

Product datasheet for **MC217433**

Pdpk1 (NM_001080773) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pdpk1 (NM_001080773) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Pdpk1
Synonyms:	Pdk1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >MC217433 representing NM_001080773
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGCCAGGACCACCAGCCAGCTGTATGACGCTGTGCCCATTCAGTCCAGTGTGGTGCTATGTTCTCTGCC
CATCCCCATCAATGGTGAGGTCCCAGACTGAGCCCGTTTCGTCCTGGCATTCCCTAGTGGTGTAGCAG
GCAGGGATCCACCATGGATGGCACCACAGCTGAAGCCCGACCAAGCACCACCCCTTGCAGCAGCACCCCT
GCCAGCTGCCACCACAGCCTCGCAAGAAACGCCCTGAAGACTTCAAGTTTGGGAAAATTCTTGGCGAGG
GCTCTTTTTCAACAGTTGTTCTGGCCGAGAAGTGGCCACTTCCAGAGAATATGCTATTAATAATTCTGGA
GAAACGTCATATTATAAAAGAAAACAAAGTTCGGTATGTAAGTACAGAGAGAGATGTGATGTCACGCCTG
GATCACCCCTTCTTTGTAAACTTTATTTTACATTTTCAGGACGACGAAAAGCTGTATTTTGGCCTTAGTT
ATGCCAAAAATGGAGAGCTACTTAAATACATCCGCAAAATTTGGCTCATTGATGAGACCTGTACCCGGTT
TTACACGGCTGAGATTGTGTCTGCTTTAGAGTACTTGCATGGCAAGGGCATCATTACAGAGACCTTAA
CCAGAAAACATTTTGTAAATGAAGACATGCACATCCAGATCACAGATTTTGGAAACAGCAAAAGTGTAT
CCCCAGAGAGCAAAACAGCCAGGGCCAACCTCATTGTAGGAACAGCACAGTATGTTTCTCCAGAGCTGCT
CACAGAGAAGTCGGCGTGTAAAAGTTTACAGCCTTTGGCCCTTGGATGTATAATCTATCAGCTCGTGGCA
GGACTCCCACCATTACAGACCCGGGAATGAATATCTTATATTTTCAAGATCATTAAAGCTGGAATATCATT
TCCCAGAAAAATCTTCCCTAAGGCTAGAGATCTTGTGGAAAACTCTTGGTTTTAGATGCCACAAAGCG
TTTAGGCTGTGAAGAGATGGAAGGTACGGCCTCTCAAAGCTCATCCATTCTTTGAGACCATCACTTGG
GAGAATTTGCACCAGCAGACACCTCCGAAGCTCACAGCTTACCTACCAGCCATGTCAGAGGATGATGAAG
ACTGCTATGGCAACTACGACAATCTCTGAGCCAGTTTGGCTTCATGCAGGTGTCATCCTCCTCCTCTTC
CCTCCTGTCTACGGTGGAAACAGCCTGCCCCAGAGGTCGGGCAGCAACATAGAGCAGTACATCCAT
GATTTGGACACTAACTCTTTTGAAGTACAGTACAGTTTTTTCAGAAAGATGAAAAAGGTTGTTATTGGAAA
AGCAAGCCGGTGGAAACCTTGGCACCAGTTTGTAGAAAATAATCTAATATTAATAATGGGTCCAGTGGA
TAAGCGAAAGGTTTATTTGCAAGACGACGACAGTTATTACTCACAGAAGGGCCACATTTATATTATGTT
GATCCTGTCAACAAGGCTTGAAGGTGAAATCCCATGGTCACAAGAAGTCCGACCAGAAGCCAAGAATT
TAAAACCTTCTTGTCCACACGAT**TAA**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-Mlul

ACCN: NM_001080773

Insert Size: 1569 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_001080773.2](#), [NP_001074242.1](#)

RefSeq Size: 1783 bp

RefSeq ORF: 1569 bp

Locus ID: 18607

Cytogenetics: 17 A3.3

Gene Summary: Serine/threonine kinase which acts as a master kinase, phosphorylating and activating a subgroup of the AGC family of protein kinases. Its targets include: protein kinase B (PKB/AKT1, PKB/AKT2, PKB/AKT3), p70 ribosomal protein S6 kinase (RPS6KB1), p90 ribosomal protein S6 kinase (RPS6KA1, RPS6KA2 and RPS6KA3), cyclic AMP-dependent protein kinase (PRKACA), protein kinase C (PRKCD and PRKCZ), serum and glucocorticoid-inducible kinase (SGK1, SGK2 and SGK3), p21-activated kinase-1 (PAK1), protein kinase PKN (PKN1 and PKN2). Plays a central role in the transduction of signals from insulin by providing the activating phosphorylation to PKB/AKT1, thus propagating the signal to downstream targets controlling cell proliferation and survival, as well as glucose and amino acid uptake and storage. Negatively regulates the TGF-beta-induced signaling by: modulating the association of SMAD3 and SMAD7 with TGF-beta receptor, phosphorylating SMAD2, SMAD3, SMAD4 and SMAD7, preventing the nuclear translocation of SMAD3 and SMAD4 and the translocation of SMAD7 from the nucleus to the cytoplasm in response to TGF-beta. Activates PPARG transcriptional activity and promotes adipocyte differentiation. Activates the NF-kappa-B pathway via phosphorylation of IKKB. The tyrosine phosphorylated form is crucial for the regulation of focal adhesions by angiotensin II. Controls proliferation, survival, and growth of developing pancreatic cells. Participates in the regulation of Ca(2+) entry and Ca(2+)-activated K(+) channels of mast cells. Essential for the motility of vascular endothelial cells (ECs) and is involved in the regulation of their chemotaxis. Plays a critical role in cardiac homeostasis by serving as a dual effector for cell survival and beta-adrenergic response. Plays an important role during thymocyte development by regulating the expression of key nutrient receptors on the surface of pre-T cells and mediating Notch-induced cell growth and proliferative responses. Provides negative feedback inhibition to toll-like receptor-mediated NF-kappa-B activation in macrophages.[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) has an alternate splice site in the 3' region, compared to variant 1. The resulting isoform (B) is shorter and has a distinct C-terminus, compared to isoform A.