

Product datasheet for **RC200975**

PDXK (NM_003681) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDXK (NM_003681) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PDXK
Synonyms:	C21orf97; C21orf124; HEL-S-1a; HMSN6C; PKH; PNK; PRED79
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC200975 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGGAGGAGTGCCGGGTGCTCTCCATACAGAGCCACGTCATCCGCGGCTACGTGGGCAACCGGGCGG
CCACGTTCCCGCTGCAGGTTTTGGGATTTGAGATTGACGCGGTGAACCTGTCCAGTTTTCAAACACAC
AGGCTATGCCACTGGAAGGGCCAAGTGTGAATTCAGATGAGCTCCAGGAGTTGTACGAAGGCCTGAGG
CTGAACAACATGAATAAATGACTACGTGCTCACAGTTATACGAGGGACAAGTCGTTCTGGCCATGG
TGTTGGACATTGTGCAGGAGCTGAAGCAGCAGAACCCAGGCTGGTGTACGTGTGTGATCCAGTCTTGGG
TGACAAGTGGGACGGCGAAGGCTCGATGTACGTCCCGGAGGACCTCCTTCCCGTCTACAAAGAAAAGTG
GTGCCGCTTGACACATTATCACGCCAACCAAGTTTGGAGCCGAGTTACTGAGTGGCCGGAAGATCCACA
GCCAGGAGGAAGCCTTGCGGGTGTGGACATGCTGCACTCTATGGGCCCGACACCGTGGTCCATCCAG
CTCCGACCTGCCCTCCCCGAGGGCAGCAACTACCTGATTGTGCTGGGGAGTCAGAGGAGGAGGAATCCC
GCTGGCTCCGTGGTGTGGAACGCATCCGGATGGACATTCGAAAAGTGGACGCCGCTTTGTGGGCACTG
GGGACCTGTTTGTGCTGCCATGCTCCTGGCGTGGACACACAAGCACCCCAATAACCTCAAGTGGCCTGTGA
GAAGACCGTGTCTACCTTGACACAGTTCTGCAGAGGACCATCCAGTGTGCAAAAGCCCAGGCCGGGAA
GGAGTGAGGCCAGCCCCATGCAGCTGGAGCTGCGGATGGTGCAGAGCAAAGGGACATCGAGGACCCAG
AGATCGTCGTCCAGGCCACGGTGCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC200975 protein sequence
Red=Cloning site Green=Tags(s)

MEEECRVLSIQSHVIRGYVGNRAATFPLQVLGFEIDAVNSVQFSNHTGYAHWKGQVLNSDELQELYEGLR
 LNNMNKYDYVL TGYTRDKSFLAMVVDIVQELKQQNPRLVYVCDPVLGDKWDGEGSMYVPEDLLPVYKEKV
 VPLADIIITPNQFEAELLSGRKIHSQEEALRVMDMLHSMGPDTVVITSSDLPSPQGSNYLIVLGSQRRRNP
 AGSVVMERIRMDIRKVDVAVFVGTGDLFAAMLLAWTHKHPNNLKVACEKTVSTLHHVLQRTIQCAKAQAGE
 GVRPSPMQLELRMVQSKRDIEDPEIVVQATVL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6398_g09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_003681

ORF Size: 936 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_003681.5](#)

RefSeq Size: 7390 bp

RefSeq ORF: 939 bp

Locus ID: 8566

UniProt ID: [O00764](#)

Cytogenetics: 21q22.3

Domains: pfkB

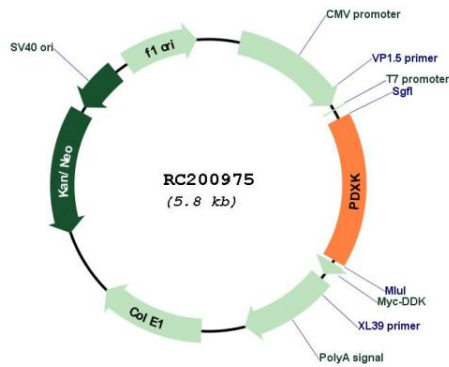
Protein Families: Druggable Genome

Protein Pathways: Metabolic pathways, Vitamin B6 metabolism

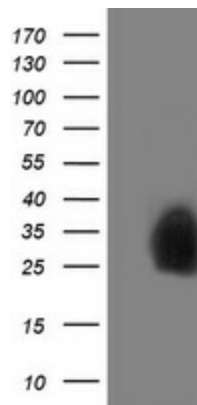
MW: 35.1 kDa

Gene Summary: The protein encoded by this gene phosphorylates vitamin B6, a step required for the conversion of vitamin B6 to pyridoxal-5-phosphate, an important cofactor in intermediary metabolism. The encoded protein is cytoplasmic and probably acts as a homodimer. Alternatively spliced transcript variants have been described, but their biological validity has not been determined. [provided by RefSeq, Jul 2008]

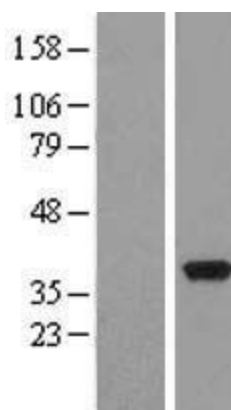
Product images:



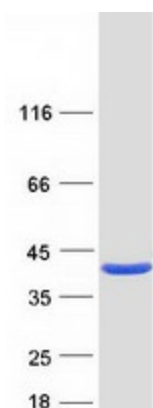
Circular map for RC200975



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PDXK (Cat# RC200975, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PDXK (Cat# [TA502998]). Positive lysates [LY418499] (100ug) and [LC418499] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY418499]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200975 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PDXK protein (Cat# [TP300975]). The protein was produced from HEK293T cells transfected with PDXK cDNA clone (Cat# RC200975) using MegaTran 2.0 (Cat# [TT210002]).