

Product datasheet for **MR211277**

Pkn1 (NM_177262) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pkn1 (NM_177262) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Pkn1
Synonyms:	DBK; F730027O18Rik; PAK1; Pkn; PRK1; Prkcl1; Stk3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>MR211277 representing NM_177262
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCCGGCGACGCCGTACAGAGTGAGCCTCGAAGCTGGTCGCTGCTGGAACAGCTGGTCTGGCTGGGG
 CTGACCTGGCAGCCCCGGGTGCAGCAACAGCTGGAGTTAGAGCGAGAGCGACTGAAGCGGAGATACG
 GAAGGAGCTGAAGCTGAAGGAGGGCGCTGAGAACCTGAGGCGAGCCACCACTGACCTGGGCCGTAGCCTG
 GCCCTGTGGAGCTGCTGCTGCGGGGCTCCGCTCGACGCCTAGACTTACTGCACCAGCAGCTGCAGGAGC
 TGCATGCACATGTGGTGTGCTGACCCTGCAGCTGGAAGCGATGCTACCCAATCCCTTGACAGGGGAGC
 CCCTATCTGCTCATCCACCAACCTGAGCAGAGTGGCTGGGCTGGAGAAGCAGCTGGCCATTGAGCTCAAG
 GTCAAACAGGGGGCAGAGAACATGATCCAGACCTATAGCAATGGCAGCAGCAAGGACCGGAAGCTGTTGT
 TGACAGCCAGCAGATGCTGCAGGACAGTAAGACCAAGATTGACATCATCCGCATGCAGCTTCGAAGAGC
 GCTCCAGGCACTACAGGCTGGAGAGCTGGAGAGTCAGGCAGCTCCTGATGAAGCCCAAGGAGATCCAGAA
 CTGGGAGCCGTAGAGCTACGCATTGAGGAGCTACGACACCAATTTTCGAGTGGAGCATGCAGTGGCAGAA
 GTGCCAAGAATGTCTGCGCCTGCTCAGTGGGGCAAAGGCCCCAGACCGCAAGGCAGTCAGCGAGGCTCA
 GGAGAAATTGACTGAGTCCAACCAAGAGCTGGGCTTGGTGTGCGGAATCACTGGAGAGGCGCCTTGGGGAG
 TTGCTGCGCATCACCCCAAGGGGCGGCTGCTTCCGGAGGAGCTCACTGCAGCCTCGTCCTCAGCCTTCA
 GCGCCATACTGCCTGGGCCCTTCCCTGCCACTCACTACAGCACCTTGAGCAAGCCTGCACCGCTCACAGG
 GACCTGGAAGTACGAGTGGTGGGCTGCAAAAACCTTCCCGAGACCATCCCCTGGAGCCCTCCCCCTCA
 GTGGGGGCATCTGGGACCCCGAAAGCCGCACTCCGTTCTGAGTCGCCCCGCTCGGGCCCTTACAGCC
 GGAGTGAAGCCTTAGTGGACGGAGCAGCCTCAGAGGGGAGGCAGAGAATGCCACTGAGTCAAGCAGCCT
 GCTCAAGCTGGACAACACAGTGGTGGGGCAAACAGCCTGGAAGCCATGCGGCCCAATGCCTGGGACCCAG
 AGCTTTACCCTGGAGCTGGAGAGGGCTCGGGAGCTGGAGCTGGCTGTGTTCTGGCGAGACCAGAGGGGTC
 TGTGTGCTCTCAAATTTCTGAAGTTGGAGGACTTCTTGGACAACGAGAGGCATGAGGTGCAGCTGGACAT
 GGAACCCAGGGCTGCCTGGTGGCTGAGGTCACTTCCGAAACCCATCATCGAGCGGATCCCTAGGCTC
 CAAAGGCAGAAAAAATCTTCTCAAGCAGCAAGGGAAGGCATTTAGCGAGCCAGACAGATGAACATAG
 ATGTGGGACTTGGGTGCGGCTGCTCCGTAGACTCATCCCTAGTGTGTGGCCACTGGCACCTTCAGTCC
 CAATGCATCTCCAGGTGCTGAGATCCGGCACACTGGAGACATATCCATGGAGAAATGAATCTCGGTGCT
 GACTCAGACAGCTCGTCCAAAAGAGCCACCAGGGCTGCCCTCCACCTCATGCAGCCTGAGTTCTCCAA
 CCCATGAATCCACCACATCTCCAGAGCTGCCTTACAGAGCCAGGAGACTCCAGGCCCTGGCCTGTGCAG
 CCCCTTGAGAAAGTCGCCCTGACACTTGAAGTTCCTGGCCGTGCTTGGCCGGGGTCACTTT
 GGAAAGGTGCTGTGCTGAATTCGCTCCAGTGGGGAGCTTTTGCATCAAAGCCTTGAAGAAAGGTG
 ACATTGTAGCCCGAGATGAGGTTGAGAGCCTGATGTGTGAGAAGCGGATTTTGGCGGCCGTGACCAGGGC
 AGGACATCCCTTCTGTTGAACCTTTTCGGCTGTTTCCAGACCCAGAGCACGTGTGCTTTGTGATGGAG
 TACTCGGCGGGTGGAGACCTGATGCTGCACATTCATAGCGACGTGTTCTCAGAGCCTCGGGCTGTCTTCT
 ATTCGGCTGTGTGGTGGTGGACTGCAGTTCCTCCATGAACACAAGATTGTCTACAGGGACCTGAAGTT
 GGACAATTTGCTCCTGGATACTGAGGGCTACGTCAGATCGCAGACTTTGGCCTTGCAGAGGGGGATG
 GGCTATGGGGACCGGACCAGCACGTTCTGCGGAACTCCGGAGTTCTGGCGCCGGAAGTGTCCACAGACA
 CATCTACACGCGAGCAGTGGACTGGTGGGGACTGGGCGTGTGCTCTATGAGATGTTGGTTGGAGAGTC
 TCCGTTCCCTGGGGATGATGAGGAGGAGGTATTTGACAGCATTGTCAACGACGAAGTTCCGCTATCCCCGC
 TTCCTGTCTGCAGAGGCCATCGGCATCATGAGAAGGCTACTGCGGAGGAACCCGGAGCGGAGGCTGGGGT
 CCACTGAGCGGATGCAGAAGATGTGAAAAACAGCCTTTCTTCCGGTCTCTGGGCTGGGATGTCCTGCT
 GGCCCCCGCTTGCCTCCACCTTCGTGCCTACACTTTCAGGGCGCACAGATGTCAGCAACTTCGATGAG
 GAGTTCACTGGGGAGGCCCCCACTGAGTCTCCCGGGATGCACGGCCCTCACAGCTCGGGAGCAGG
 CAGCCTTCGGGATTTGACTTTGTGGCCGGAGGCTAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR211277 representing NM_177262
Red=Cloning site Green=Tags(s)

```
MAGDAVQSEPRSWSLLEQLGLAGADLAAPGVQQQLELERERLKRKELKKEGAENLRRATDDLGRSL
APVELLLRGSARRDLLHQQLQELHAHVLPDPAAGSDATQSLAEGSPICSSNLSRVAGLEKQLAIELK
VKQGAENMIQTYNSGSSKDRKLLLLTAQQMLQDSKTKIDIIRMQLRRALQALQAGELESQAAPDEAQQDPE
LGAVELRIEELRHHFRVEHAVAEGAKNVLRLLSGAKAPDRKAVSEAQEKLTESNQKLGLLRESLERRLGE
LPADHPKGRLLREELTAASSAFSAILPGPFPPATHYSTLSKPAPLTGTLEVRVVGCKNLPETIPWSPPPS
VGASGTPESRTPFLSRPARGLYSRSGSLSGRSSLRGEAENATEVSTVLKLDNTVVGQTAWKPCGPNAWDQ
SFTLELERARELELAVFWRDQRGLCALFKLEDFLDNERHEVQLDMEPQGCLVAEVTFRNPIIERIPRL
QRQKKIFSKQQGKAFQARQMNIDVATWVRLRRLIPSAVATGTFSPNASPGAIEIRHTGDISMEKLNLGA
DSDSSSQSPPGLPSTSCSLSSPSTHSTTSPPELSETQETPGPGLCSPLRKSPLTLEDFKFLAVLGRGHF
GKVLLSEFRSSGELFAIKALKKGDIVARDEVESLMCEKRILAAVTRAGHPFLVNLFGCFQTEHVCFVME
YSAGGDLMLHIHSDVFSEPRAVFYACVVLGLQFLHEHKIVYRDLKLDNLLLDTEGYVKIADFLCKEKM
GYGDRSTFCGTPEFLAPEVLTDTSYTRAVDWVGLGVLLYEMLVGESPFPGDDEEEVFDSIYNDEVRYPR
FLSAEAIIGIMRLLRRNPERRLGSTERDAEDVKKQPFPRSLGWDVLLARRLPPPVPTLSGRTDVSNFDE
EFTGEAPTLSPPRDARPLTAAEQAAFDFDFVAGGY
```

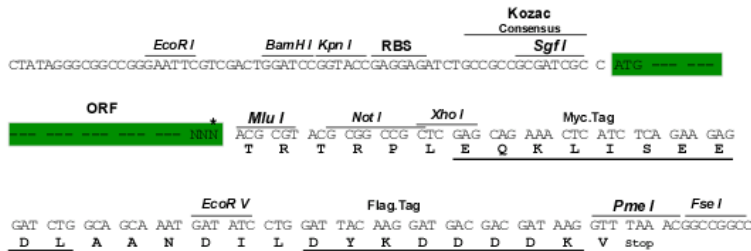
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9009_d03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



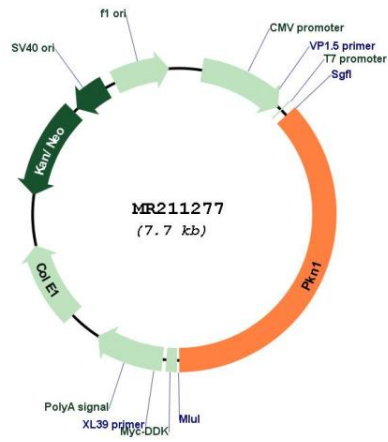
* The last codon before the Stop codon of the ORF

ACCN: NM_177262

ORF Size: 2838 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:	<ol style="list-style-type: none"> 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_177262.4 , NP_796236.2
RefSeq Size:	3436 bp
RefSeq ORF:	2841 bp
Locus ID:	320795
UniProt ID:	P70268
Cytogenetics:	8 40.22 cM
MW:	104.9 kDa
Gene Summary:	<p>PKC-related serine/threonine-protein kinase involved in various processes such as regulation of the intermediate filaments of the actin cytoskeleton, cell migration, tumor cell invasion and transcription regulation. Part of a signaling cascade that begins with the activation of the adrenergic receptor ADRA1B and leads to the activation of MAPK14. Regulates the cytoskeletal network by phosphorylating proteins such as VIM and neurofilament proteins NEFH, NEFL and NEFM, leading to inhibit their polymerization. Phosphorylates 'Ser-575', 'Ser-637' and 'Ser-669' of MAPT/Tau, lowering its ability to bind to microtubules, resulting in disruption of tubulin assembly. Acts as a key coactivator of androgen receptor (ANDR)-dependent transcription, by being recruited to ANDR target genes and specifically mediating phosphorylation of 'Thr-11' of histone H3 (H3T11ph), a specific tag for epigenetic transcriptional activation that promotes demethylation of histone H3 'Lys-9' (H3K9me) by KDM4C/JMJ2C. Phosphorylates HDAC5, HDAC7 and HDAC9, leading to impair their import in the nucleus. Phosphorylates 'Thr-38' of PPP1R14A, 'Ser-159', 'Ser-163' and 'Ser-170' of MARCKS, and GFAP. Able to phosphorylate RPS6 in vitro.[UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for MR211277