

Product datasheet for SC324205

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:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_004103.3
TCGATCTAACCTGTCAGCCCTTTTACTCAGCCACAGCCTCCGGAGCCGTTGCACACCTAC
CTGCCCCGGCCGACTTACCTGTAATGCGCCGTCGCCGGCTCACCTGGCGGTGCCGAGGA
GTAGTCGCTGGAGTCCGCGCCTCCCTGGGACTGCAATGTGCCGATCTTAGCTGCTGCCTG
AGAGGATGTCTGGGGTGTCCGAGCCCTGAGTCGAGTAAAGTTGGGCACGTTACGCCGGC
CTGAAGGCCCTGCAGAGCCCATGGTGGTGTACCAGTAGATGTGGAAAAGGAGGACGTGC
GTATCCTCAAGGTCTGCTTCTATAGCAACAGCTTCAATCCTGGGAAAACTTCAAAGTGG
TCAAATGCACTGTCCAGACGGAGATCCGGGAGATCATCACCTCCATCCTGCTGAGCGGGC
GGATCGGGCCCAACATCCGGTTGGCTGAGTGCTATGGGCTGAGGCTGAAGCACATGAAGT
CCGATGAGATCCACTGGCTGCACCCACAGATGACAGTGGGTGAGGTGCAGGACAAGTATG
AGTGTCTGCACGTGGAAGCCGAGTGGAGGTATGACCTTCAAATCCGCTACTTGCCAGAAG
ACTTCATGGAGAGCCTGAAGGAGGACAGGACCACGCTGCTCTATTTTACCAACAGCTCC
GGAACGACTACATGCAGCGCTACGCCAGCAAGGTGAGCGAGGGCATGGCCCTGCAGCTGG
GCTGCCTGGAGCTCAGGCGGTTCTTCAAGGATATGCCCCACAATGCACCTGACAAGAAAGT
CCAAGTTCGAGCTCCTAGAAAAGAAAGTGGGGCTGGACTGTGTTTTCCCAAAGCAGATGC
AGGAGAACTTAAAGCCAAACAGTTCGGGAAGATGATCCAGCAGACCTCCAGCAGTACG
CCTCGCTCAGGGAGGAGGAGTGCATGAAGTCTTCAACACTCTCGCCGGCTTCGCCA
ACATCGACCAGGAGACCTACCGCTGTGAAGTCAAGGATGGAACATTACTGTGGACC
TGGTCAATTGGCCCTAAAGGGATCCGCCAGCTGACTAGTCAGGACGCAAAGCCACCTGCC
TGCCCGAGTTCAAGCAGATCAGGTCCATCAGGTGCCTCCCGCTGGAGGAGGGCCAGGCAG
TACTTCAGCTGGCATTGAAGGTGCCCCAGGCTTGTCCATCAAAACCTCATCCCTAG
CAGAGGCTGAGAACATGGCTGACCTCATAGACGGCTACTGCCGGCTGCAGGGTGAAGCACC
AAGGCTCTCTCATCATCCATCCTAGGAAAGATGGTGAGAAGCGGAACAGCCTGCCCCAGA
TCCCCATGCTAAACCTGGAGGCCCGGGTCCCACCTCTCAGAGAGCTGCAGCATAGAGT
CAGACATCTACGCAGAGATTCCCGACGAAACCCTGCGAAGGCCCGGAGGTCCACAGTATG
GCATTGCCCGTGAAGATGTGGTCTGAATCGTATTCTTGGGAAGGCTTTTTTGGGGAGG
TCTATGAAGGTGCTACACAAATCATAAAGGGGAGAAAATCAATGTAGCTGTCAAGACCT



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GCAAGAAAGACTGCACTCTGGACAACAAGGAGAAGTTCATGAGCGAGGCAGTGATCATGA
 AGAACCTCGACCACCCGCACATCGTGAAGCTGATCGGCATCATTGAAGAGGAGCCACCT
 GGATCATCATGGAATTGTATCCCTATGGGGAGCTGGGCCACTACCTGGAGCGGAACAAGA
 ACTCCCTGAAGGTGCTCACCCCTCGTGTACTCACTGCAGATATGCAAAGCCATGGCCT
 ACCTGGAGAGCATCAACTGCGTGACAGGGACATTGCTGTCCGGAACATCCTGGTGGCCT
 CCCCTGAGTGTGAAGCTGGGGACTTTGGTCTTTCCCGGTACATTGAGGACGAGGACT
 ATTCAAAGCCTCTGTGACTCGTCTCCCATCAAATGGATGTCCCAGAGTCCATTAACCT
 TCCGACGCTTCAGGACAGCCAGTGACGTCTGGATGTTCCCGGTGTGCATGTGGGAGATCC
 TGAGCTTTGGGAAGCAGCCCTTCTTCTGGCTGGAGAACAAGGATGTCATCGGGGTGCTGG
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 CCCGCTGTGGGACTACGACCCAGTGACCGGCCCGCTTACCAGAGCTGGTGTGCAGCC
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 CCGTAACTCACTGCACACCCACCTCTCCACCGCACAAATGTCTTCAAACGCCACAGCA
 TGCGGGGAGGAGGACTTCAATCCAACCCAGCAGCCGAGAAGAGGCCAGCAGCTGTGGGAGG
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 CCCCATGACGCCAGAGAAGGAGGTGCGCTACCTGGAGTTCACAGGGCCCCACAGAAGC
 CCCCAGGCTGGGCGCACAGTCCATCCAGCCACAGCTAACCTGGACCGGACCGATGACC
 TGGTGTACCTCAATGTCATGGAGCTGGTGGGGCCGTGCTGGAGCTCAAGAATGAGCTCT
 GTGAGTGCCTCCCGAGGGCTACGTGGTGGTGGTGAAGAATGTGGGGCTGACCCTGCGGA
 AGCTCATCGGGAGCGTGGATGATCTCCTGCCTTCCCTGGCGTCACTTCCAGGACAGAGA
 TCGAGGGCACCCAGAACTGCTCAACAAAGACCTGGCAGAGCTCATCAACAAGATGCGGC
 TGGCGCAGCAGAACGCCGTGACCTCCCTGAGTGAGGAGTGCAAGAGGCAGATGCTGACGG
 CTTACACACCCTGGCTGTGGACGCCAAGAACCTGCTCGACGCTGTGGACCAGGCCAAGG
 TTCTGGCCAATCTGGCCACCCACCTGCAGAGTGACGGAGGGTGGGGGCCACCTGCCTGC
 GTCTTCCGCCCTGCCTGCCATGTACCTCCCCTGCCTTGTGTTGGTCAATGTGGGTCTTC
 CAGGGAGAAGGCCAAGGGGAGTACCTTCCCTTGCCTTTGCACGACGCCCTCTCCCA
 CCCCTACCCTGGCTGTACTGCTCAGGCTGCAGCTGGACAGAGGGGACTCTGGGCTATGG
 ACACAGGGTGACGGTGACAAAGATGGCTCAGAGGGGGACTGCTGCTGCCTGGCCACTGCT
 CCCTAAGCCAGCCTGGTCCATGCAGGGGGCTCCTGGGGTGGGGAGGTGTACATGGTGC
 CCCTAGCTTTATATATGGACATGGCAGGCCGATTTGGGAACCAAGCTATTCTTTCCCTT
 CCTCTTCGGCCCTCAGATGTCCCTTGTGCACAGAGAAGCTGGGGAGGAGCTTTGTTTTG
 GGGTCAAGCAGCCAGTGAAGATGAGGGATGGCCCTGGCATTCTTGTACAGTGTATATTGA
 AATTTATTTAATGTGAGTTTGGTCTGGACTGACAGCATGTCCCTCCTGAGGGAGGACCT
 GGGGCACAGTCCAGGAACAAGCTAATTGGGAGTCCAGGCACAGGATGCTGTGTTGTCAAC
 AAACCAAGCATCAGGGGGAAGAAGCAGAGAGATGCGCCAAGATAGGACCTTGGGCCAAA
 TCCGCTCTTCCCTGCCCTCTTTCTTTCTTCTTCCCTTACTTTCCCTTGCTTTTCCCTCT
 TTTCTTACTCCTCCTTTCTCTCCCAACCCCAATTCTCATCTGCACCCTTCTTTCTC
 ATGTGTTTGCATAAACATTCTTTAACTTCTTTCTATTTGACTTGTGGTTGAATAAAAAT
 TGTCCTTTGCTTTGAAAAAAAAAAAAAAAA

Restriction Sites:

ECoRI-NOT

ACCN:

NM_004103

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).

OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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>