

Product datasheet for **RG214173**

PAK5 (NM_177990) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PAK5 (NM_177990) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PAK5
Synonyms:	PAK7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide
Sequence:

>RG214173 representing NM_177990
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTTTGGGAAGAAAAAGAAAAGATTGAAATATCTGGCCGTCCAACCTTGAACACAGGGTTCATACTG
 GGTTTGATCCACAAGAGCAGAAGTTTACCGGCCTTCCCCAGCAGTGGCACAGCCTGTTAGCAGATACGGC
 CAACAGGCCAAAGCCTATGGTGGACCTTCATGCATCACACCCATCCAGCTGGCTCCTATGAAGACAATC
 GTTAGAGGAAACAAACCTGCAAGGAAACCTCCATCAACGGCCTGCTAGAGGATTTTGACAACATCTCGG
 TGACTCGTCCAACCTCCCTAAGGAAAGAAAGCCACCCACCCAGATCAGGGAGCCTCCAGCCACGGTCC
 AGGCCACGCGGAAGAAAATGGCTTCATCACCTTCTCCAGTATTCACGCGAATCCGATACTACTGCTGAC
 TACACGACCGAAAAGTACAGGGAGAAGAGTCTCTATGGAGATGATCTGGATCCGTATTATAGAGGCAGCC
 ACGCAGCCAAGCAAAATGGGCACGTAATGAAAATGAAGCACGGGGAGGCCTACTATTCTGAGGTGAAGCC
 TTTGAAATCCGATTTTGGCAGATTTTCTGCCGATTATCACTCACATTTGGACTCACTGAGCAAACCAAGT
 GAATACAGTGACCTCAAGTGGGAGTATCAGAGAGCCTCGAGTAGCTCCCTCTGGATTATTCATTCCAAT
 TCACACCTTCTAGAACTGCAGGGACCAGCGGTGCTCCAAGGAGAGCCTGGCGTACAGTGAAGTGAATG
 GGGACCCAGCCTGGATGACTATGACAGGAGGCCAAAGTCTTCGTACCTGAATCAGACAAGCCCTCAGCCC
 ACCATGCGGCAGAGGTCCAGGTCAGGCTCGGGACTCCAGGAACCGATGATGCCATTTGGAGCAAGTGCAT
 TAAAAACCCATCCCCAAGGACACTCCTACAACCTACACCTACCTCGTTGTCCGAGCCCAATGTG
 CATTCCAAAGGTGGATTACGATCGAGCACAGATGGTCTCAGCCCTCCACTGTGAGGGTCTGACACCTAC
 CCCAGGGGCCCTGCCAACTACCTCAAAGTCAAAGCAAATCGGGCTATTCTCAAGCAGTACCAGTACC
 CGTCTGGGTACCACAAAGCCACCTTGACCATCACCCCTCCCTGCAGAGCAGTTCGACGTACATCTCCAC
 GGCTTCTACCTGAGCTCCCTCAGCCTCTCATCCAGCACCTACCCGCGCCAGCTGGGGCTCCTCCTCC
 GACCAGCAGCCCTCCAGGGTGTCCCATGAACAGTTTCGGGCGGCCCTGCAGCTGGTGGTACGCCAGGAG
 ACCCCAGGGAATACTTGGCCAACTTTATCAAAATCGGGGAAGGCTCAACCGGCATCGTATGCATCGCCAC
 CGAGAAACACACAGGAAACAAGTTGCAGTGAAGAAAATGGACCTCCGGAAGCAACAGAGACGAGAATTG
 CTTTTCAATGAGGTGATGATGCGGGATTACCACCATGACAATGTGGTTGACATGTACAACAGCTACC
 TTGTCGGCGATGAGCTCTGGGTGGTTCATGGAGTTTCTAGAAGTGGTGCCTTGACAGACATTGTGACTCA
 CACCAGAATGAATGAAGAACAGATAGCTACTGTCTGCCTGTCAGTTCTGAGAGCTCTCCTACCTTCAT
 AACCAAGGAGTGATTCACAGGGACATAAAAAGTACTCCATCCTCCTGACAAGCGATGGCCGGATAAAGT
 TGTCTGATTTTGGTTTCTGTGCTCAAGTTTCAAAGAGGTGCCGAAGAGGAAATCATTGGTTGGCACTCC
 CTACTGGATGGCCCTGAGGTGATTTCTAGGCTACCTTATGGGACAGAGGTGGACATCTGGTCCCTCGGG
 ATCATGGTGATAGAAATGATTGATGGCGAGCCCCCTACTTCAATGAGCCTCCCTCCAGGCGATGCGGA
 GGATCCGGGACAGTTTACCTCCAAGAGTGAAGGACCTACACAAGTTTCTCAGTGTCCGGGGATTCTT
 AGACTTGATGTTGGTGAAGGAGCCCTCTCAGAGAGCAACAGCCAGGAATCCTCGGACATCCATTCTTA
 AAAGTACAGGTCACCCGTCTTGATCGTCCCCCTCATGAGACAATACAGGCATCAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG214173 representing NM_177990
 Red=Cloning site Green=Tags(s)

MFGKKKKKIEISGPSNFEHRVHTGFDPEQKFTGLPQQWHSLLADTANRPKPMVDPSCITPIQLAPMKTI
 VRGNPKCKETSINGLLEDFDNISVTRSNSLRKESPTPDQGASSHGPGHAEENGFIITFSQYSSSEDTTAD
 YTTEKYREKSLYGDDLDPPYRGSAAKQNGHVMKMKHGEAYYSEVKPLKSDFAFASADYHSHLDSLKPS
 EYSDLKWEYQRASSSSPLDYSFQFTPSRTAGTSGCSKESLAYSESEWGPSLDDYDRRPKSSYLNQTSQP
 TMRQRSRSGSGLQEPMPFGASAFKTHPQGHSYNSYTYPRLSEPTMCIPKVDYDRAQMVLSPLSGSDTY
 PRGPAKL PQSQSKSGYSSSSHQYPSGYHKATLYHHPSLQSSSQYISTASYLSSLSSSTYPPPSWGSSS
 DQQPSRVSHEQFRAALQLVVSFGDPREYLANFIKIGEGSTGIVCIATEKHTGKQVAVKMKMDLRKQQRREL
 LFNEVIMRDYHHDNVDMYNSYLVGDELWVWMEFLEGGALTDIVTHTRMNEEQIATVCLSVLRALSYLH
 NQGVIIHRDIKSDSILLTSDGRIKLSDFGCAQVSKEVPKRKS LVGTPYWMPEVISRLPYGTEVDIWSLG
 IMVIEMIDGEPYPFNEPPLQAMRRIRDSLPPRVKDLHKVSSVLRGFLDLMLVREPSQRATAQELLGHPFL
 KLAGPPSCIVPLMRQYRHH

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_177990

ORF Size: 2157 bp

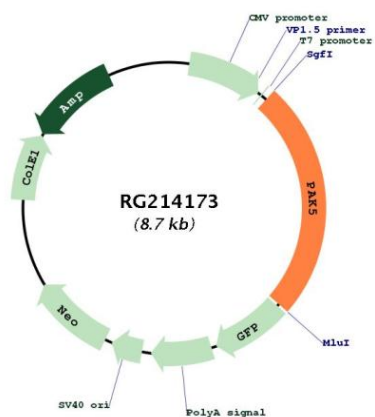
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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_177990.1 , NP_817127.1
RefSeq Size:	4506 bp
RefSeq ORF:	2160 bp
Locus ID:	57144
UniProt ID:	Q9P286
Cytogenetics:	20p12.2
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:	<p>The protein encoded by this gene is a member of the PAK family of Ser/Thr protein kinases. PAK family members are known to be effectors of Rac/Cdc42 GTPases, which have been implicated in the regulation of cytoskeletal dynamics, proliferation, and cell survival signaling. This kinase contains a CDC42/Rac1 interactive binding (CRIB) motif, and has been shown to bind CDC42 in the presence of GTP. This kinase is predominantly expressed in brain. It is capable of promoting neurite outgrowth, and thus may play a role in neurite development. This kinase is associated with microtubule networks and induces microtubule stabilization. The subcellular localization of this kinase is tightly regulated during cell cycle progression. Alternatively spliced transcript variants encoding the same protein have been described. [provided by RefSeq, Jul 2008]</p>

Product images:



Circular map for RG214173