

Product datasheet for **RC225931**

PAK3 (NM_001128166) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PAK3 (NM_001128166) 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



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ORF Nucleotide Sequence:

>RC225931 representing NM_001128166
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCTGACGGTCTGGATAATGAAGAGAAACCCCGGCTCCTCCACTGAGGATGAATAGTAAACACCGGG
 ATTCTTCAGCACTCAACACAGCTCCAAACCACTTCCCATGGCCCTGAAGAGAAGAATAAGAAAGCCAG
 GCTTCGCTCTATCTCCAGGAGGAGGGGATAAAACCAATAAGAAGAAGGAGAAAGAGCGCCAGAGATC
 TCTCTTCTTCAGACTTTGAGCATAAGATTATGTGGGTTTGTGTCAGTCACCGGGGAATTCAGTGGAA
 TTCCAGAGCAATGGGCACGATTACTCAAACCTTCAACATAACAAAATTGGAACAGAAGAAGAACCCACA
 AGCTGTTCTAGATGTTCTCAAATCTATGATTCCAAAGAAACAGTCAACAACAGAAATACATGAGCTTT
 ACATCAGGAGATAAAAGTGCACATGGATACATAGCAGCCATCCTTCGAGTACAAAACAGCATCTGAGC
 CTCATTGGCCCTCCTGTGTCTGAAGAAGAAGATGAAGAGGAAGAAGAAGAAGATGAAAATGAGCC
 ACCACCAGTTATCGACCAAGACCAGAGCATACAAAATCAATCTATACTGTTCTGTGGTGAATCCATT
 GCTTCACCAGCAGTACCAAATAAAGAGGTACACCACCCTCTGCTGAAAATGCCAATTCAGTACTTTGT
 ACAGGAACACAGATCGGCAAAGAAAAAATCCAAGATGACAGATGAGGAGATCTTAGAGAAGCTAAGAAG
 CATTGTGAGTGTGGGGACCCAAAGAAAAAATACACAAGATTTGAAAAATTTGGTCAAGGGGCATCAGGT
 ACTGTTTATACAGCACTAGACATTGCAACAGGACAAGAGGTGGCCATAAAGCAGATGAACCTTCAACAGC
 AACCCAAGAAGGAATTAATTAATGAATCTGGTTCATGAGGGAAAAAAGAACCCTAATATTGTTAA
 TTATTTAGATAGTACTTGGTGGTGTGAAGTATGGGTAGTTCATGGAATACTTGGCTGGTGGCTCTCTG
 ACTGATGTGGTCACAGAGACCTGTATGGATGAAGGACAGATAGCAGCTGTCTGCAGAGAGTGCCTGCAAG
 CTTTGGATTTCTGCACTCAAACCAGGTGATCCATAGAGATATAAAGAGTGACAATTTCTCTCGGGAT
 GGATGGCTCTGTTAAATTGACTGACTTTGGGTTCTGTGCCAGATCACTCCTGAGCAAAGTAAACGAAGC
 ACTATGGTGGAAACCCATATTGGATGGCACCTGAGGTGGTACTCGAAAAGCTTATGGTCCGAAAGTTG
 ATATCTGGTCTCTTGAATTATGGCAATTGAAATGGTGGAAAGGTGAACCCCTTACCTTAATGAAAATCC
 ACTCAGGGCATTGTATCTGATAGCCACTAATGAACTCCAGAGCTCCAGAATCCTGAGAGACTGTGAGCT
 GTATTCGCTGACTTTTTAAATCGCTGTCTTGGATGGATGGATAGGCGAGGATCTGCCAAGGAGCTTT
 TGCAGCATCCATTTTTAAATAGCCAAGCCTCTCCAGCCTGACTCCTGATTATCGCTGCAAAGGA
 AGCAATTAAGAACAGCAGCCG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC225931 representing NM_001128166
 Red=Cloning site Green=Tags(s)

MSDGLDNEEKPPAPPLRMNSNDRDSSALNHSSKPLPMAPEEKNNKARLRSIFPGGGDKTNKKKEKERPEI
 SLPSDFEHTIHVGFDAVTGEFTGIPEQWARLLQTSNITKLEQKKNPQAVLDVLFYDSKETVNQKYMSF
 TSGDKSAHYIAAHPSSKTASEPPLAPPVSEEEDEEEEDENEPPPVIAPRPEHTKSIYTRSVVESI
 ASPAVPNKEVTPPSAENANSSTLYRNTDRQRKSKMTDEEILEKLRISVSVGDPKKKYTRFEKIGQGASG
 TVYTALDIATGQVEAIKQMNLLQQPKKELIINEILVMRENKNPNIVNYLDSYLVGDELWVMEYLAGGSL
 TDVVTETCMDEGQIAAVCRECLQALDFLHNSQVIHRDIKSDNILLGMDGSVKLTDFGFCAQITPEQSKRS
 TMVGTPYWMapevVTRKAYGPKVDIWSLGIMAIEMVEGEPYLNENPLRALYLIATNGTPELQNERLSA
 VFRDFLNRCLMDVDRRGSakellQHPFLKLAKPLSSLTPLIIAAKEAIKNSSR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

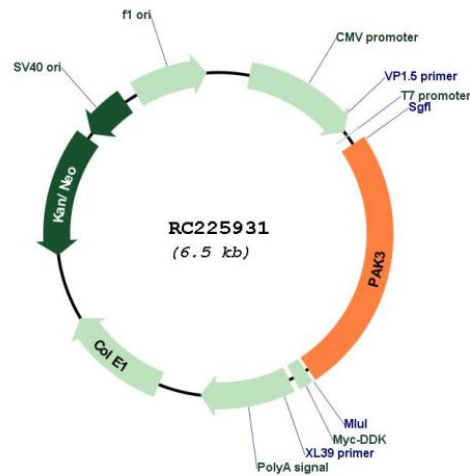
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN:	NM_001128166
ORF Size:	1632 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_001128166.2
RefSeq ORF:	1635 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:	60.5 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]