

Product datasheet for SC109209

PYK2 (PTK2B) (NM_004103) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PYK2 (PTK2B) (NM_004103) Human Untagged Clone
Tag:	Tag Free
Symbol:	PYK2
Synonyms:	CADTK; CAKB; FADK2; FAK2; PKB; PTK; PYK2; RAFTK
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM_004103 edited
 ATGTCTGGGGTGTCCGAGCCCCTGAGTCGAGTAAAGTTGGGCACGTTACGCCGGCCTGAA
 GGCCCTGCAGAGCCCATGGTGGTGGTACCAGTAGATGTGGAAAAGGAGGACGTGCGTATC
 CTCAAAGGTCTGCTTCTATAGCAACAGCTTCAATCCTGGGAAAACTTCAAAGTGGTCAAA
 TGCACTGTCCAGACGGAGATCCGGGAGATCATCACCTCCATCCTGCTGAGCGGGCGGATC
 GGGCCCAACATCCGGTTGGCTGAGTGTATGGGCTGAGGCTGAAGCACATGAAGTCCGAT
 GAGATCCACTGGCTGCACCCACAGATGACAGTGGGTGAGGTGCAGGACAAGTATGAGTGT
 CTGCACGTGGAAGCCGAGTGGAGGTATGACCTTCAAATCCGCTACTTGCCAGAAGACTTC
 ATGGAGAGCCTGAAGGAGGACAGGACCACGCTGCTCTATTTTTACCAACAGCTCCGGAAC
 GACTACATGCAGCGCTACGCCAGCAAGGTACGCGAGGGCATGGCCCTGCAGCTGGGCTGC
 CTGGAGCTCAGGCGGTTCTTCAAGGATATGCCCAACAATGCACCTTGACAAGAAGTCCAAC
 TTGAGCTCCTAGAAAAGGAAGTGGGGCTGGACTTGTTTTTCCCAAAGCAGATGCAGGAG
 AACTTAAAGCCAAACAGTTCGGGAAGATGATCCAGCAGACCTTCCAGCAGTACGCCCTCG
 CTCAGGGAGGAGGAGTGCATGAAGTTCTTCAACACTCTCGCCGGCTTCGCCAACATC
 GACCAGGAGACCTACCGCTGTGAACCTATTCAAGGATGGAACATTACTGTGGACCTGGTC
 ATTGGCCCTAAAGGATCCGCCAGCTGACTAGTCAGGACGCAAAGCCACCTGCCTGGCC
 GAGTTCAGCAGATCAGGTCCATCAGGTGCCTCCCGCTGGAGGAGGGCCAGGCAGTACTT
 CAGCTGGGCATTGAAGGTGCCCCCAGGCTTGCCATCAAACCTCATCCCTAGCAGAG
 GCTGAGAACATGGCTGACCTCATAGACGGCTACTGCCGGCTGCAGGGTGAGCACCAGGC
 TCTCTCATCATCCATCCTAGAAAAGATGGTGAGAAGCGGAACAGCCTGCCCCAGATCCCC
 ATGCTAAACCTGGAGGCCCGGGCTCCACCTCTCAGAGAGCTGCAGCATAGAGTCAGAC
 ATCTACGCAGAGATTCGCCAGCAAACCTGCGAAGGCCCGGAGGTCCACAGTATGGCATT
 GCCCGTGAAGATGTGGTCTGAATCGTATTCTTGGGGAAGGCTTTTTTGGGGAGGTCTAT
 GAAGGTGTCTACACAAATCACAAGGGGAGAAAACCAATGTAGCTGTCAAGACCTGCAAG
 AAAGACTGCACTCTGGACAACAAGGAGAAGTTCATGAGCGAGGCAGTGATCATGAAGAAC
 CTCGACCACCCGCACATCGTGAAGCTGATCGGCATCATTGAAGAGGAGCCACCTGGATC
 ATCATGGAATTGTATCCCTATGGGGAGCTGGGCCACTACCTGGAGCGGAACAAGAACTCC



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CTGAAGGTGCTCACCCCTCGTGCTGACTCACTGCAGATATGCAAAGCCATGGCCTACCTG
 GAGAGCATCAACTGCGTGACAGGGACATTGCTGTCCGGAACATCCTGGTGGCCTCCCCT
 GAGTGTGTGAAGCTGGGGACTTTGGTCTTTCCCGGTACATTGAGGACGAGGACTATTAC
 AAAGCCTCTGTGACTCGTCTCCCATCAAATGGATGTCCCAGAGTCCATTAACCTCCGA
 CGCTTCACGACAGCCAGTGACGTCTGGATGTTCCCGGTGTCATGTGGGAGATCCTGAGC
 TTTGGGAAGCAGCCCTTCTTCTGGCTGGAGAACAAGGATGTCATCGGGGTGCTGGAGAAA
 GGAGACCGGTGCCCAAGCCTGATCTGTCCACCGGCTTTTATACCCTCATGACCCGC
 TGCTGGGACTACGACCCAGTGACCGGCCCGCTTACCAGAGCTGGTGTGCAGCCTCAGT
 GACGTTTTATCAGATGGAGAAGGACATTGCCATGGAGCAAGAGAGGAATGCTCGCTACCGA
 ACCCCCAAATCTTGAGGCCACAGCCTTCCAGGAACCCCAACCCAGCCAGCCGACCT
 AAGTACAGACCCCTCCGCAAACCAACCTCCTGGCTCAAAGCTGCAGTTCAGGTTCT
 GAGGGTCTGTGTGCCAGCTCTCTACGCTCACCAGCCCTATGGAGTATCCATCTCCCGTT
 AACTCACTGCACACCCACCTCTCCACCGGCACAATGTCTTCAAACGCCACAGCATGCGG
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 AAGGTCAAATGCGGCAAATCCTGGACAACAGCAGAAGCAGATGGTGGAGGACTACCAG
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 TTGACGCCAGAGAAGGAGGTCCGCTACCTGGAGTTCACAGGGCCCCACAGAAGCCCCCG
 AGGCTGGGCGCACAGTCCATCCAGCCCACAGCTAACCTGGACCGGACCGATGACCTGGT
 TACCTCAATGTATGGAGCTGGTGCAGGCGGCTGGAGCTCAAGAAATGAGCTCTGTCAG
 CTGCCCCCGAGGGCTACGTGGTGGTGGTGAAGAATGTGGGGCTGACCCTGCGGAAGCTC
 ATCGGGAGCGTGGATGATCTCCTGCCTTCTTCCCGTCACTTTCACGGACAGAGATCGAG
 GGCACCCAGAACTGCTCAACAAAGACCTGGCAGAGCTCATCAACAAGATGCGGCTGGCG
 CAGCAGAACGCCGTGACCTCCCTGAGTGAGGAGTCAAGAGGCAGATGCTGACGGCTTCA
 CACACCTGGCTGTGGACGCCAAGAACCTGCTCGACGCTGTGGACCAGGCCAAGGTTCTG
 GCCAATCTGGCCACCCACCTGCAGAGTGA

**5' Read Nucleotide
 Sequence:**

>OriGene 5' read for NM_004103 unedited
 GGTACATTTGTATACGACTCATATAGGCGCCGCGNAATTCGCACGAGGGAGCAGCAGG
 GGTGTGGTTAAACACTCAGAGGAGGAGGAGAATCTAACCTGTCAGCCCTTTTACTCAGC
 CACAGCCTCCGGAGCCGTTGCACACCTACCTGCCCGGCCGACTTACCTGTACTTGGCCGC
 GTCCCGGCTCACCTGGCGGTGCCCGAGGAGTAGTCGCTGGAGTCCGCGCCTCCCTGGGAC
 TGCAATGTGCCGATCTTAGCTGCTGCCTGAGAGGATGTCTGGGGTGTCCGAGCCCTGAG
 TCGAGTAAAGTTGGGCACGTTACGCCGGCCTGAAGGCCCTGCAGAGCCATGGTGGTGGT
 ACCAGTAGATGTGAAAAGGAGGACGTGCGTATCCTCAAGGTCTGCTTCTATAGCAACAG
 CTTCAATCCTGGGAAAACTTCAAAGTGGTCAAATGCACTGTCCAGACGGAGATCCGGGA
 GATCATCACCTCCATCCTGCTGAGCGGGCGGATCGGGCCCAACATCCGGTTGGCTGAGTG
 CTATGGGCTGAGGCTGAAGCACATGAAGTCCGATGAGATCCACTGGCTGCACCCACAGAT
 GACAGTGGGTGAGGTGCAGGACAAGTATGAGTGTCTGCACGTGGAAGCCGAGTGGAGGTA
 TGACCTTCAAATCCGCTACTTGCCAGAAGACTTCAATGGAGAGCCTGAAGGAGGACAGGAC
 CACGCTGCTCTATTTTTACCAACAGCTCCGGAACGACTACATGCAGCGCTACGCCAGCAA
 GGTGAGGAGGGCATGGCCCTGCAGCTGGGCTGCCTGGAGCTCANGCGGTTCTTCAGGAT
 ATGCCCAACAATGCACTTGCACNAGAAGTCCAACCTCGAGCTNCTAGAAAGGAAGTGGNG
 CTGGNACTGNTNTNNCCAGCAGAGC

3' Read Nucleotide Sequence:	>OriGene 3' read for NM_004103 unedited ATTTGGGTTTNTAAACCACTTTCAGTCAAAAGNAAGGAGCCTAAAGNATGTTTATGCAAA CTCTTGANAAAANAAGGTGCAGATGAGAATGGGGGTTGGGCGAGAGAAAAGAGGAGGATG TAAGAAAAGCAGGGAAAAGCAAGGAAAGTAAAGGAAGAAAGAGAAAAGAGGGCAGGAAGA GAGCGGATTTGGCCCAAGGTCTATCTTGGTTTTTTTTTCTGCTTCTTCCCCTGATGC TTGGTTTGTGACAACACAGCATCCTGTGCCTGGACTCCCAATTAGCTTGTTCCTGGACT GTGCCCCAGGTCTCCCTCAGGAGGGCACATGCTGTCAGTCCAGACCAAACCTCACATTAA ATAAATTTCAATATACACTGTACAAGAATGCCAGGCCCATCCCTCATCTCACTGGCTGCC TGACCCCAAAAACAAAGCTCCTCCCCAGCTTCTGTGCATCAAGGGACATCTGAGGGCC GAAGAGGAAGGGAAAGGAATAGCTTGGTTCCCAAATCGGCCTGCCATGTCCATATATTA AGCTTGGGGCCACCATGTGACACCTCCCCACCCAGGAGCCCCCTGCATGGACCCAGGC TGGCTTAAGGAGCAGGGCCAGGCCGCCACAGTCCCCCTCTGAGCATTTTTGTACCTG CACCCTGGGTCCATTATCCAGAGTCCCCTTTGGCCAGCTCCGGCTGAGCCATTCATCCC AGGGTATGTGTTGGGATAGGGCGTTTTGCCAAGTGTCTGGGGAAGGGTGAATCCCTT TGGCTTTTCCCCTTGGTAGTTCCCATGTACCCACTCCCTGCTCGGGGTGGTTCTGGGC CGGCCTGGGTCTGAATACATAGTTGGGGGCCCCATCCTTCTGTAATTATAAGGTTAATG GGCCCATATTGCCATAAATTTGTCTTGGTCC
Restriction Sites:	NotI-NotI
ACCN:	NM_004103
Insert Size:	4400 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:	<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_004103.3 , NP_004094.3
RefSeq Size:	4555 bp
RefSeq ORF:	3030 bp
Locus ID:	2185
UniProt ID:	Q14289
Cytogenetics:	8p21.2
Domains:	B41, pkinase, TyrKc, S_TKc, Focal_AT
Protein Families:	Druggable Genome, Protein Kinase

Protein Pathways:	Calcium signaling pathway, Chemokine signaling pathway, GnRH signaling pathway, Leukocyte transendothelial migration, Natural killer cell mediated cytotoxicity
Gene Summary:	<p>This gene encodes a cytoplasmic protein tyrosine kinase which is involved in calcium-induced regulation of ion channels and activation of the map kinase signaling pathway. The encoded protein may represent an important signaling intermediate between neuropeptide-activated receptors or neurotransmitters that increase calcium flux and the downstream signals that regulate neuronal activity. The encoded protein undergoes rapid tyrosine phosphorylation and activation in response to increases in the intracellular calcium concentration, nicotinic acetylcholine receptor activation, membrane depolarization, or protein kinase C activation. This protein has been shown to bind CRK-associated substrate, nephrocystin, GTPase regulator associated with FAK, and the SH2 domain of GRB2. The encoded protein is a member of the FAK subfamily of protein tyrosine kinases but lacks significant sequence similarity to kinases from other subfamilies. Four transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. Variants 1, 2, and 3 all encode isoform a. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.</p>