

Product datasheet for **SC107077**

PAK5 (NM_177990) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PAK5 (NM_177990) Human Untagged Clone
Tag:	Tag Free
Symbol:	PAK5
Synonyms:	PAK7
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Cell Selection:	None



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Fully Sequenced ORF:

>OriGene ORF sequence for NM_177990 edited
ATGTTTGGGAAGAAAAGAAAAGATTGAAATATCTGGCCGTCACACTTTGAACACAGG
GTTCACTAGGGTTTGTCCACAAGAGCAGAAGTTTACCGGCCTTCCCAGCAGTGGCAC
AGCCTGTTAGCAGATACGGCCAACAGGCCAAAGCCTATGGTGGACCTTCATGCATCACA
CCCATCCAGCTGGCTCCTATGAAGACAATCGTTAGAGGAAACAAACCTGCAAGGAAACC
TCCATCAACGGCCTGCTAGAGGATTTTGACAACATCTCGGTGACTCGCTCCAACCTCCTA
AGGAAAGAAAGCCACCCACCCAGATCAGGGAGCCTCCAGCCAGGTCCAGGCCACGCG
GAAGAAAATGGTTTCATCACCTTCTCCAGTATTCCAGCGAATCCGATACTACTGCTGAC
TACACGACCGAAAAGTACAGGGAGAAGAGTCTCTATGGAGATGATCTGGATCCGTATTAT
AGAGGCAGCCACGCAGCCAAGCAAAATGGGCACGTAATGAAAATGAAGCACGGGGAGGCC
TACTATTCTGAGGTGAAGCCTTTGAAATCCGATTTTGCCAGATTTTCTGCCGATTATCAC
TCACATTTGGACTCACTGAGCAAACCAAGTGAATACAGTGACCTCAAGTGGGAGTATCAG
AGAGCCTCGAGTAGTCCCCTCTGGATTATTCATTCCAATTCACACCTTCTAGAAGTCA
GGGACCAGCGGGTCTCCAAGGAGAGCCTGGCGTACAGTAAAAGTGAATGGGACCCAGC
CTGGATGACTATGACAGGAGGCCAAAGTCTTCGTACCTGAATCAGACAAGCCCTCAGCCC
ACCATGCGGCAGAGGTCCAGGTCAGGCTCGGGACTCCAGGAACCGATGATGCCATTTGGA
GCAAGTGCATTTAAAACCCATCCCAAGGACACTCCTACAACCTCTACACCTACCCTCGC
TTGTCCGAGCCACAATGTGCATTCAAAGGTGGATTACGATCGAGCACAGATGGTCCCTC
AGCCCTCCACTGTGAGGGTCTGACACCTACCCAGGGCCCTGCCAAACTACCTCAAAGT
CAAAGCAAATCGGGCTATTCTCAAGCAGTCACCAGTACCCGCTCGGGTACCACAAGCC
ACCTTGTAACATACCCCTCCCTGCAGAGCAGTTCGCAGTACATCTCCACGGCTTCTAC
CTGAGCTCCCTCAGCCTCTCATCCAGCACCTACCCGCCGCCAGCTGGGGCTCCTCCTCC
GACCAGCAGCCCTCCAGGGTGTCCCATGAACAGTTTCGGGCGGCCCTGCAGCTGGTGGTC
AGCCCAGGAGACCCAGGGAATACTTGGCCAACCTTTATCAAATCGGGGAAGGCTCAACC
GGCATCGTATGCATCGCCACCGAGAAACACACAGGAAACAAGTTGCAAGTGAAGAAAATG
GACCTCCGGAAGCAACAGAGACGAGAATTGCTTTTCAATGAGGTCGTGATCATGCGGGAT
TACCACCATGACAATGTGGTTGACATGTACAACAGCTACCTTGTGCGGATGAGCTCTGG
GTGGTCATGGAGTTTCTAGAAGGTGGTGCCTTGACAGACATTGTGACTCACACCAGAATG
AATGAAGAACAGATAGCTACTGTCTGCCTGTCAGTTCTGAGAGCTCTCCTACCTTCAT
AACCAAGGAGTGATTCACAGGGACATAAAAAGTACTCCATCCTCCTGACAAGCGATGGC
CGGATAAAGTTGTCTGATTTTGGTTTCTGTGCTCAAGTTTCCAAAGAGGTGCCGAAGAGG
AAATCATTGGTTGGCACTCCCTACTGGATGGCCCTGAGGTGATTCTAGGCTACCTTAT
GGGACAGAGGTGGACATCTGGTCCCTCGGGATCATGGTATAGAAATGATTGATGGCGAG
CCCCCTACTTCAATGAGCCTCCCTCCAGGCGATGCGGAGGATCCGGGACAGTTTACCT
CCAAGAGTGAAGGACCTACACAAGGTTTCTTCAAGTGTCTCCGGGATTCCTAGACTTGATG
TTGGTGAGGGAGCCCTCTCAGAGAGCAACAGCCCAGGAACTCCTCGGACATCCATTCTTA
AAACTAGCAGGTCCACCGTCTTGATCGTCCCCCTCATGAGACAATACAGGCATCACTGA

5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_177990 unedited AATCCCGCCCGTTGCCGCATTGGGCGGTAGGCGTGTACCGTGGGAGGTCTATATAAGCAG AGCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGCGAAT TCGGCACGAGGCCCTTGGCCCTACCCAGCCAGTAGTAGTTCCCCAGCGTGCGCCCGGG GAGACCGGGAACATGGCGCTGGGAGCGCTGTAGCATCTGAGAAGGGGTGAGGCACCGCC GCTTCGCTGACAGCCGGCCACCAGAAAACACTGTGGTAAAATGCTTCCACCTCTTGCTA AAATGAACACTGAGAAAAATGAAGAAGACTGACAAGCACCAGCGAAAAAGTTGCAAAATA CAAATAGCCACACTCCTCTGGAGTCTTTAATTCATCCACAGCCATCATATAAAGGTTTTG GCATCATGTTTGGGAAGAAAAAGAAAAGATTGAAATATCTGGCCCGTCCAACTTTGAAC ACAGGGTTCATACTGGGTTTGTCCACAAGAGCAGAAGTTTACCGGCCTTCCCCAGCAGT GGCACAGCCTGTTAGCAGATACCGTCAACATGCCAAAGCCTATGGTGGACCCTTCATGCA TCACACCCATCCAGCTGGCTCCTATGAAGACAATCGTTAGAGGAAACAAACCCTGCAAGG AAACCTCCATGAACGGCCTGCTAGAGGATTTTGACAACATCTTAGTGACTCGCTGCAACT CCATAGGTAAGAAAGCCACCCACCCACATCAGGGAGCCTCTGCCACGGTCCAGGCCA CGCCGGAACATATGGGCTTCATACCTTCTCCAGTATTCCAGCGATCCCATACTACTGGT GACTACACGACCGAATATGCCGGGAGAATCCTCTTTGAAATGAACTGCATCCGTTTAT AGACGCATCCCGCGACCCAGGCAATGTGCCCTGTAGT</p>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_177990 unedited ATTAGATTTCTTTCATATANAAAATCTACTGTTACCCTGCATGTGGCTAGGATATATCAT AACGGAGTTTGTACTGAGTCCTTCTGATTTGCTGGATGAAGGGCTGAAAAATATAATAAT GACTTATTAAGCCGTGCTCCAAGTGACCACCCGGCTGTCAGTGGAGAGATGCCTGTTT AAGACACAAGAAGATGCCCTGGTCTGTTGAACCTGCCGGTCATCACGCTGTCCCACCAA TTGGCTGGTCTAGAATGCACAGGCCTTTTGCATGTTCTGTGTTTCTTTTGTCTCCTGA ATTATTCTCATGTCCTCATCTAGCTTTGCCACCTACACGAATCCTCTGCTCAGTGATGCC TGATTGTCTCATGAGGGGGACGATGCAAGACGGTGGACCTGCTAGTTTTAAGAATGGAT GTCCGAGGAGTTCTGGGCTGTTGCTCTCTGAGAGGGCTCCCTACCAACATCAAGTCTA GGAATCCCGGAGCACTGAAGAAACCTTGTTAGTTCCTTCACTTTGGAGGTAAACTGT CCCGGATCCTCCGCATCGCCTGGAGGGGAGGCTCATTGAAGTAGGGGGCTCGCCATCAA TCATTTCTATCACCATGATCCCGAGGGACCAGATGCCACCTCTGTCCCATAAGGTAGCC TAGAAATCACCTCAGGGGCCATCCAGTANGGAGTGCCAACCAATGATTTCCCTCTTCGCA CCTCTTTGGGAACCTTGAGCACAGAAACCAATCAGACACTTTTTCCGGCCATCGTTGGT CAGGAGATGGAGTCACTTTTTATGTCCCTGTGGATCACTCCCTTGTATGAAGGTAGGGA GAGAGCTCTTAGAACTGACAGGCAGACAGGAGCTATCTGGTCTTCTTATTCTGGTGTGA GTCACATGTCTGCAGGCACCCACTTCTAAAACCTCTGAACCCAGACTCATGCCGAAAG TAGCTGTGTCATT</p>
Restriction Sites:	NotI-NotI
ACCN:	NM_177990
Insert Size:	4840 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_177990.1 , NP_817127.1
RefSeq Size:	4506 bp
RefSeq ORF:	2160 bp
Locus ID:	57144
UniProt ID:	Q9P286
Cytogenetics:	20p12.2
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:	<p>The protein encoded by this gene is a member of the PAK family of Ser/Thr protein kinases. PAK family members are known to be effectors of Rac/Cdc42 GTPases, which have been implicated in the regulation of cytoskeletal dynamics, proliferation, and cell survival signaling. This kinase contains a CDC42/Rac1 interactive binding (CRIB) motif, and has been shown to bind CDC42 in the presence of GTP. This kinase is predominantly expressed in brain. It is capable of promoting neurite outgrowth, and thus may play a role in neurite development. This kinase is associated with microtubule networks and induces microtubule stabilization. The subcellular localization of this kinase is tightly regulated during cell cycle progression. Alternatively spliced transcript variants encoding the same protein have been described. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (2) lacks an internal 5' UTR exon, as compared to variant 1. Both variants encode the same protein.</p>