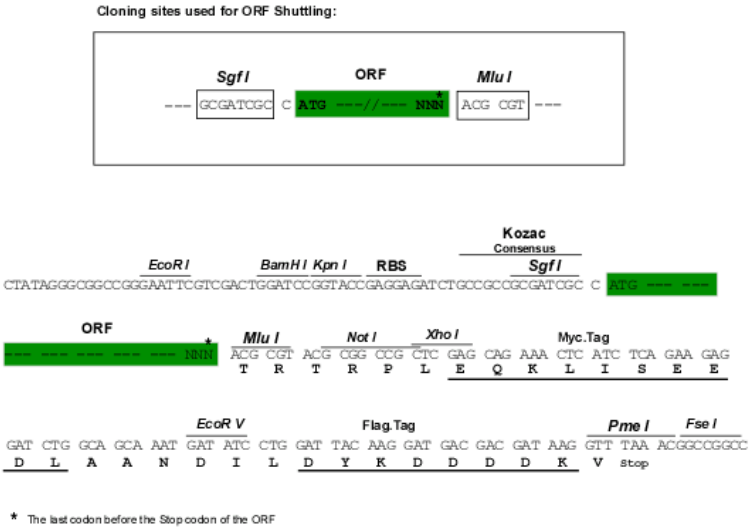
MPAFIQMGRDKNFSSLHTVFCATGGGAYKFEQDFLTIGDLQLCKLDELDCLIKGILYIDSVGFNGRSQCY
YFENPADSEKCQKLPFDLKNPYPLLLVNIGSGVSILAVYSKDNYKRVTGTSLGGGTFFGLCCLLTGCTTF
EEALEMASRGDSTKVDKLVRDIYGGDYERFGLPGWAVASSFGNMMSKEKREAVSKEDLARATLITITNNI
GSIARMCALNENINQVVFVGNFLRINTIAMRLLAYALDYWSKGQLKALFSEHEGYFGAVGALLELLKIP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6706_f11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_024960

ORF Size: 837 bp

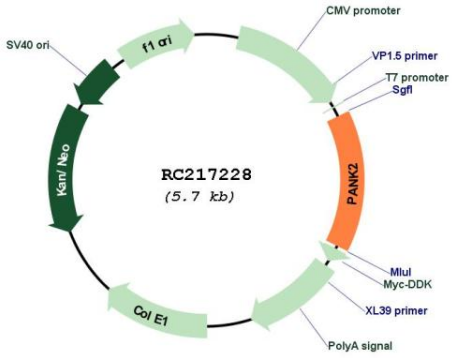
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

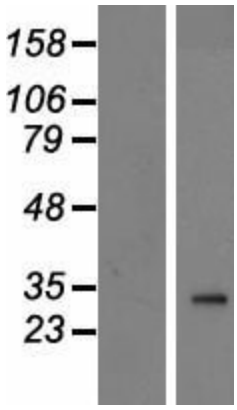
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_024960.6
RefSeq Size:	1711 bp
RefSeq ORF:	840 bp
Locus ID:	80025
UniProt ID:	Q9BZ23
Cytogenetics:	20p13
Domains:	Fumble
Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Pantothenate and CoA biosynthesis
MW:	30.6 kDa
Gene Summary:	This gene encodes a protein belonging to the pantothenate kinase family and is the only member of that family to be expressed in mitochondria. Pantothenate kinase is a key regulatory enzyme in the biosynthesis of coenzyme A (CoA) in bacteria and mammalian cells. It catalyzes the first committed step in the universal biosynthetic pathway leading to CoA and is itself subject to regulation through feedback inhibition by acyl CoA species. Mutations in this gene are associated with HARP syndrome and pantothenate kinase-associated neurodegeneration (PKAN), formerly Hallervorden-Spatz syndrome. Alternative splicing, involving the use of alternate first exons, results in multiple transcripts encoding different isoforms. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC217228



Western blot validation of overexpression lysate (Cat# [LY410958]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217228 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).