

Product datasheet for MC222959

Pkn2 (NM_178654) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pkn2 (NM_178654) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Pkn2
Synonyms:	6030436C20Rik; AI507382; PRK2; Prkcl2; Stk7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC222959 representing NM_178654 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGTCCAACCCCGACCGGGGGGAGATCCTCCTCACCGAGCTGCAGGGAGATCCCGGACTCTTCCAT
TTTCTGAGAATGTGAGTGCTGTTTCAGAAATTAGACTTTTCAGATAACAATGGTGAACAGAAATTGGACGA
CATCAAGGATCGAATAAGAGAGAAAATAAGGAAAGAACTGAAAATCAAAGAAGGAGCTGAAAACCTGAGG
AAAGTTACAACAGATAAGAAAAATTTGGCTTATGTAGACAACATTTTGAAAAATCAAATAAAAAATTAG
AAGAATTACATACAAGCTACAAGAATTAATGCACACATCGTTGTATCGGATCCAGAGGACTCCACAGA
TTGTCCGAGGACTCCAGATACTCCAATAGTACTCTCGTAGTTCTACTAGCAACAATAGACTGATGGCC
TTACAGAAAACACTGGATATAGAACTTAAAGTAAAGCAGGGTGCAGAGAACATGATACAGATGTACTCAA
ATGGCTCTTCAAAGGATCGGAACTCCATGGTACAGCGCAGCAACTGCTACAGGATAGCAAGACAAAAAT
AGAAGTCATCCGGATGCAGATTCTTCAGGCCGTCCAGACCAATGAGCTGGCTTTTGATAATGCAAAACCT
GTGATAAGCCCTTTGAGCTTCGGATGGAAGAATTAAGACATCATTTTAAGATAGAATTTGCAGTAGCCG
AAGGTGCAAGAATGTCATGAAGTTACTTGGCTCAGGAAAAGTAAACAGACAGAAAAGCGCTTTTCAGAAGC
ACAAGCGAGATTTAATGAATCAAGTCAGAAGTTGGACCTTTTAAAGTATCACTAGAGCAAAGGTTAAAT
GAGCTCCCAGGAATCACCCAAAAGCAGTGTGTCATTGAGGAGCTTTCACTGGTTGCGTCACCAACCC
TGAGTCCACGGCAGAGCATGCTGTCCACGAGAACCAGTATAGCACACTGTCCAAGCCAGCGGCGCTAAC
CGGTACTTTGGAAGTTCGTCTTATGGGGTGCCAAGATATCCTAGAGAATGTACCTGGACGGTCAAAAAGCA
ACGTCGGTAGCACTACCTGGGTGGAGTCCAAGTGACAACAGATCGTCTTTTATGAGCAGAACCAGCAAGA
GTAAAAGTGGGAGTAGTCGCAACCTCCTGAAAACGGATGACTTGTCCAATGATGTTTGTGCTGTTTTGAA
GCTAGATAATACTGTGGTTGGTCAAACAGCTGGAAACCCATTTCAAATCAGTCGTGGGACCAGAAGTTT
ACACTGGAACAGACAGGTCACGTGAACTGGAAATTTTCAGTTTATTGGCGTGATTGGCGATCTCTGTGTG
CTGTAATAATTTCTGAGGTTAGAAGATTTTTAGACAACCAGCGCATGGCATGTGTCTCTATTTGGAACC
ACAGGGTACTTTGTTTGCAGAGGTTACTTTTTTAAATCCAGTTATTGAAAGACGACCAAACTCCAAGA



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CAAAAGAAAATTTTTTCAAACAACAAGGCAAAACATTTCTCAGAGCTCCTCAGATGAATATTAATATTG
 CCCTTGGGGAAGACTAGTGAGACGAGCTATCCACAGTAAATCATTCTGGCACATTCAGCCCTCAGAC
 TCCTGTGCCTGCAACAGTGCCAGTCGTTGACGCACGCATTCTGATCTAGCACCTCCGGCCAGTGACTCT
 ACAGTAACCAAATGGACTTTGATCTTGAACCTGAACCTCCTCCAGCCCCACCTCGTGCTTCTCCCTTG
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 TATTGAGAATGACAGAAAACCTGCGTCCAAAATCCAAATCTGAATATGAGCTGAGCATTCTGACTCA
 GGTCGAAGCTGCTGGGGTGTGGAGAGCTTGATGACAAGAGAGCTCAGCAGAGGTTTCAGTTCAGTCTAC
 AGGACTTCAGGTGCTGTCTGTCTTGGGAGAGGACACTTTGAAAGGTGCTGTTGGCGGAATAAACA
 CACAAATGAAATGTTTGAATAAAAGCCTTAAAGAAAGGAGACATTGTGGCACGAGATGAAGTAGACAGC
 CTGATGTGTGAAAAAGAATTTTTGAGACTGTGAATAGTGTGAGGCACCCGTTTCTAGTGAACCTTTTTG
 CATGTTTCCAAACAAAAGAACATGTTTGCCTCGTGATGGAGTAGCTGCAGGTGGTGACCTGATGATGCA
 CATCCATACTGATGTCTTCTGAACCCAGAGCTGATTTTATGCAGCATGTGTAGTTCTTGGGTTGCAA
 TACTTACATGAACACAAAATTGTTTATAGAGATTTGAAGTTGGATAACTTGTGTAGATACAGAAGGCT
 TTGTGAAAATTGCTGACTTTGGTCTTTGCAAAGAAGGAATGGGGTATGGAGATAGGACAAGCACATTTTG
 TGGTACTCCTGAGTTTCTGCCCAAGAAGTCCTAACAGAAACATCGTACACAAGGCTGTAGATTGGTGG
 GGCTTGGTGTACTTATATATGAGATGCTCGCGGAGTCTCCCTTCTGGTGATGATGAAGAAGAGG
 TTTTTGACAGTATTGTAATGACGAAGTAAGGTATCCAAGTTCTTATCTACAGAAGCCATTTCCATAAT
 GAGAAGGCTGCTAAGGAGAAATCCTGAGCGGCCCTGGGAGCTGGTGAGAAGGATGCAGAGGATGTCAAG
 AAGCACCCGTTTTTCCGGCTAACCGACTGGAGTCTCTAATGGACAAAAAAGTAAAGCCACCATTGTAC
 CTACCATTAGAGGACGGGAAGATGTTAGTAACTTTGATGATGAATTTACCTCAGAAGCACCTATTCTGAC
 TCCACCTCGAGAACCAAGGATACTCTTGAAGAGGAGCAGGAGATGTTCCACGATTTTGACTACGTTGCT
 GATTGGTGTAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_178654
- Insert Size:** 2952 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_178654.4](#), [NP_848769.2](#)
- RefSeq Size:** 6207 bp
- RefSeq ORF:** 2952 bp

Locus ID: 109333

UniProt ID: [Q8BWW9](#)

Cytogenetics: 3 66.69 cM

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]