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Product datasheet for SC126377

PAK4 (NM_001014833) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PAK4 (NM_001014833) Human Untagged Clone
Tag:	Tag Free
Symbol:	PAK4
Synonyms:	p21 protein (Cdc42/Rac)-activated kinase 4; p21(CDKN1A)-activated kinase 4; p21-activated kinase 4; protein kinase related to S. cerevisiae STE20, effector for Cdc42Hs
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>OriGene sequence for NM_001014833 edited
GGGGATTCAACATGGCGGCGGGAGTGTCCGCGGTGGTGGCGGTGCAAGAGAGCTGAAGGA
GGCGCGAGGGCGCGGAGTTCCAGGCCGAGCAGTTAGGCCGCGAGCGACTGCGGCGCCGAG
CCGATGAGTAACCCGAAGCCCCTAGAGGAGTGGTCACCTGCCTGAGGGCACTTCTGTCCC
ACCAGCATCAGACCAGGCCGCACCGAGTCCCCGGCACCATGTTTGGGAAGAGGAAGAAGC
GGGTGGAGATCTCCGCGCCGTCCAACTTCGAGCACCGCGTGCACACGGGCTTCGACCAGC
ACGAGCAGAAGTTCACGGGGCTGCCCCGCCAGTGGCAGAGCCTGATCGAGGAGTCGGCTC
GCCGGCCCAAGCCCCTCGTCGACCCCGCCTGCATCACCTCCATCCAGCCCGGGGCCCCCA
AGACCATCGTGCGGGGCAGCAAAGGTGCCAAAGATGGGGCCCTCACGCTGCTGCTGGACG
AGTTTGAGAACATGTCGGTGACACGCTCCAACTCCCTGCGGAGAGACAGCCCGCCGCCGC
CCGCCCGTGCCCGCCAGGAAAATGGGATGCCAGAAAAGCCCCCTGGCCCCCGCTCACCAC
AGCGGGAGCCACAGCGAGTATCCCATGAGCAGTTCCGGGCTGCCCTGCAGCTGGTGGTGG
ACCCAGGCGACCCCCGCTCCTACCTGGACAACTTCATCAAGATTGGCGAGGGCTCCACGG
GCATCGTGTGCATCGCCACCGTGCGCAGCTCGGGCAAGCTGGTGGCCGTCAAGAAGATGG
ACCTGCGCAAGCAGCAGAGGCGCGAGCTGCTCTTCAACGAGGTGGTAATCATGAGGGACT
ACCAGCACGAGAATGTGGTGGAGATGTACAACAGCTACCTGGTGGGGGACGAGCTCTGGG
TGGTCATGGAGTTCCTGGAAGGAGGCGCCCTCACCGACATCGTCACCCACACCAGGATGA
ACGAGGAGCAGATCGCGGCCGTGTGCCTTGCAGTGCTGCAGGCCCTGTCGGTGCTCCACG
CCCAGGGCGTCATCCACCGGGACATCAAGAGCGACTCGATCCTGCTGACCCATGATGGCA
GGGTGAAGCTGTCAGACTTTGGGTTCTGCGCCCAGGTGAGCAAGGAAGTGCCCCGAAGGA
AGTCGCTGGTCGGCACGCCCTACTGGATGGCCCCAGAGCTCATCTCCCGCCTTCCCTACG
GGCCAGAGGTAGACATCTGGTCGCTGGGGATAATGGTGATTGAGATGGTGGACGGAGAGC
CCCCCTACTTCAACGAGCCACCCCTCAAAGCCATGAAGATGATTCGGGACAACCTGCCAC
CCCGACTGAAGAACCTGCACAAGGTGTCGCCATCCCTGAAGGGCTTCCTGGACCGCCTGC
TGGTGCGAGACCCTGCCCAGCGGGCCACGGCAGCCGAGCTGCTGAAGCACCCATTCCTGG
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AGTAGGGGGCCAGGCCTCCCACTCCTCCCAGCCCGGGAGATGCTCCGCGTGGCACCACCC
TCCTTGCTGGGGGTAGATGAGACCCTACTACTGAACTCCAGTTTTGATCTCGTGACTTTT
AGAAAAACACAGGGACTCGTGGGAGCAAGCGAGGCTCCCAGGACCCCCACCCTCTGGGAC
AGGCCCTCCCCCATGTTCTTCTGTCTCCAGGAAGGGCAGCGGCCCTCCCATCACTGGAAG
TCTGCAGTGGGGGTCGCTGGGGGTGGAGAGAACACTAAGAGGTGAACATGTATGAGTGTG
TGCACGCGTGTGAGTGTGCATGTGTGTGTGTGTGCAAAGGTCCAGCCACCCCGTCCTCCA
GCCCGCAAGGGGTGTCTGGCGCCTTGCCTGACACCCAGCCCCCTCTCCCCCTGAGCCATT
GTGGGGGTCGATCATGAATGTCCGAAGAGTGGCCTTTTCCCGTAGCCCTGCGCCCCCTTT
CTGTGGCTGGATGGGGAGACAGGTCAGGGCCCCCCACCCTCTCCAGCCCCTGCAGCAAAT
GACTACTGCACCTGGACAGCCTCCTCTTTTCTAGAAGTCTATTTATATTGTCATTTTATA
ACACTCTAGCCCCTGCCCTTATTGGGGGACAGATGGTCCCTGTCCTGCGGGGTGGCCCTG
GCAGAACCACTGCCTGAAGAACCAGGTTCCTGCCCGGTCAGCGCAGCCCCAGCCCGCCCA
CCCCTGCCTCGAGTTAGTTTTACAATTAAAACATTGTCTTGTAAAAAAAAAAAAAAAAAA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_001014833 unedited
NNGGTAGACGTTTAGGATTTGTNATACGACTTACTATAGGCGGCCGCGTAATCAAATCTG
GTACCGGTCCGGAATTCCCGGGATATCGTCGACCCACGCGTCCGTTCAACATGGCGGCGG
GAGTGTCCGCGGTGGTGGCGGTGCAAGAGAGCTGAAGGAGGCGCGAGGGCGCGGAGTTCC
AGGCCGAGCAGTTAGGCCGCGAGCGACTGCGGCGCCGAGCCGGCCGCACCGAGTCCCCGG
CACCATGTTTGGGAAGAGGAAGAAGCGGGTGGAGATCTCCGCGCCGTCCAACTTCGAGCA
CCGCGTGCACACGGGCTTCGACCAGCACGAGCAGAAGTTCACGGGGCTGCCCCGCCAGTG
GCAGAGCCTGATCGAGGAGTCGGCTCGCCGGCCCAAGCCCCTCGTCGACCCCGCCTGCAT
CACCTCCATCCAGCCCGGGGCCCCCAAGACCATCGTGCGGGGCAGCAAAGGTGCCAAAGA
TGGGGCCCTCACGCTGCTGCTGGACGAGTTTGAGAACATGTCGGTGACACGCTCCAACTC
CCTGCGGAGAGACAGCCCGCCGCCGCCCGCCCGTGCCCGCCAGGAAAATGGGATGCCAGA
GGAGCCGGCCACCACGGCCAGAGGGGGCCCAGGGAATGCAGGCAGCCGAGGCCGGTTCGC
CGGTCACAGCGAGTCTTTTGGCGGCAATGGTGACAGGTTATGGNCGGGCCATATAAGAGG
CCCAAGTCTTCCAGTGAGGGCTCACGGGGTTCCCCAGTAGTCCTCGCGGGATAACGCGTC
CTCTTCGGGCCTGATTTCGGCACCCCCTTACTTGTTTGGTTTGGCCAGTGGGGCAAAACC
GGCGCTTGTGCGGTCCTTAAAACC

Restriction Sites: Please inquire

ACCN: NM_001014833

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_001014833.1, NP_001014833.1

RefSeq Size: 2346 bp

RefSeq ORF: 2346 bp

Locus ID: 10298

Cytogenetics: 19q13.2

Protein Families: Druggable Genome, Protein Kinase

Protein Pathways: Axon guidance, ErbB signaling pathway, Focal adhesion, Regulation of actin cytoskeleton, Renal cell carcinoma, T cell receptor signaling pathway

Gene Summary: PAK proteins, a family of serine/threonine p21-activating kinases, include PAK1, PAK2, PAK3 and PAK4. PAK proteins are critical effectors that link Rho GTPases to cytoskeleton reorganization and nuclear signaling. They serve as targets for the small GTP binding proteins Cdc42 and Rac and have been implicated in a wide range of biological activities. PAK4 interacts specifically with the GTP-bound form of Cdc42Hs and weakly activates the JNK family of MAP kinases. PAK4 is a mediator of filopodia formation and may play a role in the reorganization of the actin cytoskeleton. Multiple alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. [provided by RefSeq, Jul 2008] Transcript Variant: This variant (6) lacks an in-frame segment in the coding region, as compared to variant 1. The encoded isoform (3) thus lacks an internal segment, as compared to isoform 1.