

Product datasheet for **RC225956**

PAK3 (NM_001128173) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PAK3 (NM_001128173) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PAK3
Synonyms:	ARA; beta-PAK; bPAK; MRX30; MRX47; OPHN3; PAK-3; PAK3beta
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC225956 representing NM_001128173
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTCTGACGGTCTGGATAATGAAGAGAAACCCCGGCTCTCCACTGAGGATGAATAGTAAACACCGGG
 ATTCTTACGACTCAACACAGCTCCAAACCACTTCCCATGGCCCTGAAGAGAAGAATAAGAAAGCCAG
 GCTTCGCTCTATCTTCCAGGAGGAGGGGATAAAACCAATAAGAAGAAGGAGAAAGCGCCAGAGATC
 TCTCTTCTTCCAGACTTTGAGCATAAGTTCATGTGGGTTTGTGACAGTACCAGGGAATTCACCTCCAG
 ATCTCTATGGCTCACAGATGTGCCAGGGAAGCTCCAGAGGGAATTCAGAGCAATGGGCACGATTACT
 CCAAACCTCCAACATAACAAAATTGGAACAGAAGAACCACCAAGCTGTTCTAGATGTTCTCAAATTC
 TATGATTCAAAGAAACAGTCAACAACAGAAATACATGAGCTTACATCAGGAGATAAAAGTGCACATG
 GATACATAGCAGCCATCCTTCGAGTACAAAACAGCATCTGAGCCTCCATTGGCCCTCCTGTGTCTGA
 AGAAGAAGATGAAGAGGAAGAAGAAGAAGATGAAAATGAGCCACCACGATTATCGACCAAGACCA
 GAGCATACAAAATCAATCTATACTCGTTCTGTGGTTGAATCCATTGCTTACCAGCAGTACCAAATAAAG
 AGGTACACACCACCTCTGCTGAAAATGCCAATTCAGTACTTTGTACAGGAACACAGATCGGCAAGAAA
 AAAATCCAAGATGACAGATGAGGAGATCTTAGAGAAGCTAAGAAGCATTGTGAGTGTGGGGACCCAAAG
 AAAAAATACACAAGATTTGAAAAATTTGGTCAAGGGGCATCAGGACTGTTTATACAGCACTAGACATTG
 CAACAGGACAAGAGGTGGCCATAAAGCAGATGAACCTTCAACAGCAACCCAAGAAGGAATTAATTATTA
 TGAAATCTGGTCATGAGGGAAAATAAGAACCCTAATATTGTTAATTATTAGATAGCTACTTGGTGGGT
 GATGAACATAGGTTAGTCAATGAACTTGGCTGGTGGCTCTCTGACTGATGTGGTCACAGAGACCTGTA
 TGGATGAAGGACAGATAGCAGCTGTCTGCAGAGAGTGCCTGAGCTTTGGATTTCTGCACTCAAACCA
 GGTGATCCATAGAGATATAAAGAGTGACAATATTCTTCTCGGGATGGATGGCTCTGTAAATTTGACTGAC
 TTTGGTTCTGTGCCAGATCACTCCTGAGCAAAGTAAACGAAGCACTATGGTGGGAACCCCATATTGGA
 TGGCACCTGAGGTGGTACTCGAAAAGCTTATGGTCCGAAAAGTTGATATCTGGTCTCTTGGAAATTATGGC
 AATTGAAATGGTGAAGGTGAACCCCTTACCTTAATGAAAATCCACTCAGGGCATTGTATCTGATAGCC
 ACTAATGGAACCTCAGAGCTCCAGAATCCTGAGAGACTGTCAGCTGTATCCGTGACTTTTTAAATCGCT
 GTCTTGAGATGGATGTGGATAGGCGAGGATCTGCCAAGGAGCTTTTGCAGCATCCATTTTTAAATTAGC
 CAAGCCTCTCTCCAGCCTGACTCCTCTGATTATCGCTGCAAAGGAAGCAATTAAGAACAGCAGCCGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC225956 representing NM_001128173
 Red=Cloning site Green=Tags(s)

MSDGLDNEEKPPAPPLRMNSNDRSSALNHSSKPLPMAPEEKKNKARLRSIFPGGDKTNKKKEKERPEI
 SLPSDFEHTIHVGFDAVTGEFTPDLYGSMCPGKLEGIPEQWARLLQTSNITKLEQKKNPQAVLDVLKF
 YDSKETVNNQKYSFTSGDKSAHGYYAAHPSSTKTASEPPLAPPVSEEEDEEEEEEDENEPPPIAPRP
 EHTKSIYTRSVVESIASPAVNPKEVTPPSAENANSSTLYRNTDRQRKSKMTDEEILEKLSIVSVGDPK
 KKYTRFEKIGQGASGTVYTALDIATGQEVAIKQMNLLQQPKKELINEILVMRENKNPNIVNYLDSYLVG
 DELWVMEYLAGGSLTDVVTETCMDEGQIAAVCRECLQALDFLHSNQVIHRDIKSDNILLGMDGSVKLTD
 FGFCAQITPEQSKRSTMVGTPYWMapevVTRKAYGPKVDIWSLGIMAIEMVEGEPPLNENPLRALYLIA
 TNGTPELQNPERSAVFRDFLNRCLMDVDRRGSAKELLQHPFLKLAKPLSSLTPLIIAAKEAIKNSR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8006_b11.zip

Restriction Sites:

Sgfl-Mlul

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_001128173.3
RefSeq ORF:	1680 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:	62.1 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]