

Product datasheet for **SC118456**

PKN1 (NM_002741) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PKN1 (NM_002741) Human Untagged Clone
Tag:	Tag Free
Symbol:	PKN1
Synonyms:	DBK; PAK-1; PAK1; PKN; PKN-ALPHA; PRK1; PRKCL1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL6</u>
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

Fully Sequenced ORF:

```

>OriGene ORF sequence for NM_002741 edited
ATGGCCAGCGACGCCGTGCAGAGTGAGCCTCGCAGCTGGTCCCTGCTAGAGCAGCTGGGC
CTGGCCGGGGCAGACCTGGCGGCCCCCGGGGTACAGCAGCAGCTGGAGCTGGAGCGGGAG
CGGCTGCGGGCGGAAATCCGCAAGGAGCTGAAGCTGAAGGAGGGTGTGAGAACCTGCGG
CGGGCCACCACTGACCTGGGCCGACCTGGGCCCGTAGAGCTGCTGCTGCGGGGCTCC
TCGGCCCGCTCGACCTGCTGCACCAGCAGCTGCAGGAGCTGCACGCCACGTGGTGCTT
CCGGCCCGCGGCCACCCACGATGGCCCCAGTCCCCCTGGTGGGGTGGCCCCACCTGC
TCGGCCCAACCTGAGCCGCGTGGCGGGCTGGAGAAGCAATTGGCCATTGAGCTGAAG
GTGAAGCAGGGGGCGGAGAACATGATCCAGACCTACAGCAATGGCAGCACCAAGGACCGG
AAGCTGCTGCTGACAGCCAGCAGATGTTGCAGGACAGTAAGACCAAGATTGACATCATC
CGCATGCAACTCCGCCGGGCGTGCAGGCCGGCCAGCTGGAGAACCAGGCAGCCCCGGAT
GACACCAAGGGAGTCTGACCTGGGGGTGTGGAGCTGCGCATCGAAGAGCTGCGGCAC
CACTTCCGAGTGGAGCACGCGGTGGCCGAGGGTGCCAAGAACGTACTGCGCTGCTCAGC
GCTGCCAAGGCCCGGACCGCAAGGCAGTCAGCGAGGCCAGGAGAAATTGACAGAATCC
AACCAGAAGCTGGGGTCTGCGGGAGGCTCTGGAGCGGAGACTTGGGGAGCTGCCCGCC
GACCACCCCAAGGGGCGGCTGCTGCGAGAAGAGCTCGCTGCGGCCCTCCCGCTGCCTTC
AGCACCCGCTGGCCGGGCCCTTCCCGCCACGCACTACAGCACCTGTGCAAGCCCGG
CCGCTCACAGGGACCCTGGAGGTACGAGTGGTGGGCTGCAGAGACCTCCCAGAGACCATC
CCGTGGAACCCTACCCCTCAATGGGGGACCTGGGACCCAGACAGCCGCCCCCTTC
CTGAGCCGCCAGCCGGGGCCTTTACAGCCGAAGCGGAAGCCTCAGTGGCCGGAGCAGC
CTCAAAGCAGAAGCCGAGAACACCAGTGAAGTCAGCACTGTGCTTAAGCTGGATAACACA
GTGGTGGGGCAGACGCTTTGGAAGCCATGTGCCCAATGCCTGGGACCAGAGCTTCACT
CTGGAGCTGGAAGGGCACGGGAACTGGAGTTGGCTGTGTTCTGGCGGGACCAGCGGGGC
CTGTGTGCCCTCAAATTCCTGAAGTTGGAGGATTTCTTGACAATGAGAGGCATGAGGTG
CAGCTGGACATGGAACCCAGGGTGCCTGGTGGCTGAGGTACCTTCCGCAACCCTGTC
ATTGAGAGGATTCTCGGCTCCGACGGCAGAAGAAAATTTCTCCAAGCAGCAAGGGAAG
GCGTTCACAGCTGCTAGGCAGATGAACATCGATGTCGCCACGTGGGTGCGGCTGCTCCGG
AGGCTCATCCCCAATGCCACGGGCACAGGCACCTTTAGCCCTGGGGCTTCTCCAGGATCC
GAGGCCCGGACCAGGGTACATATCGGTGGAGAAGCTGAACCTCGGCACTGACTCGGAC
AGCTCACCTCAGAAGAGCTCGCGGGATCCTCCTCCAGCCATCGAGCCTGAGCTCCCC
ATCCAGGAATCCACTGCTCCCGAGCTGCCTTCGGAGACCAGGAGACCCAGGCCCGCC
CTGTGCAGCCCTCTGAGGAAGTACCTCTGACCTCGAAGATTTCAAGTTCCTGGCGGTG
CTGGGCCGGGGTCAATTTGGGAAGGTGCTCCTCTCCGAATTCGGCCCAAGTGGGGAGCTG
TTCCGCATCAAGGCTCTGAAGAAAGGGGACATTGTGGCCCGAGACGAGGTGGAGAGCCTG
ATGTGTGAGAAGCGGATATTGGCGGCAAGTACCAGTGGCGGACACCCCTTCTGGTGAAC
CTCTTCGGCTGTTCCAGACACCGGAGCAGTGTGCTTCTGAGCCCCGTGCCATCTTTAT
TCCGCCTGCGTGGTGTGGGCCACAGTTTCTTACGAACACAAGATCGTCTACAGGGAC
CTGAAGTTGGACAATTTGCTCCTGGACACCGAGGGTACGTCAAGATCGCAGACTTTGGC
CTCTGCAAGGAGGGGATGGGCTATGGGGACCGGACCAGCACATTCTGTGGGACCCCGGAG
TTCTGGCCCTGAGGTGCTGACGGACAGTCTGACACGGAGCTGTGGACTGGTGGGA
CTGGGTGTGCTGCTACAGATGCTGGTTGGCGAGTCCCATTCCAGGGGATGATGAG
GAGGAGGTCTTCGACAGCATCGTCAACGACGAGGTTGCTACCCCGCTTCTGTGCGCC
GAAGCCATCGGCATCATGAGAAGGCTGCTTCGGAGGAACCCAGAGCGGAGGCTGGGATCT
AGCGAGAGAGATGCAGAAGATGTGAAGAAACAGCCCTTCTCAGGACTCTGGGCTGGAA
GCCCTGTTGGCCCGGCGCTGCCACCGCCCTTTGTGCCACGCTGTCGGCCGACCGGAC
ATCAGCAACTTCGACGAGGATTCACCGGGGAGGCCCCACACTGAGCCCGCCCGGAC
GCGCGGCCCTCACAGCCGCGGAGCAGGACGCTTCTGGACTTCGACTTCGTGGCCGGG
GGCTGCTAG
    
```

5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_002741 unedited ATAAACACCCGCCCCGTTGGCGCAAAGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAG CAGAGCTCATTTAGGTGACACTATAGAATACAAGTACTTGTCTTTTTGCAGCGGCCGC GAATTCGGCACGAGGGGCGCACGCGCTCCTCTGGCCGCCCCCTCCCTCCGCGCGGGGAC CCCTGGCGGGCGGAGGAGACATGGCCAGCGACGCCGTGCAGAGTGAGCCTCGCAGCTG GTCCCTGCTAGAGCAGCTGGGCCTGGCCGGGCGAGACCTGGCGGCCCGGGGTACAGCA GCAGCTGGAGCTGGAGCGGGAGCGGCTGCGGCGGAAATCCGCAAGGAGCTGAAGCTGAA GGAGGGTCTGAGAACCTGCGGCGGGCCACCACTGACCTGGGCCGAGCCTGGGCCCCGT AGAGCTGCTGCTCGGGGCTCCTCGCGCCGCTCGACCTGCTGCACCAGCAGCTGCAGGA GCTGCACGCCACGTGGTGTCTCCGACCCGGCGGCCACCCACGATGGCCCCAGTCCCC TGGTGGGGTGGCCCCACCTGCTCGGCCACCACTGAGCCGCTGGCGGGCCTGGAGAA GCAGTTGGCCATTGAGCTGAAGGTGAAGCAGGGGGCGGAGAACATGATCCAGACCTACAG CAATGGCAGCACCAAGGACCGGAAGCTGCTGCTGACAGCCAGCAGATGTTGCAGGACAG TAAGACCAAGATTGACATCATCCCCATGCAACTCCGCCGGGCGCTGCAGGCCGGGACGCT GGAGACCAGGACCCCCGAGACACCCAGGGATCCTGAACTGGGGGCTGTGAACTGCC CATCGAAAAACTGCGGCACCACTCCGAGTGAAGCACCCGGTGGCCAGGTGCCACAAC GTACTGGCCTGGTTAAGGCTGCC</p>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_002741 unedited NCAATATGTGTACCGCGCCGCTTTCTANGATCGAGTTTTTTTTTTTTTTTTTCCGGCAA ATCCCAAGGCCTTTTTAAAACTAAGAGCTCTCGGGCAGGGGCAGGGGCAGGGGCAGGGG AGGGGGCTAGCAGCCCCGGCCACGAAGTCAAGTCCAGGAAGGCTGCCTGCTCCGCGGC TGTGAGGGGCGCGCTGCGGGGCGGGCTCAGTGTGGGGCCTCCCGGTGAACCTCTC GTCGAAGTTGCTGATGTCGGTGCGGCCGACAGCGTGGGCACAAAGGGCGGTGGCAGGCG CCGGGCAACAGGGCTTCCCAGCCAGAGTCTGAAGAAGGGCTGTTTCTTACATCTTC TGCATCTCTCTGCTAGATCCCAGCCTCCGCTCTGGGTTCTCCGAAGCAGCCTTCTCAT GATGCCGATGGCTTCGGCCGACAGGAAGCGGGGTAGCGAACCTCGTCTTGACGATGCT GTCGAAGACCTCCTCATCATCCCCTGGGAATGGGACTCGCAACCAGCATCTCGTA GAGCAGCACACCCAGTCCCACAGTCCACAGCTCGCGTGTACGACGTGTCGTCAGCAC CTCAGGGGCCAGGAACCTCCGGGTCACAGAAATGTGCTGGTCCGGTCCCATAGCCCAT CCCCTCCTTGACAGGCCAAAGTCTGCGATCTTACGTAGCCCTCGGTGTCCAGGAGCCA ATTGTCCAACCTCAGGTCCTGTAGACGATCTTGTGTTGTTGAAGAACTGTAGGCCAG CACCACGAGGCCGAATAAAAGATGGCACGGGGCTCANAGAACACGTCGCTGTGGATGTG CAGCATCCAGTCCCCACGGCCGAGTACTCCATCACGAAGCACACTTGTTCCGGTGTCT TTGAAACC</p>
Restriction Sites:	NotI-NotI
ACCN:	NM_002741
Insert Size:	3000 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_002741.3](#), [NP_002732.3](#)

RefSeq Size: 3097 bp

RefSeq ORF: 2829 bp

Locus ID: 5585

UniProt ID: [Q16512](#)

Cytogenetics: 19p13.12

Domains: pkinase, HR1, S_TK_X, TyrKc, S_TKc

Protein Families: Druggable Genome, Protein Kinase

Gene Summary: The protein encoded by this gene belongs to the protein kinase C superfamily. This kinase is activated by Rho family of small G proteins and may mediate the Rho-dependent signaling pathway. This kinase can be activated by phospholipids and by limited proteolysis. The 3-phosphoinositide dependent protein kinase-1 (PDPK1/PDK1) is reported to phosphorylate this kinase, which may mediate insulin signals to the actin cytoskeleton. The proteolytic activation of this kinase by caspase-3 or related proteases during apoptosis suggests its role in signal transduction related to apoptosis. Alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq, Jul 2008]
Transcript Variant: This variant (2) uses an alternate exon at the 5' end compared to variant 1, which includes a part of the coding region. The resulting isoform (2) has a distinct and shorter N-terminus, as compared to isoform 1.