

## Product datasheet for **MR211351**

### **Pkn2 (BC052073) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Pkn2 (BC052073) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Pkn2
Synonyms:	6030436C20Rik; AI507382; PRK2; Prkcl2; Stk7
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>MR211351 representing BC052073  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGCATCGCC

ATGGCGTCCAACCCGACCGGGGGAGATCCTCCTCACCGAGCTGCAGGGAGATCCCGACTCTCCAT  
 TTTCTGAGAATGTGAGTCTGTTTCAGAAATGGACGACATCAAGGATCGAATAAAGAGAGAAATAAGGAA  
 AGAACTGAAAATCAAAGAAGGAGCTGAAAACCTGAGGAAAGTTACAACAGATAAGAAAAATTTGGCTTAT  
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 CTCTCGTAGTTCTACTAGCAACAATAGACTGATGGCCTTACAGAAAACACTGGATATAGAACTTAAAGTA  
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 ATCCAAGTTCTTATCTACAGAAGCCATTTCCATAATGAGAAGGCTGCTAAGGAGAAATCCTGAGCGCG  
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 GGAGCAGGAGATGTTCCACGATTTTACTACGTTGCTGATTGGTGT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR211351 representing BC052073  
 Red=Cloning site Green=Tags(s)

MASNPDRGEILL TELQGDSRTL PFSENVSAVQKLD DIKRIKREIRKELKIKEGAENLRKVTTDKKNLAY  
 VDNILKKSNNKLEELHHKLQELNAHIVVSDPEDSTDCPRTPTDTPNSDSRSSTSNRMLALQKQLDIELKV  
 KQGAENMIQMYSNGSSKDRKLHGTAQQLLQDSKTKIEVIRMQILQAVQTNELAFDNAKPVISPLELRMEE  
 LRHHFKIEFAVAEGAKNVMKLLGSGKVTDRKALSEAQARFNESSQKLDLLKYSLEQRNLPRNHPKSSV  
 VIEELSLVASPTLSPRQSM LSTQNQYSTLSKPAALTGTLEVRMLGQCQDILENVPGRSKATSVALPGWSPS  
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 TFLRAPQMNIINIATWGR LVRRAIPTVNHSGTFSPQTPVPATVPVVDARIPDLAPPASDSTVTKLDFDLEP  
 EPPPAPPRASSLGETDESSELRVLDIPGGGSETVFNIENDRNLRPKSKSEYEL SIPDSGRSCWGVGELD  
 DKRAQQRFQFSLQDFRCCAVLGRGHFGKVL LAEYKHTNEMFAIKALKKGDI VARDEVDSL MCEKRIFETV  
 NSVRHPFLVNL FACFQTKHVCFVMEYAAGDLMHMIHTDVFSEPRAVFYAACVVLGLQYLHEHKIVYRD  
 LKLDNLLLDTEGFVKIADFLGCKEGMGYDRTSTFCGTP EFLAPEVLTETSYTRAVDWWGLVLIYEMLV  
 GESPPFGDDEEEVFDSIVNDEVYRPRFLSTE AISIMRLLRRNPERRLGAGEKDAEDVKKHPFFRLTDWS  
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

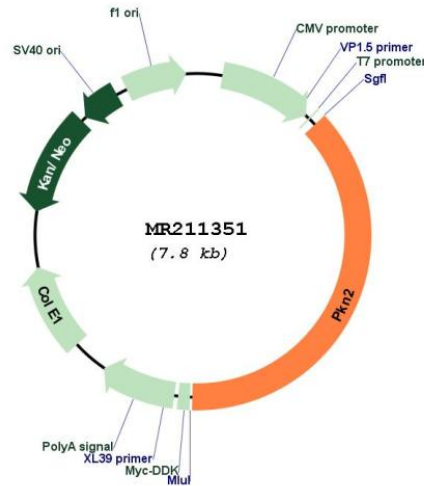
**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



Plasmid Map:



ACCN: BC052073

ORF Size: 2916 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.

RefSeq: [BC052073.1](#)

RefSeq Size: 3773 bp

RefSeq ORF: 2918 bp

Locus ID: 109333

Cytogenetics: 3 66.69 cM

**MW:** 138.3 kDa

**Gene Summary:** PKC-related serine/threonine-protein kinase and Rho/Rac effector protein that participates in specific signal transduction responses in the cell. Plays a role in the regulation of cell cycle progression, actin cytoskeleton assembly, cell migration, cell adhesion, tumor cell invasion and transcription activation signaling processes. Phosphorylates CTTN in hyaluronan-induced astrocytes and hence decreases CTTN ability to associate with filamentous actin. Phosphorylates HDAC5, therefore lead to impair HDAC5 import. Direct RhoA target required for the regulation of the maturation of primordial junctions into apical junction formation in bronchial epithelial cells. Required for G2/M phases of the cell cycle progression and abscission during cytokinesis in a ECT2-dependent manner. Stimulates FYN kinase activity that is required for establishment of skin cell-cell adhesion during keratinocytes differentiation. Regulates epithelial bladder cells speed and direction of movement during cell migration and tumor cell invasion. Inhibits Akt pro-survival-induced kinase activity. Mediates Rho protein-induced transcriptional activation via the c-fos serum response factor (SRF). Involved in the negative regulation of ciliogenesis (By similarity).[UniProtKB/Swiss-Prot Function]