

Product datasheet for SC109211

PYK2 (PTK2B) (NM_173176) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PYK2 (PTK2B) (NM_173176) 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 within SC109211 sequence for NM_173176 edited (data generated by NextGen Sequencing)

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ATGTCTGGGGTGTCCGAGCCCTGAGTCGAGTAAAGTTGGGCACRRTTACGCCGGCCTGAA
GGCCCTGCAGAGCCCATGGTGGTGGTACCAGTAGATGTGGAAAAGGAGGACGTGCGTATC
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CAGCAGAAACGCCGTGACCTCCCTAAGTGAGGAGTGCAAGAGGCAGATGCTGACGGTTCA
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GCCAATCTGGCCACCCACCTGCAGAGTGA
    
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Clone variation with respect to NM_173176.2
 45 g=>r;2513 a=>m

5' Read Nucleotide Sequence:

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>OriGene 5' read for NM_173176 unedited
TTGTATACGACTCACTATAGGCGGCCGGAATTCGCACGAGGCCTCGTGCCGAATTCGGC
ACGAGGCTTTTACTCAGCCACAGCCTCCGGAGCCGTTGCACACCTACCTGCCCGCCGAC
TTACCTGTACTTGCCGCCGTCCCGGCTCACCTGGCGGTGCCCGAGGAGTAGTCGTGGAG
TCCGCGCCTCCCTGGGACTGCAATGTGCCGATCTTAGCTGCTGCCTGAGAGGATGTCTGG
GGTGTCCGAGCCCTGAGTCGAGTAAAGTTGGGCACGTTACGCCGGCCTGAAGGCCCTGC
AGAGCCCATGGTGGTGGTACCAGTAGATGTGAAAAGGAGGACGTGCGTATCCTCAAGGT
CTGCTTATAGCAACAGCTTCAATCCTGGGAAAAGTCAAAGTGGTCAAATGCACTGT
CCAGACGGAGAATCCGGGAGATCATCACCTCCATCCTGCTGAGCGGGCNGGATCGGGCC
AACATCCGGTTGGCTGAGTGCTATGGGCTGAGGCTGAAGCACATGAAGTCCGATGAGATC
CACTGGCTGCACCCACAGATGACGGTGGGTGGAGGGTGCNAGGACAAGTATGAGTGTCTG
CACGTGGAAGCCGAGTGGGAAGTATGACCTTCAAATCCGCTACTTGCCAGAAGACTTCAT
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ACTACATGCAGCGCTACGCCAGCAAGGTCANCGAGGGCATGGCCCTGCAGCTGGGGCTGC
CTGGACTTAAAGCCGNTCTTCAAAGAAATGCCCCACATGCACTTGAACAGAAGTTCA
ACTTCGAGCTCTAGAAAGGGGAGAGGGGGCTTGGCATCTGGGTTTTTCAAAGCAGATG
CAGGGAGACCTTAAGCCCA
    
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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_173176 unedited AGAATCGAGAAAAAAAAAAAAAAAAACGCAAACGGGAAATAACCTACCTCAACCACATGC CCTACTAGATTGGATCCATTAGACGCGTCTTTGCCAAACACACGATAAAATGAAAGGGTG CAAACAGATAAACTGGGTCCTGGGGAATATATTAATGAGGAGTTAAAATATGAGGGAAA AGCAAGGGAAAGTAAAGGAAATAGAGAAAGAGGGGCAGGAAGAGAGCGGATTTGGCCAA GGTCTATCTTGGCCGCATCTCTCTGCTTCTTCCCCTGATGCTTTGGTTTGTGACAAC ACAGATCCTGTGCCTGGACTCCCAATTTAGCTTGTTCCTGGACTGTGCCCCAGGTCCTC CCTCAAGAGGGCACATGCTGTCAGTCCAGACCAAACACTACATTAATAAATTTCAATATA CACTGTACAAGAATGCCAGGCCATCCCTCATCTCACTGGCTGCCTGACCCCAAAAACAA AGCTCCTCCCCAGCTTCTCTGTGCATCAAGGGACATCTGAGGGCCGAAGAGGAAGGGAAA GGAATAGCTTGGTTCCCAAATCGGCCTGCCATGTCCATATATAAAGCTAGGGGCACCATG TGACACCTCCCCACCCAGGAGCCCCCTGCATGGACCAGGCTGGCTTAAGGAGCAGTGG CCAGGCAGCAGTCCCCCTCTGAGCCATCTTGTACCCTCACCTGTGTCCATAGCC CAGAATCCCCTCTGTCCAGCTGCAGCCTGAGCAGT
Restriction Sites:	ECoRI-NOT
ACCN:	NM_173176
Insert Size:	4500 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_173176.1 , NP_775268.1
RefSeq Size:	4089 bp
RefSeq ORF:	3030 bp
Locus ID:	2185
UniProt ID:	Q14289
Cytogenetics:	8p21.2
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:

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]

Transcript Variant: This variant (3) 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.