

## Product datasheet for **SC126462**

### PAK4 (NM\_001014832) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PAK4 (NM_001014832) Human Untagged Clone
Tag:	Tag Free
Symbol:	PAK4
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF:

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>OriGene sequence for NM_001014832 edited
TTCAACATGGCGCGGGAGTGTCCGCGGTGGTGGCGGTGCAAGAGAGCTGAAGGAGGCGC
GAGGGCGCGGAGTTCCAGGCCGAGCAGTTAGGCCGCGAGCAGTGC GGCGCCGAGCCGGC
CGCACCAGTCCCGGCACCATGTTTGGGAAGAGGAAGAAGCGGGTGGAGATCTCCGCGC
CGTCCAACCTCGAGCACCAGCGTGCACACGGGCTTCGACCAGCAGCAGCAGAAGTTCACGG
GGCTGCCCCGCCAGTGGCAGAGCCTGATCGAGGAGTCGGCTCGCCGGCCCAAGCCCCTCG
TCGACCCCGCTGCATCACCTCCATCCAGCCCGGGGCCCAAGACCATCGTGGCGGGCA
GCAAAGGTGCCAAAGATGGGGCCCTCACGCTGCTGTTGACGAGTTTGAAGAACATGTCGG
TGACACGCTCCAACCTCCCTGCGGAGAGACAGCCCGCCGCGCCCGCCCGTGCCTCCAGG
AAAATGGGATGCCAGAGGAGCCGGCCACCACGGCCAGAGGGGGCCAGGGGAAGGCAGGCA
GCCGAGGCCGGTTCGCCGTCACAGCGAGGCGGGTGGCGCAGTGGTGACAGGGCAGCGG
CGGGGCCAGAGAAGAGGCCCAAGTCTTCCAGGGAGGGCTCAGGGGGTCCCAGGAGTCTT
CCCGGGACAAACGCCCTCTCCGGGCTGATGTGGCACCCCGCAGCCTGCTGGTCTGG
CCAGTGGGGCAAACGGCAGTGGCCGGCCCTTAACACCTACCCGAGGGCTGACACGG
ACCACCCATCCCGGGTGCAGGGGAGCCTCATGACGTGGCCCTAACGGGCCATCAG
CGGGGGGCTGGCCATCCCCAGTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT
GAGGTGCCCCAGCCCTGGAGTGTGGGACCCACGCCTCAGAGCCCGAGTGGCCCTC
CAGCTGCACCCCGCCGCCCTGCTGTTCTGGGCCCCCTGGCCCCGCTCACCACAGC
GGGAGCCACAGCGAGTATCCCATGAGCAGTTCCGGGCTGCCCTGCAGTGGTGGTGGACC
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TCGTGTGCATCGCACCGTGCAGCTCGGGCAAGCTGGTGGCCGTCAAGAAGATGGACC
TGCGCAAGCAGCAGAGGGCGGAGCTGCTTTCAACGAGGTGGTAATCATGAGGGACTACC
AGCAGAGAATGTGGTGGAGATGTACAACAGCTACCTGGTGGGGGACGAGCTCTGGGTGG
TCATGGAGTTCTGGAAGGAGGCCCTCACCGACATCGTCACCCACACCAGGATGAACG
AGGAGCAGATCGCGGCCGTGTGCCTTGCAGTGTGCAGGCCCTGTGGTGTCCACGCC
AGGGCGTCATCCACGGGACATCAAGAGCGACTCGATCCTGCTGACCCATGATGGCAGGG
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CAGAGGTAGACATCTGGTGTGGGATAATGGTATTGAGATGGTGGACGGAGAGCCCC
CCTACTTCAACGAGCCACCCCTCAAAGCCATGAAGATGATTGGGACAACCTGCCACCC
GACTGAAGAACCAGCACAAAGGTGTGCCATCCCTGAAGGGCTTCTGGACCGCTGCTGG
TGCAGACCCCTGCCAGCGGGCCACGGCAGCCGAGCTGCTGAAGCACCCATTCTGGCCA
AGGCAGGGCCGCCTGCCAGCATCGTGCCCTCATGCGCCAGAACCAGCACCAGATGAGGC
CAGCGCCCTTCCCTCAACCAAAGAGCCCCCGGGTACCCCCGCCCCACTGAGGCCAGT
AGGGGGCCAGGCCTCCCACTCTCCAGCCCGGGAGATGCTCCGCGTGGCACCACCTCC
TTGCTGGGGGTAGATGAGACCCTACTACTGAACTCCAGTTTTGATCTCGTGACTTTTAGA
AAAACACAGGGACTCGTGGGAGCAAGCGAGGCTCCAGGACCCCCACCCTCTGGGACAGG
CCCTCCCCATGTTCTTCTGTCTCCAGGAAGGGCAGCAGCCCTCCCATCACTGGAAGTCT
GCAGTGGGGTGTGGGGTGGAGAGAACTAAGAGGTGAACATGTATGAGTGTGTGC
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GGGGTGCATCATGAATGTCCGAAGAGTGGCCTTTTCCCGTAGCCCTGCGCCCCCTTCTG
TGGCTGGATGGGAGACAGGTACAGGGCCCCCACCCTCTCCAGCCCTGCAGCAATGAC
TACTGCACCTGGACAGCCTCTCTTTTCTAGAAGTCTATTTATATTGTCATTTTATAACA
CTCTAGCCCTGCCCTTATTGGGGACAGATGGTCCCTGTCTGCGGGGTGGCCCTGGCA
GAACCACTGCCTGAAGAACCAGGTTCTGCCCCGTGAGCGCAGCCCGAGCCCGCCACCC
CTGCCCTGAGTTAGTTTTACAATTAACAAATTGCTTTTAAAAAAAAAAAAAAAAAAAA
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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for NM_001014832 unedited NGGGCTAGATTTGTATACCATTTTATGGGCGGCCGCGNATTCACATCTGGTACCGGTCCG GAATTCCTCCGGGATATCGTCGACCCACGCGTCCGTTCAACATGGCGGGGAGTGTCCGCG GTGGTGGCGGTGCAAGAGAGCTGAAGGAGGCGCGAGGGCGCGGAGTTCAGGCCGAGCAG TTAGGCCGCGAGCGACTGCGGCGCCGAGCCGGCCGACCGAGTCCCCGGCACCATGTTTTG GGAAGAGGAAGAAGCGGGTGGAGATCTCCGCGCCGTCCAATTTCGAGCACCGCGTGCACA CGGGCTTCGACCAGCAGCAGCAGAAGTTCACGGGGTGCCTCCAGTGGCAGAGCCTGA TCGAGGAGTCGGCTCGCGGCCCAAGCCCTCGTCGACCCGCTGCATCACCTCCATCC AGCCCGGGGCCCAAGACCATCGTGCGGGCAGCAAAGGTGCCAAAGATGGGGCCCTCA CGCTGCTGCTGGACGAGTTTGAACAATGTCGGTGACACGCTCCAACCTCCGCGAAAAG ACAGCCCGCCGCCCGCCCGCCGTCGCCGCGAGGAAAATGGGATGCCAGAGGAGCCGGCCA CCACGGCCAGAGGGGGCCAGGGAAGGCAGGCAGCCGAGGCCGTTTCGCCGTCACAGCG AGGCGGGTGGCGCAGTGGTGACAGGCGACGGGCGGGGCCAGAAAAGAGGCCCAAGTCTT CCAGGGAGGGCTCAGGGGTCCCAGGAGTCTCCGGGACAACGCCCTCTCCGGGCT GATGTGCGCACCCCCAGCCTGTGGTCTGGCCATGGGGGAAACTGCCAGCTGGGCCGC CCTTTACACTACCCGAGGGCTGAACGGACAACCATCCCGGGTGCCAGGGGAACCTA
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_001014832
<b>OTI Disclaimer:</b>	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).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">NM_001014832.1</a></u> , <u><a href="#">NP_001014832.1</a></u>
<b>RefSeq Size:</b>	2765 bp
<b>RefSeq ORF:</b>	1776 bp
<b>Locus ID:</b>	10298
<b>UniProt ID:</b>	<u><a href="#">O96013</a></u>
<b>Cytogenetics:</b>	19q13.2
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>Protein Pathways:</b>	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 (3) lacks an exon in the 5' UTR, and encodes the same isoform (1), as compared to variant 1.