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Product datasheet for RR203432

Pak7 (NM_001107781) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pak7 (NM_001107781) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Pak7
Synonyms:	PAK-5; PAK-7; Pak5
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

View online »

ORF Nucleotide Sequence:

>RR203432 representing NM_001107781
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTTTGGGAAGAAAAAGAAAAAGATCGAAATATCCGGCCCATCTAACTTTGAACACAGGGTTCATACTG
GGTTTGATCCACAAGAGCAGAAGTTTACTGGCCTTCCCCAGCAGTGGCACAGCCTGTTAGCAGACACAGC
CAACAGGCCCAAGCCTATGGTGGATCCATCATGCATCACACCCATACAACTGGCTCCCATGAAGACAATC
GTCAGAGGAAATAAATCCTGCAAGGAAAGCTCTATCAACGGTCTGCTAGAGGATTTCGACAACATCTCCG
TGACTCGCTCCAACTCCCTAAGGAAAGAAAGCCCACCCACCCCAGATCAGGGAGCAGCTAGCCGCATTCA
AGGCCACTCCGAAGAAAACGGCTTCATTACTTTCTCACAATATTCTAGTGAATCTGATACTACTACGGAC
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TTTGAAATCCGACCTGGCCAGATTCCCTGTCGACTATCACACACACTTGGACTCGCTGAGCAAAGCAAGT
GAGTACGGTGACCTCAAGTGGGATTATCAGCGAGCCTCCAGTAGCTCCCCTCTGGACTACTCATTCCAGC
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TCCGGGACAGTTTACCTCCAAGAGTGAAGGACCTGCACAAGGTTTCTTCCATGCTCCGAGGATTCCTAGA
TCTTATGTTGGTGAGGGAGCCCTCTCAAAGAGCCACAGCTCAAGAACTTCTTGGACATCCATTCTTAAAA
TTGGCAGGCCCGCCATCTTGCATCGTTCCCCTCATGAGACAATATAGGCATCAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RR203432 representing NM_001107781
Red=Cloning site Green=Tags(s)

MFGKKKKKIEISGPSNFEHRVHTGFDPQEQKFTGLPQQWHSLLADTANRPKPMVDPSCITPIQLAPMKTI
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YTTEKYRDRSLYGDDLDLYYRGSHAAKQNGHAMKMKHGDAYYPEMKPLKSDLARFPVDYHTHLDSLSKAS
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AMRQRSKSGSGLQEPMMPFGASAFKTHPQGHSYNSYTYPRLSEPTMCIPKVDYDRAQMVFSPPLSGSDTY
PRGPTKLPQSQSKVGYSSSSHQYPGYHKASLYHHPSLQTSSQYISTASYLSSLSISSSTYPPPSWGSSSD
QQPSRVSHEQFRAALQLVVSPGDPREYLDNFIKIGEGSTGIVCIATEKHTGKQVAVKKMDLRKQQRRELL
FNEVVIMRDYHHDNVVDMYNSYLVGDELWVVMEFLEGGALTDIVTHTRMNEEQIATVCLSVLKALSYLHN
QGVIHRDIKSDSILLTSDGRIKLSDFGFCAQVSKEVPKRKSLVGTPYWMAPEVISRLPYGTEVDIWSLGI
MVIEMIDGEPPYFNEPPLQAMRRIRDSLPPRVKDLHKVSSMLRGFLDLMLVREPSQRATAQELLGHPFLK
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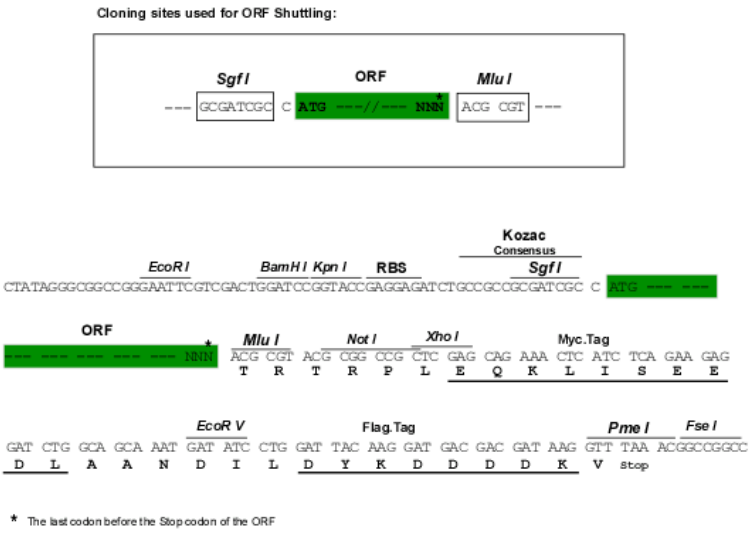
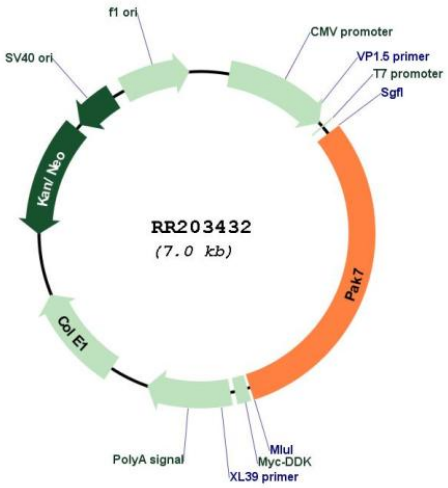
Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_001107781
ORF Size:	2154 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_001107781.1, NP_001101251.1
RefSeq Size:	4040 bp
RefSeq ORF:	2157 bp

Locus ID:	311450
UniProt ID:	D4A280
Cytogenetics:	3q36
MW:	80.9 kDa
Gene Summary:	Serine/threonine protein kinase that plays a role in a variety of different signaling pathways including cytoskeleton regulation, cell migration, proliferation or cell survival. Activation by various effectors including growth factor receptors or active CDC42 and RAC1 results in a conformational change and a subsequent autophosphorylation on several serine and/or threonine residues. Phosphorylates the proto-oncogene RAF and stimulates its kinase activity. Promotes cell survival by phosphorylating the BCL2 antagonist of cell death BAD. Phosphorylates CTNND1, probably to regulate cytoskeletal organization and cell morphology. Keeps microtubules stable through MARK2 inhibition and destabilizes the F-actin network leading to the disappearance of stress fibers and focal adhesions (By similarity). [UniProtKB/Swiss-Prot Function]