OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC213831

PAK1 (NM_002576) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PAK1 (NM_002576) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PAK1
Synonyms:	alpha-PAK; IDDMSSD; p65-PAK; PAKalpha
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC213831 representing NM_002576 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGTCAAATAACGGCCTAGACATTCAAGACAAACCCCCAGCCCCTCCGATGAGAAATACCAGCACTATGA TTGGAGCCGGCAGCAAAGATGCTGGAACCCTAAACCATGGTTCTAAACCTCTGCCTCCAAACCCAGAGGA GAAGAAAAAGAAGGACCGATTTTACCGATCCATTTTACCTGGAGATAAAACAAATAAAAAGAAAGAGAAA GAGCGGCCAGAGATTTCTCTCCCTTCAGATTTTGAACACACAATTCATGTCGGTTTTGATGCTGTCACAG GGGAGTTTACGGGAATGCCAGAGCAGTGGGCCCGCTTGCTTCAGACATCAAATATCACTAAGTCGGAGCA GAAGAAAAACCCGCAGGCTGTTCTGGATGTGTTGGAGTTTTACAACTCGAAGAAGACATCCAACAGCCAG AAATACATGAGCTTTACAGATAAGTCAGCTGAGGATTACAATTCTTCTAATGCCTTGAATGTGAAGGCTG TGTCTGAGACTCCTGCAGTGCCACCAGTTTCAGAAGATGAGGATGATGATGATGATGATGCTACCCCACC ACCAGTGATTGCTCCACGCCCAGAGCACACAAAATCTGTATACACACGGTCTGTGATTGAACCACTTCCT GTCACTCCAACTCGGGACGTGGCTACATCTCCCATTTCACCTACTGAAAATAACACCACTCCACCAGATG CTTTGACCCGGAATACTGAGAAGCAGAAGAAGAAGCCTAAAATGTCTGATGAGGAGATCTTGGAGAAATT ACGAAGCATAGTGAGTGTGGGCGATCCTAAGAAGAAATATACACGGTTTGAGAAGATTGGACAAGGTGCT TCAGGCACCGTGTACACAGCAATGGATGTGGCCACAGGACAGGAGGTGGCCATTAAGCAGATGAATCTTC AGCTAAAGAGCTGCTACAGCATCAATTCC ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA

View online »

Protein Sequence:

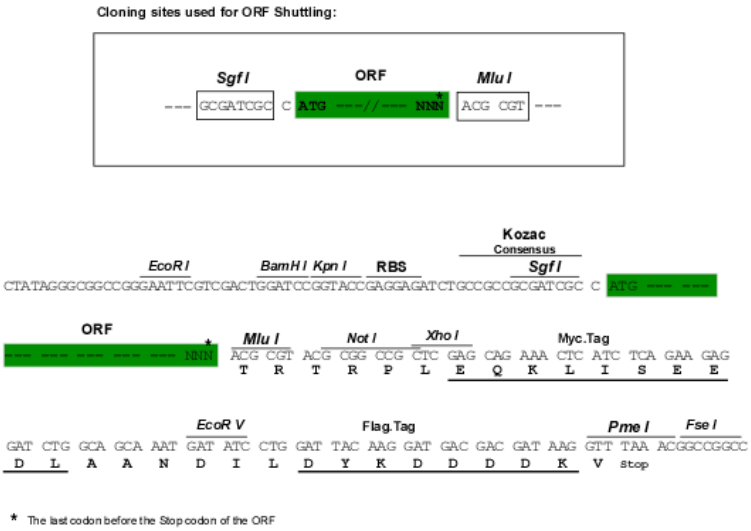
>RC213831 representing NM_002576
Red=Cloning site Green=Tags(s)

MSNNGLDIQDKPPAPPMRNTSTMIGAGSKDAGTLNHGSKPLPPNPEEKKKKDRFYRSILPGDKTNKKKEK
ERPEISLPSDFEHTIHVGFDAVTGEFTGMPEQWARLLQTSNITKSEQKKNPQAVLDVLEFYNSKKTSNSQ
KYMSFTDKSAEDYNSSNALNVKAVSETPAVPPVSEDEDDDDDDATPPPVIAPRPEHTKSVYTRSVIEPLP
VTPTRDVATSPISPTENNTTPPDALTRNTEKQKKKPKMSDEEILEKLRSIVSVGDPKKKYTRFEKIGQGA
SGTVYTAMDVATGQEVAIKQMNLQLKSCYSINS

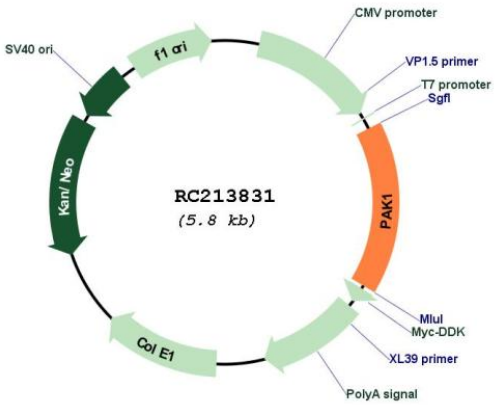
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_002576

ORF Size: 1019 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:	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 Size:	3264 bp
RefSeq ORF:	1638 bp
Locus ID:	5058
UniProt ID:	Q13153
Cytogenetics:	11q13.5-q14.1
Domains:	PBD, pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase, Stem cell - Pluripotency
Protein Pathways:	Axon guidance, Chemokine signaling pathway, Epithelial cell signaling in Helicobacter pylori infection, ErbB signaling pathway, Fc gamma R-mediated phagocytosis, Focal adhesion, MAPK signaling pathway, Natural killer cell mediated cytotoxicity, Regulation of actin cytoskeleton, Renal cell carcinoma, T cell receptor signaling pathway
MW:	34.58 kDa
Gene Summary:	This gene encodes a family member of serine/threonine p21-activating kinases, known as PAK proteins. These proteins are critical effectors that link RhoGTPases to cytoskeleton reorganization and nuclear signaling, and they serve as targets for the small GTP binding proteins Cdc42 and Rac. This specific family member regulates cell motility and morphology. Mutations in this gene have been associated with macrocephaly, seizures, and speech delay. Overexpression of this gene is also reported in many cancer types, and particularly in breast cancer. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2020]