

Product datasheet for **RC225980**

PAK3 (NM_001128168) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PAK3 (NM_001128168) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PAK3
Synonyms:	ARA; beta-PAK; bPAK; MRX30; MRX47; OPHN3; PAK-3; PAK3beta
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



[View online »](#)

ORF Nucleotide Sequence:

>RC225980 representing NM_001128168
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCTGACGGTCTGGATAATGAAGAGAAACCCCGGCTCTCCACTGAGGATGAATAGTAAACACCGGG
 ATTCTTCAGCACTCAACACAGCTCCAAACCACTTCCCATGGCCCTGAAGAGAAGAATAAGAAAGCCAG
 GCTTCGCTCTATCTCCAGGAGGAGGGGATAAAACCAATAAGAAGAAGGAGAAAGCGCCAGAGATC
 TCTCTTCTTCAGACTTTGAGCATAAGTTCATGTGGGTTTGTGACAGTCACCGGGGAATTCCTAACT
 CCCCTTCCAGACCTCTAGACCTGTGACGGTCGCTTCAAGTCAATCAGAGGGAAAAATGCCAGATCTCTA
 TGGCTCACAGATGTGCCAGGGAAGCTCCAGAGGGAATCCAGAGCAATGGGCACGATTACTCCAACT
 TCCAACATAACAAAATTGGAACAGAAGAAGAACCCACAAGCTGTTCTAGATGTTCTCAAATCTATGATT
 CCAAAGAAACAGTCAACAACCAGAAATACATGAGCTTTACATCAGGAGATAAAAGTGCACATGGATACAT
 AGCAGCCCATCCTTCGAGTACAAAAACAGCATCTGAGCCTCCATTGGCCCTCCTGTGTGAAGAAGAA
 GATGAAGAGGAAGAAGAAGAAGATGAAAATGAGCCACCAGTTATCGCACCAAGACCAGAGCATA
 CAAAATCAATCTATACTCGTTCTGTGGTTGAATCCATTGCTTACCAGCAGTACCAAATAAAGAGGTCAC
 ACCACCCTCTGCTGAAAAAGCAATTCAGTACTTTGTACAGGAACACAGATCGGCAAGAAAAAATCC
 AAGATGACAGATGAGGAGATCTTAGAGAAGCTAAGAAGCATTGTGAGTGTGGGGACCCAAAGAAAAAT
 ACACAAGATTTGAAAAAATTGGTCAAGGGGCATCAGGACTGTTTATACAGCACTAGACATTGCAACAGG
 ACAAGAGGTGGCCATAAAGCAGATGAACCTTCAACAGCAACCCAAAGAAGGAATTAATTAATGAAAT
 CTGGTCATGAGGGAAAAAAGAACCCTAATATTGTTAATTTAGATAGCTACTTGGTGGGTGATGAAC
 TATGGGTAGTCATGGAATACTTGGCTGGTGGCTCTGACTGATGTGGTCACAGAGACCTGATGGATGA
 AGGACAGATAGCAGCTGTCTGCAGAGAGTGCCTGCAAGCTTTGGATTTCCCTGCACCTCAAACCAGGTGATC
 CATAGAGATATAAAGAGTGACAATATTCTTCTCGGGATGGATGGCTCTGTTAAATTGACTGACTTTGGT
 TCTGTGCCAGATCACTCCTGAGCAAAGTAAACGAAGCACTATGGTGGGAACCCCATATTGGATGGCACC
 TGAGGTGGTGAACCCCTTACCTTAATGAAAATCCACTCAGGGCATTGTATCTGATAGCCACTAATG
 GAACTCCAGAGCTCCAGAATCCTGAGAGACTGTCAGCTGATTCCGTGACTTTTTAAATCGCTGTCTTGA
 GATGGATGTGGATAGGCGAGGATCTGCCAAGGAGCTTTTGCAGCATCCATTTTTAAATAGCCAAGCCT
 CTCTCCAGCTGACTCCTGATTATCGCTGCAAAGGAAGCAATTAAGAACAGCAGCCGC

ACGCGTACGCGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC225980 representing NM_001128168
 Red=Cloning site Green=Tags(s)

MSDGLDNEEKPPAPPLRMNSNDRSSALNHSSKPLPMAPEEKKKARLRSIFPGGGDKTNKKKEKERPEI
 SLPSPDFEHTIHVGFDAVTGEFTNSPFQTSRPVTVASSQSEGKMPDLYGSQMCPGKLEPIPEQWARLLQT
 SNIKLEQKKNPQAVLDVLFYDSKETVNNQYMSFTSGDKSAHGZIAAHPSSKTASEPPLAPPVSEEE
 DEEEEEEDENEPPIAIPRPEHTKSIYTRSVVESIASPAVPNKEVTPPSAENANSSTLYRNTDRQRKKS
 KMTDEEILEKLRSIVSVGDPKKKYTRFEKIGQGASGTVYALDIATGQEVAIKQMNLLQQPKKELINEI
 LVMRENKPNINYLDSYLVGDELWVMEYLAGGSLTDVVTETCMDEGQIAAVCRECLQALDFLHNSQVI
 HRDIKSDNILLGMDGSVKLTDGFCAQITPEQSKRSTMVGTPTYWMAPEVVTRKAYGPKVDIWSLGIMAIE
 MVEGEPYLNENPLRALYLIATNGTPELQNPRLSAVFRDFLNRCLMDVDRRGSAKELLQHPFLKLAKE
 LSSLTPLIIAAKEAIKNSSR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

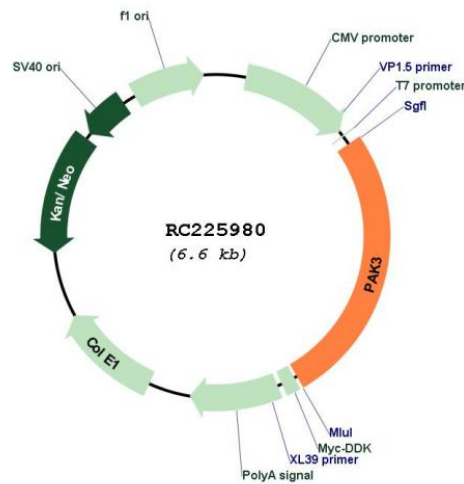
Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001128168
 ORF Size: 1740 bp

OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
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_001128168.3
RefSeq ORF:	1743 bp
Locus ID:	5063
UniProt ID:	O75914
Cytogenetics:	Xq23
Protein Families:	Druggable Genome, Protein Kinase, Stem cell - Pluripotency
Protein Pathways:	Axon guidance, ErbB signaling pathway, Focal adhesion, Regulation of actin cytoskeleton, Renal cell carcinoma, T cell receptor signaling pathway
MW:	64.3 kDa
Gene Summary:	The protein encoded by this gene is a serine-threonine kinase and forms an activated complex with GTP-bound RAS-like (P21), CDC2 and RAC1. This protein may be necessary for dendritic development and for the rapid cytoskeletal reorganization in dendritic spines associated with synaptic plasticity. Defects in this gene are the cause of a non-syndromic form of X-linked intellectual disability. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Jul 2017]