

Product datasheet for **MC203148**

Pdk2 (NM_133667) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pdk2 (NM_133667) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Pdk2
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >BC021764
 GGCCGGTGCCAGCGCCTCCAGCCCCGGGACAGCAGCGAGATCCAAGCCCCGAGCCGAGGCCGCGTCGCCA
 TGCGCTGGGTCCGGGCGCTGTTGAAGAATGCGTCCCTGGCAGGGGCACCCAAGTACATCGAGCACTTCAG
 CAAGTTCTCCCGTCCCCGTTGTCCATGAAGCAGTTTCTAGACTTCGGATCCAGCAATGCCTGCGAGAAG
 ACGTCATTCACTTTCCTCCGGCAGGAGCTGCCCGTTCCCTGGCCAACATCATGAAAGAGATCAACCTGC
 TTCCTGACCGAGTGTGGCACCACATCGGTGCAGCTGGTGCAGAGCTGGTATGTCCAGAGTCTGCTGGA
 CATCATGGAATTCTGGACAAAGACCCCGAGGACCACCGGACTCTAAGCCAGTTCACAGATGCCCTGGTC
 ACCATCCGGAACCGGCACAATGACGTGGTGCCACCATGGCACAGGGAGTCTGGAGTACAAGGACACCT
 ATGGAGATGACCCCGTCTCCAACCAGAACATCCAGTACTTCTGGACCGTTCTACCTCAGCCGCATCTC
 CATCCGAATGCTAATCAATCAACACACCCTCATCTTTGATGGCAGCACCAACCCAGCCCACCCCAACAC
 ATTGGCAGCATCGATCCCAACTGCAGCGTGTCTGATGTGGTAAAAGACGCCTATGACATGGCTAAGCTCC
 TGTGTGACAAGTATTACATGGCTTCCCCTGACCTGGAGATCCAGGAAGTCAATGCCACCAACGCCAACCA
 GCCATTACATGGTCTATGTCCCTTCCCACCTGTACCACATGCTCTTTGAACTTTAAGAATGCCATG
 CGGGCCACTGTGAAAAGCCAGAGTCCAGCCTCACACTCCCCCATCAAGATTATGGTGGCCCTCGGTG
 AAGAAGATCTGTCCATCAAATGAGTGACCGAGGCGGGGTGTCCCTTGAGGAAGATCGAGAGGCTCTT
 CAGCTACATGACTCCACAGCTCCACACCCCAGCCTGGCACTGGGGGTACCCCGCTGGCTGGCTTTGGG
 TACGGACTCCCCATTTCCCGCCTCTACGCCAAGTACTTCCAGGGGACTTGCAGCTTTTCTCTATGGAGG
 GCTTTGGGACAGATGCTGTCTATCTGAAGGCCCTGTCCACGGACTCAGTGGAGCGCCTGCCTGTCTA
 CAACAAGTCTGCCTGGCGCCACTACCAGACCATCCAGGAGGCCGGCGACTGGTGTGTGCCAGCACAGAG
 CCCAAGAACACATCGACGTATCGGGTCACTAGGGGCCTTCCCTCCCTGGCACCTGTAGGATGCTGCCAC
 CTCTGAATCCAGCCACCACAGGGACCTTCCCTATCTATCCCTAGGTTACAAGGGGTGAAACTGGGTCTC
 CCTGATGGCCAGATCTGTCTTTGTAGAAATCTCAGTGGCCCAACTGTGGTGGTCCCTAAGTGCCAATATG
 TCTCTGGGAGAAACCCTAGGGGTTTCCCTGGAACCCGGTTTCCATAGTATGCTTGGGGTGGGGAT
 GGCTCTCCCTGATGGGGTGGCCAGAGACTTCTCCCAAGATCAGAAGTGTCTGTTTTCTACTAGAAGC
 CCTGGTCCCCCTCACTGCCTGCATAGTCTGGCCTTCCAAGTGGCTGCTCCGCTTGCTTATGCCACA
 CACTGTACAGGCACATTTGGGCTGGGTTCTTTGTCAATGTTAAGAAGGATGGAGTGCCCTCAAGTCTGGA
 GAGGGACTGGGGGAAGATAGGGTCCACCCTTGACTCTGATCCTGCAGCCTCTATCTACTCTGGATGGT
 ATGAAGTTGCAATTGGGAACTTGAGAGTAGGTAGCGATTCTACCCGGGGCCACCAGAGAGGGCAGGCCCT
 AGGAGTAAGTGCSCCAAGGTGATCTTAGCAATGTTTCTGTTTAGCTGCTTCTAAAGCCTTGCCACC
 CAGCATGTCTCACGTGCACACCTCCCCTGCCAGTCTACACCCACCTATGCTGCCTGAGCTTCAGACC
 CCACCCACCCCTATGCCACTATGTGTGCACAAGTACTCACCCCTAGGACAGCCCTATGTACATAGCC
 AGTTTTGTAATCTCAGAAGCCCTGCCCTTCCCCTCCACACACAGGGGTTAAAGCCGTGTGCCCTCCAGT
 GGCTGGGATGGTACAGTGACATCCACAGTAAACAGATGAAATGTAAAAAAAAAAAAAAAAA

Restriction Sites: RsrII-NotI

ACCN: NM_133667

Insert Size: 1224 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: [BC021764](#), [AAH21764](#)

RefSeq Size: 2231 bp

RefSeq ORF: 1224 bp

Locus ID: 18604

UniProt ID: [Q9JK42](#)

Cytogenetics: 11 59.01 cM

Gene Summary: Kinase that plays a key role in the regulation of glucose and fatty acid metabolism and homeostasis via phosphorylation of the pyruvate dehydrogenase subunits PDHA1 and PDHA2. This inhibits pyruvate dehydrogenase activity, and thereby regulates metabolite flux through the tricarboxylic acid cycle, down-regulates aerobic respiration and inhibits the formation of acetyl-coenzyme A from pyruvate. Inhibition of pyruvate dehydrogenase decreases glucose utilization and increases fat metabolism. Mediates cellular responses to insulin. Plays an important role in maintaining normal blood glucose levels and in metabolic adaptation to nutrient availability. Via its regulation of pyruvate dehydrogenase activity, plays an important role in maintaining normal blood pH and in preventing the accumulation of ketone bodies under starvation. Plays a role in the regulation of cell proliferation and in resistance to apoptosis under oxidative stress. Plays a role in p53/TP53-mediated apoptosis. [UniProtKB/Swiss-Prot Function]