

Product datasheet for SC111841

PANK2 (NM_024960) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PANK2 (NM_024960) Human Untagged Clone
Tag:	Tag Free
Symbol:	PANK2
Synonyms:	C20orf48; HARP; HSS; NBIA1; PKAN
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC111841 sequence for NM_024960 edited (data generated by NextGen Sequencing)

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ATGCCTGCTTTTATTCAAATGGGCAGAGATAAAAACTTCTCGAGTCTCCACACTGTCTTT
TGTGCCACTGGAGGTGGAGCGTACAAAATTTGAGCAGGATTTTCTACAATAGGTGATCTT
CAGCTTTGCAAACGGATGAACTAGATTGCTTGATCAAAGGAATTTTATACATTGACTCA
GTCGGATTCAATGGACGGTACAGTGCTATTACTTTGAAAACCTGCTGATTCTGAAAAG
TGTGAGAAGTTACCATTTGATTTGAAAAATCCGTATCCTCTGCTTCTGGTGAACATTGGC
TCAGGGGTTAGCATCTTAGCAGTATATTCAAAGATAATTACAAACGGGTCACAGGTA
AGTCTTGGAGGAGGAACTTTTTGGTCTCTGCTGTCTTCTTACTGGCTGTACCACTTTT
GAAGAAGCTCTTAAAATGGCATCTCGTGGAGATAGCACCAAAGTGGATAAACTAGTACGA
GATATTTATGGAGGGGACTATGAGAGGTTTGGACTGCCAGGCTGGGCTGTGGCTTCAAGC
TTTGAAAACATGATGAGCAAGGAGAAGCGAGAGGCTGTCAGTAAAGAGGACCTGGCCAGA
GCGACTTTGATCACCATACCAACAACATTGGCTCAATAGCAAGAATGTGTGCCCTTAAT
GAAAACATTAACCAGGTGGTATTTGTTGGAAATTTCTTGAGAATTAATACGATCGCCATG
CGGCTTTTGGCATATGCTTTGGATTATTGGTCCAAGGGGCAGTTGAAAGCACTTTTTTCG
GAACACGAGGGTTATTTTGGAGCTGTTGGAGCACTCCTTGAGCTGTTGAAGATCCCGTGA
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Clone variation with respect to NM_024960.4



[View online »](#)

5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_024960 unedited TGTATACGACTCCTATAGGCGGCCGCAATTCGGCACGAGGGCGAGAAGGAATCCGACGC TGGGGGGCTTGCTCGGGCGGCAGCGACTGCTGCTGCGGATGGGAGCGGGCCGGCTCGGCG CGCCCATGGAGCGCCACGGCAGGGCTTCCGCCACCTCCGTCTCGTGGCTGGGGAGCAGG CGGCCGGGACCCGCGNAGGGCGGCGCAGGAGCCACTGCGGCGCCGGGCGAGCAGCGCT CGGTGCCCCGGTCCGGGCTCGGCTGAGGGCACGAGGCGGGATCGACTGGGCTTTACA GCGGCCACCTCGGTCTCCCGCCAGCGGTGCGAAAGCCTGAGGAAAAAGCGGCCGCTTT TTCATGGTTTTGACTGGATATCGGTGGAACCTCGGTCAAGCTGGTATATTTTGAACCCA AAGACATCACTGCTGAAGAAGAAGAGGAAGAAGTGAAAGTCTTANAAGCATTCCGAAAGT ACCTGACCTCCAATGTGGCTTATGGGTCTACAGGCATTGGGACGTGCACCTCGAGCTGA AGGACCTGACTCTGTGTGGACGCAAAGGCAATCTGCACTTTATACGCTNTCCCACTCATG ACATGCCTGCNTTTATCAAAATGGGCAGAGATAAAAACTTCTCGAGTCTCCACACTGTC TTTTGTGCCACTGGAGGTGGAGCGTACACATTTGAGCAGGATTTTCTCACAATAGGTGAT CTTCAGCTTTGCAAAGTGGATGAACTAGATTGCTTGATCAAAGGAATTTATACATTGACT CCAGTCGATTCCATGGACGGTACAGTGTATTACCTTTGAAACCTGCTGATTCTGAAAA GTGTCAAAGTTACCATCTGATTTGAAAAATCCGCATCCCTGCGTTTGGGGACATTGCCTCA GGTACATCTTACCGATAT</p>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_024960 unedited NNTTTACTCTGNNACCGCGCCGCAATCTANGATCGAGTTTTTTTTTTTTTTTTTTTTGAAA AAAACATGTTTTACAGTAAGTTCACACACAGGCTTAATGCAAACCAGAGTAATGCACAGA TGATTGCCAAGACCATATTGACAAATTGTGATTAGATTATAACGCATAGTAGCCTGCCTT ACATTCAGCAAGTTCAAACAGGACACAAAACAGTCAACTGAACACAGAGCAGCTCTCTT CAGAAGCACTTCCAATGAGTGATGCAGAGATTTCAAAAATACAAAGCAGGCAACTTATAT ACAGCAAATCCTCACACTGCCTGGACATGTGCCACTTTTTTTGTTGTTTTAATATATTTT TCCTTCCTGGTTGCTAATTTAGACTGAATTCTTAAGGATTTATCTTGATGACTTAGAAAA ATACACCTGTCCTTTCTCACTTTGTTTCAGGTAGTACAGTCATGAAATTGAGTAAGTCTC TAAAAAAATGAAAGTCCACAGATCCCATTGTGGAAGGTTTCAGGAACCCCTCCCAGGT AATGATCACGGGATCTTCAACAGCTCAAGGAGTGTCCAACAGCTCCAAAATAACCCTCG TGTTCCGAAAAAAGTGGCTTTCAACTGCCCTTGGACCAATAATCCAAAGCATATGCCAAA AGCCGATGGCGATCGTATTAATTCTCAAGAAATTTCCAACAAATACCACCTGGTTAATG TTTTCATTAAGGCACACATTCTTGTCTATTGAGCCAATGTTGTTGGTGATGGTGATCAAA GTCGCTCTGGCCAGTCTCTTTACTGACAGCCTCTCGCTTCTCCTTGCTCATCATGTTT CCAAAGCTTGAAGCCACAGCCAGCTGGCAGTCCAACCTCTCATATCCCCTCCATAATAT CTCGNACTAATTATCCACTTTGGNGT</p>
Restriction Sites:	NotI-NotI
ACCN:	NM_024960
Insert Size:	1950 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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_024960.3](#), [NP_079236.3](#)

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

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]

Transcript Variant: This variant (3) has an alternate first exon, and uses a downstream translation initiation site, compared to variant 1. The resulting protein (isoform 2) lacks an N-terminal segment compared to isoform 1, resulting in a shorter protein that shares identity through the C-terminus. Isoform 2 is not expressed in mitochondria. Variants 2, 3 and 7 encode isoform 2. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.