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Product datasheet for RG205255

PAK5 (NM_020341) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PAK5 (NM_020341) 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)

ORF Nucleotide Sequence:

>RG205255 representing NM_020341
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTTTGGGAAGAAAAAGAAAAAGATTGAAATATCTGGCCCGTCCAACTTTGAACACAGGGTTCATACTG
GGTTTGATGCACAAGAGCAGAAGTTTACCGGCCTTCCCCAGCAGTGGCACAGCCTGTTAGCAGATACGGC
CAACAGGCCAAAGCCTATGGTGGACCCTTCATGCATCACACCCATCCAGCTGGCTCCTATGAAGACAATC
GTTAGAGGAAACAAACCCTGCAAGGAAACCTCCATCAACGGCCTGCTAGAGGATTTTGACAACATCTCGG
TGACTCGCTCCAACTCCCTAAGGAAAGAAAGCCCACCCACCCCAGATCAGGGAGCCTCCAGCCACGGTCC
AGGCCACGCGGAAGAAAATGGCTTCATCACCTTCTCCCAGTATTCCAGCGAATCCGATACTACTGCTGAC
TACACGACCGAAAAGTACAGGGAGAAGAGTCTCTATGGAGATGATCTGGATCCGTATTATAGAGGCAGCC
ACGCAGCCAAGCAAAATGGGCACGTAATGAAAATGAAGCACGGGGAGGCCTACTATTCTGAGGTGAAGCC
TTTGAAATCCGATTTTGCCAGATTTTCTGCCGATTATCACTCACATTTGGACTCACTGAGCAAACCAAGT
GAATACAGTGACCTCAAGTGGGAGTATCAGAGAGCCTCGAGTAGCTCCCCTCTGGATTATTCATTCCAAT
TCACACCTTCTAGAACTGCAGGGACCAGCGGGTGCTCCAAGGAGAGCCTGGCGTACAGTGAAAGTGAATG
GGGACCCAGCCTGGATGACTATGACAGGAGGCCAAAGTCTTCGTACCTGAATCAGACAAGCCCTCAGCCC
ACCATGCGGCAGAGGTCCAGGTCAGGCTCGGGACTCCAGGAACCGATGATGCCATTTGGAGCAAGTGCAT
TTAAAACCCATCCCCAAGGACACTCCTACAACTCCTACACCTACCCTCGCTTGTCCGAGCCCACAATGTG
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CCCAGGGGCCCTGCCAAACTACCTCAAAGTCAAAGCAAATCGGGCTATTCCTCAAGCAGTCACCAGTACC
CGTCTGGGTACCACAAAGCCACCTTGTACCATCACCCCTCCCTGCAGAGCAGTTCGCAGTACATCTCCAC
GGCTTCCTACCTGAGCTACCTCAGCCTCTCATCCAGCACCTACCCGCCGCCCAGCTGGGGCTCCTCCTCC
GACCAGCAGCCCTCCAGGGTGTCCCATGAACAGTTTCGGGCGGCCCTGCAGCTGGTGGTCAGCCCAGGAG
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TTGTCGGCGATGAGCTCTGGGTGGTCATGGAGTTTCTAGAAGGTGGTGCCTTGACAGACATTGTGACTCA
CACCAGAATGAATGAAGAACAGATAGCTACTGTCTGCCTGTCAGTTCTGAGAGCTCTCTCCTACCTTCAT
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TGTCTGATTTTGGTTTCTGTGCTCAAGTTTCCAAAGAGGTGCCGAAGAGGAAATCATTGGTTGGCACTCC
CTACTGGATGGCCCCTGAGGTGATTTCTAGGCTACCTTATGGGACAGAGGTGGACATCTGGTCCCTCGGG
ATCATGGTGATAGAAATGATTGATGGCGAGCCCCCCTACTTCAATGAGCCTCCCCTCCAGGCGATGCGGA
GGATCCGGGACAGTTTACCTCCAAGAGTGAAGGACCTACACAAGGTTTCTTCAGTGCTCCGGGGATTCCT
AGACTTGATGTTGGTGAGGGAGCCCTCTCAGAGAGCAACAGCCCAGGAACTCCTCGGACATCCATTCTTA
AAACTAGCAGGTCCACCGTCTTGCATTGTCCCCCTCATGAGACAATACAGGCATCAC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

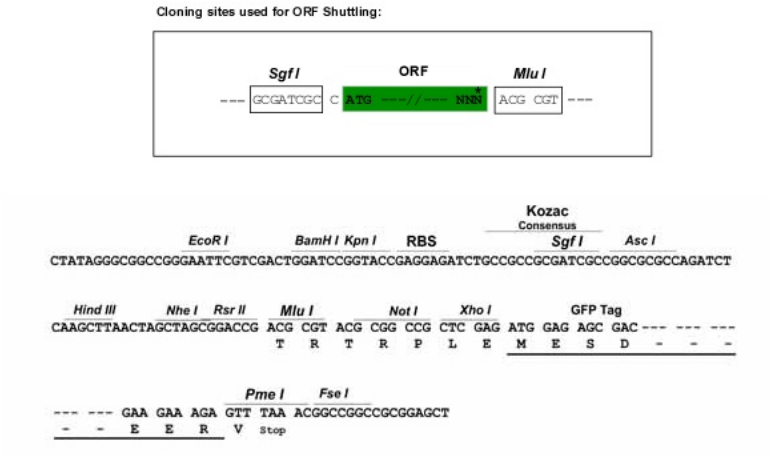
>RG205255 representing NM_020341
Red=Cloning site Green=Tags(s)

MFGKKKKKIEISGPSNFEHRVHTGFDAQEQKFTGLPQQWHSLLADTANRPKPMVDPSCITPIQLAPMKTI
VRGNKPCKETSINGLLEDFDNISVTRSNSLRKESPPTPDQGASSHGPGHAEENGFITFSQYSSESDTTAD
YTTEKYREKSLYGDDLDPYYRGSHAAKQNGHVMKMKHGEAYYSEVKPLKSDFARFSADYHSHLDSLSKPS
EYSDLKWEYQRASSSSPLDYSFQFTPSRTAGTSGCSKESLAYSESEWGPSLDDYDRRPKSSYLNQTSPQP
TMRQRSRSGSGLQEPMMPFGASAFKTHPQGHSYNSYTYPRLSEPTMCIPKVDYDRAQMVLSPPLSGSDTY
PRGPAKLPQSQSKSGYSSSSHQYPSGYHKATLYHHPSLQSSSQYISTASYLSYLSLSSSTYPPPSWGSSS
DQQPSRVSHEQFRAALQLVVSPGDPREYLANFIKIGEGSTGIVCIATEKHTGKQVAVKKMDLRKQQRREL
LFNEVVIMRDYHHDNVVDMYSSYLVGDELWVVMEFLEGGALTDIVTHTRMNEEQIATVCLSVLRALSYLH
NQGVIHRDIKSDSILLTSDGRIKLSDFGFCAQVSKEVPKRKSLVGTPYWMAPEVISRLPYGTEVDIWSLG
IMVIEMIDGEPPYFNEPPLQAMRRIRDSLPPRVKDLHKVSSVLRGFLDLMLVREPSQRATAQELLGHPFL
KLAGPPSCIVPLMRQYRHH

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_020341

ORF Size: 2157 bp

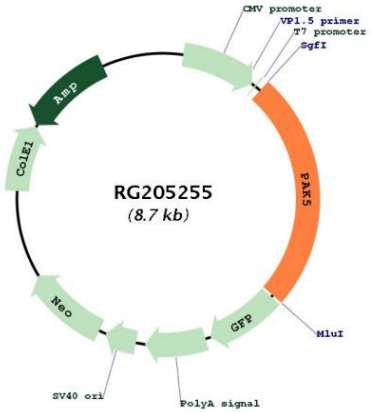
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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:	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_020341.2, NP_065074.1
RefSeq Size:	4655 bp
RefSeq ORF:	2160 bp
Locus ID:	57144
UniProt ID:	Q9P286
Cytogenetics:	20p12.2
Domains:	PBD, pkinase
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:	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]

Product images:



Circular map for RG205255