

Product datasheet for **SC323578**

PAK6 (NM_020168) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PAK6 (NM_020168) Human Untagged Clone
Tag:	Tag Free
Symbol:	PAK6
Synonyms:	PAK5
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >NCBI ORF sequence for NM_020168, the custom clone sequence may differ by one or more nucleotides

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ATGTTCCGCAAGAAAAAGAAGAACGCCCTGAGATCTCAGCGCCACAGAAGTCCAGCACCGTGTCCACA
CCTCCTTCGACCCCAAAGAAGGCAAGTTTGTGGGCTCCCCCACAATGGCAGAACATCCTGGACACACT
GCGGCGCCCAAGCCCGTGGTGGACCTTCGCGAATCACACGGGTGCAGTCCAGCCATGAAGACAGTG
GTGCGGGGCAGCGGATGCTGTGGATGGCTACATCTCGGGGCTGCTCAACGACATCCAGAAGTTGTCAG
TCATCAGCTCCAACACCTGCGTGGCCGACGCCACCAGCCGGCGGGCAGTCCCTGGGGTGTCT
GGGGGATGAGCACTGGGCCACCGACCCAGACATGTACCTCCAGAGCCCCAGTCTGAGCGCACTGACCCC
CACGGCTCTACCTCAGCTGCAACGGGGCACACCAGCAGGCCACAAGCAGATGCCGTGGCCGAGCCAC
AGAGCCCACGGGTCTGCCAATGGGCTGGTGCAAAGGCACAGTCCCTGGGCCCGCGGAGTTTCAGGG
TGCTCGCAGCGTGTCTGCAGTGGTGCCTGCCTGCAGAGTCCCCACCAGGAGCCTCGCCCCCAGC
GGCACCAATAGGCATGGAATGAAGGCTGCCAAGCATGGCTCTGAGGAGGCCCGGCCACAGTCTGCCTGG
TGGGCTCAGCCACAGGCAGGCCAGGTGGGAAGGCAGCCCTAGCCCTAAGACCCGGGAGAGCAGCCTGAA
GCGCAGGCTATCCGAAGCATGTTCTGTCCACTGCTGCCACAGCCCTCCAAGCAGCAGCAAGCCAGGC
CCTCCACCACAGAGCAAGCCCAACTCCTTTCCGACCGCCGAGAAAGACAACCCCAAGCCTGGTGG
CCAAGGCCAGTCTTGCCTCGGACAGCCGGTGGGGACCTTACGCCCTCTGACCACTTCGGATACCGAG
CAGCCCCCAGAAGTCCCTCCGCACAGCCCGGCCACAGGCCAGCTTCCAGGCCGGTCTTCCCCAGCGGA
TCCCCCGCACCTGGCACGCCAGATCAGCACCAGCACTGTACCTGCCCCAGGACCCACGGTTGCCA
AGGGTGCCTGGTGGTGGGACACAGGTGTTGTGACACATGAGCAGTTCAAGGCTGCGCTCAGGATGGT
GGTGACAGGGTGACCCCGGCTGCTGCTGGACAGTACGTGAAGATTGGCAGGGCTCCACCGGCATC
GTCTGCTGGCCCGGAGAACCACTCGGGCCGCCAGGTGGCCGTCAGATGATGGACCTCAGGAAGCAGC
AGCGCAGGGAGCTGCTTCAACGAGGTGGTGATCATGCGGGACTACCAGCACTTCAACGTGGTGGAGAT
GTACAAGAGCTACCTGGTGGGCGAGGAGCTGTGGTGCTCATGGAGTTCCTGCAGGGAGGAGCCCTCACA
GACATCGTCTCCAAGTCAGGCTGAATGAGGAGCAGATTGCCACTGTGTGTGAGGCTGTGCTGCAGGCC
TGGCCTACCTGCATGCTCAGGGTGTATCCACCGGACATCAAGAGTGACTCCATCCTGTGACCCTCGA
TGGCAGGGTGAAGCTCTCGGACTTCGGATTCTGTGCTCAGATCAGCAAAGACGTCCCTAAGAGGAAGTCC
CTGGTGGAAACCCCTACTGGATGGTCTCTGAAGTATCTCCAGGTCTTGTATGCCACTGAGGTGGATA
TCTGGTCTCTGGCATCATGGTATTGAGATGGTAGATGGGAGCCACCTACTTCACTGACTCCCCAGT
GCAAGCCATGAAGAGGCTCCGGGACAGCCCCCACCAGCTGAAAACTCTACAAGGTCTCCCCAGTG
CTGCGAGACTTCTGGAGCGGATGCTGGTGCGGGACCCCAAGAGAGAGCCACAGCCAGGAGCTCTAG
ACCACCCCTTCTGCTGCAGACAGGGTACCTGAGTGCCTGGTGGCCCTGATCCAGCTCTACCGAAAGCA
GACCTCCACCTGCTGA
    
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5' Read Nucleotide Sequence:

>OriGene 5' read for mutant NM_020168 unedited

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CCCGCCGTTGAGCAATGGGCGGTAGGCGGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGA
ACCGTCAGAAATTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGCATCTGATTATTT
TGGGAGCTGGAACTTGGAGCTGCACCTGAGTCCCGCCCTTCTAGCTCTCCCCTCCCTACCTTGGGCTC
CAGGAAGATGGGACTTGTGTGAGTCTGCTGCCACCCCTAAAGATATGGAAGACGCTGTGGGGCCAGA
AGTGCCCGGGGGGCTGTGGCAGCAGGCAGAGTGAATAGCAGATATGGTGGTCAAGGCTGCCCGTGTGTGT
CCTCTGGAGGTGTTGGGACAGAAGGGCAGTCTTGGTCCGAGCTGACTGGGAGTCTCCCGGGCTGGCTCT
GACCTCATCCTCCACGGGGATTGTTTCGGTAAAGGAGTGGCTTCTGGGGTCCGGAGTGGCATTGTTGGA
GGAGCGAGGCTTGATTTGCTTTAGGCTGGGCTGGGAGGAGTGGCCGCTTCTGGGCTAAGAGACAGCC
ACCAGCCTGCATGGGAAAACGCAGGACCCCGCTGCCCAAAGAACAGCCACGGCCTGGAGAGACTGCCAC
ACAGGTCCAGGTCTCCTCTCTACCCCTAAGAGAAGCCATTCCGGTAAGATTCCAGAAAGCGAAGCCCGAAG
CCCTGTCCGAAAAGAAACGCTGATTAGCCAAAATCGAACGTGACACTCTGGATGAGAGAGTGTGACTCC
CATTGCAACTGGAAGTGGGACTGGACCTGGGATCCAGTACTCCTGACATGCGCGACAGGCGGGGGAA
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Kinase Domain Sequence:	>SC323578 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation GKCATGCKACCCGGCTGCTGCTGGAAGCTACGTGAAGATTGGCGAGGGCTCCACCGGCATCGTCTGCTTG GCCCGGAGAAGCACTCGGGCCGCCAGGTGGCCGTCATGATGATGGACCTCAGGAAGCAGCAGCGCAGGG AGCTGCTCTTCAACGAGGTGGTGATCATGCGGGACTACCAGCACTTCAACGTGGTGGAGATGTACAAGAG CTACCTGGTGGGCGAGGAGCTGTGGGTGCTCATGGAGTTCTGCA
Restriction Sites:	Please inquire
ACCN:	NM_020168
Insert Size:	4470 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).
OTI Annotation:	This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." Cell, 2008 May p536-548.
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_020168.3 , NP_064553.1
RefSeq Size:	3889 bp
RefSeq ORF:	2046 bp
Locus ID:	56924
UniProt ID:	Q9NQU5
Cytogenetics:	15q15.1
Domains:	PBD, pkinase, TyrKc, S_TKc
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:

This gene encodes a member of a family of p21-stimulated serine/threonine protein kinases, which contain an amino-terminal Cdc42/Rac interactive binding (CRIB) domain and a carboxyl-terminal kinase domain. These kinases function in a number of cellular processes, including cytoskeleton rearrangement, apoptosis, and the mitogen-activated protein (MAP) kinase signaling pathway. The protein encoded by this gene interacts with androgen receptor (AR) and translocates to the nucleus, where it is involved in transcriptional regulation. Changes in expression of this gene have been linked to prostate cancer. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2015]

Transcript Variant: This variant (1) encodes isoform 1. Variants 1 and 4 encode the same isoform (1).