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Product datasheet for SC323427

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:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF within SC323427 sequence for NM_002741 edited (data generated by NextGen Sequencing)

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ATGGCCAGCGACGCCGTGCAGAGTGAGCCTCGCAGCTGGTCCCTGCTAGAGCAGCTGGGC
CTGGCCGGGGCAGACCTGGCGGCCCCCGGGGTACAGCAGCAGCTGGAGCTGGAGCGGGAG
CGGCTGCGGCGGGAAATCCGCAAGGAGCTGAAGCTGAAGGAGGGTGCTGAGAACCTGCGG
CGGGCCACCACTGACCTGGGCCGCAGCCTGGGCCCCGTAGAGCTGCTGCTGCGGGGCTCC
TCGCGCCGCCTCGACCTGCTGCACCAGCAGCTGCAGGAGCTGCACGCCCACGTGGTGCTT
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CACTTCCGAGTGGAGCACGCGGTGGCCGAGGGTGCCAAGAACGTACTGCGCCTGCTCAGC
GCTGCCAAGGCCCCGGACCGCAAGGCAGTCAGCGAGGCCCAGGAGAAATTGACAGAATCC
AACCAGAAGCTGGGGCTGCTGCGGGAGGCTCTGGAGCGGAGACTTGGGGAGCTGCCCGCC
GACCACCCCAAGGGGCGGCTGCTGCGAGAAGAGCTCGCTGCGGCCTCCTCCGCTGCCTTC
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ATTGAGAGGATTCCTCGGCTCCGACGGCAGAAGAAAATTTTCTCCAAGCAGCAAGGGAAG
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GCGTTCCAGCGTGCTAGGCAGATGAACATCGATGTCGCCACGTGGGTGCGGCTGCTCCGG
AGGCTCATCCCCAATGCCACGGGCACAGGCACCTTTAGCCCTGGGGCTTCTCCAGGATCC
GAGGCCCGGACCACGGGTGACATATCGGTGGAGAAGCTGAACCTCGGCACTGACTCGGAC
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ATCAGCAACTTCGACGAGGAGTTCACCGGGGAGGCCCCCACACTGAGCCCGCCCCGCGAC
GCGCGGCCCCTCACAGCCGCGGAGCAGGCAGCCTTCCTGGACTTCGACTTCGTGGCCGGG
GGCTGCTAG

Clone variation with respect to NM_002741.3
1931 a=>t;2701 g=>a

5' Read Nucleotide Sequence:

>OriGene 5' read for mutant NM_002741 unedited
ACCCCCTAACAGCAACGGGCGGTAGGCGCGTACGGTGGGAGGCCTATTAAGAGAGCCCATACAGGAGACA
CCATAGAATACAAGCTACTCGTTCTCCTTGCAGCGGCCGCGAATCCGGCACGAGGGGCGCACGCGCGCTC
CTCTGGCCGCCCCTCCCTCCGCGCGGGGACCCCTGGCGGGCGGCAGGAGGACATGGCCAGCGACGCCGTG
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TGCTTCCCAACCCGGCGGCACCCAGAATGGCCCCGTTCCCTGGTGCGCGGTGGGCCCACCTGGTTGGGCC
CCAACTGAACCCCGTGGGGGGGCCTGGAGAAACCTTGGGCATTGAGCTGAAAGTGAAACACGGGGCGGGG
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ACACTATACACGATTGTATCATCTCATGCTGCTCTCCGGCGCTCTGGCGGCGCATGTGAACCACGCACAC
CCAGACACCAGAGTCTCAACTGGCTTGTGACTGCCTTGAACTCGCCACTTCATGGAACCGTGCCAGTGCA
ACATCTCGCTTTAGCGTCAGGCCGACCTAGGATACAAGCCAGGGATTGCCAATTCCCGACCTGCTTCGGA
ACTGGACGAACTTGGAA

Kinase Domain Sequence:

>SC323427 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI refernce protein database, you can confirm the presence of the kinase-deficient mutation
ATCCKGACGTGTGGGCGGGGTCATTTTGGGAGGTGCTCCTCTCCGAATTCCGGCCCAGTGGGGAGCTGTT
CGCCATCATGGCTCTGAAGAAAGGGGACATTGTGGCCCGAGACGAGGTGGAGAGCCTGATGTGTGAGAAG
CGGATATTGGCGGCAGTGACCAGTGCGGGACACCCCTTCCTGGTGAACCTCTTCGGCTGTTTCCAGACAC
CGGAGCACGTGTGCTTCGTGATGGAGTACTCGGCCGGTGGGGACC

Restriction Sites: Please inquire

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).
OTI Annotation:	This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." Cell. 2008 May p536-548.
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.