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Product datasheet for MG209234

Pak4 (NM_027470) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pak4 (NM_027470) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Pak4
Synonyms:	5730488L07Rik; AW555722; mKIAA1142
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

View online »

ORF Nucleotide Sequence:

>MG209234 representing NM_027470
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTTTGGAAAGAAGAAGAAGCGGGTGGAGATCTCAGCCCCATCCAACTTCGAGCACCGTGTACACACAG
GCTTTGATCAGCATGAGCAGAAGTTCACAGGGCTGCCCCGCCAGTGGCAGAGCCTGATTGAGGAATCAGC
ACGCAGACCCAAGCCCCTGATCGACCCTGCCTGCATCACGTCCATCCAGCCTGGAGCCCCCAAGACCATC
GTTCGGGGCAGCAAAGGTGCCAAGGATGGGGCTCTCACTCTGCTGCTTGACGAATTTGAGAACATGTCGG
TGACGCGCTCCAACTCCCTACGCAGAGAGAGTCCACCACCACCTGCCCGTGCCCACCAGGAGAATGGAAT
GCTGGAGGAGCGGGCAGCCCCGGCCAGAATGGCCCCTGACAAAGCTGGAAGCAGAGCCCGGGCCACAGGC
CACAGTGAGGCAGGCAGTGGCAGTGGTGACAGACGGCGGGTGGGGCCAGAGAAAAGGCCCAAATCTTCGA
GGGATGGTCCAGGAGGACCCCAGGAGGCCTCCCGCGATAAGCGCCCACTCTCTGGGCCTGATGTCAGCAC
TCCTCAGCCTGGCAGTCTGACCAGCGGGACAAAACTAGCAGCTGGCAGGCCCTTTAACACATACCCACGG
GCTGACACGGACCACCCACCCCGCGGTGCCCAGGGGGAGCCACATACCATGGCCCCTAATGGGCCTTCAG
CCACAGGCCTGGCCGCTCCTCAGTCTTCCTCCTCCTCCCGGCCTCCCACCCGAGCCCGTGGTGCTCCCAG
CCCAGGAGTTCTGGGTCCCCATGCCTCTGAGCCCCAGTTGGCCCCCCCAGCACGTGCCCTTGCTGCCCCT
GCTGTACCTCCTGCCCCTGGGCCCCCTGGGCCTCGCTCACCACAGCGGGAGCCCCAACGAGTGTCCCATG
AGCAGTTCCGGGCTGCCCTGCAGCTGGTGGTGGACCCAGGGGACCCTCGTTCCTATCTAGACAACTTCAT
CAAGATTGGTGAGGGCTCTACAGGTATTGTGTGCATTGCCACTGTACGCAGCTCAGGCAAACTGGTGGCC
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ACTACCGGCACGAGAACGTGGTGGAGATGTACAACAGCTACCTGGTGGGTGACGAACTCTGGGTCGTCAT
GGAGTTCCTGGAAGGCGGCGCCCTCACGGATATTGTCACCCACACCAGGATGAACGAGGAACAGATCGCC
GCCGTGTGCCTGGCTGTGCTTCAGGCGCTGGCTGTGCTCCACGCCCAGGGTGTCATCCACCGTGACATCA
AGAGTGACTCTATCTTGCTGACCCATGATGGCCGGGTGAAGCTGTCCGACTTCGGGTTTTGTGCCCAGGT
GAGCAAGGAGGTGCCTCGGAGGAAGTCGCTGGTGGGCACCCCGTATTGGATGGCCCCGGAGCTCATCTCC
CGCCTTCCCTATGGGCCAGAGGTGGATATCTGGTCACTGGGGGTGATGGTGATCGAGATGGTGGATGGGG
AGCCCCCTTACTTCAACGAGCCACCCCTCAAAGCTATGAAGATGATCCGGGACAACCTCCCGCCCCGATT
GAAGAACCTGCACAAGGCGTCACCGTCTCTGAAAGGCTTCTTGGATCGCCTGCTAGTGCGGGACCCGGCC
CAGCGGGCCACTGCTGCCGAGCTGCTGAAGCACCCGTTCCTCACCAAGGCGGGGCCACCAGCCAGCATCG
TGCCCCTGATGCGCCAGCACCGAACCAGA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

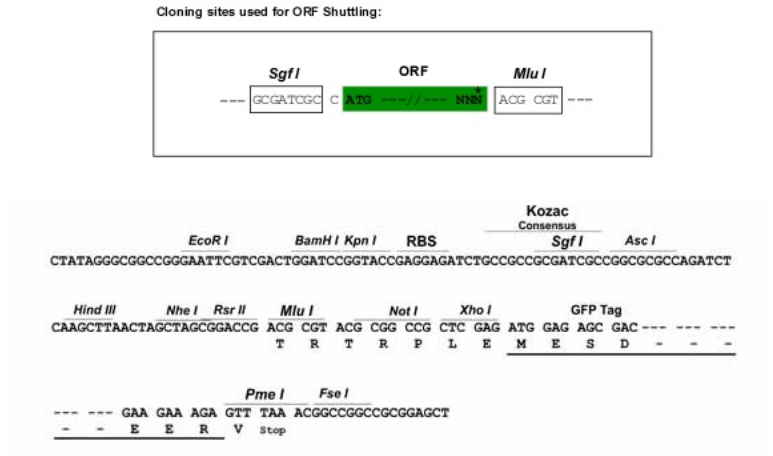
>MG209234 representing NM_027470
Red=Cloning site Green=Tags(s)

MFGKKKKRVEISAPSNFEHRVHTGFDQHEQKFTGLPRQWQSLIEESARRPKPLIDPACITSIQPGAPKTI
VRGSKGAKDGALTLLLDEFENMSVTRSNSLRRESPPPPARAHQENGMLEERAAPARMAPDKAGSRARATG
HSEAGSGSGDRRRVGPEKRPKSSRDGPGGPQEASRDKRPLSGPDVSTPQPGSLTSGTKLAAGRPFNTYPR
ADTDHPPRGAQGEPHTMAPNGPSATGLAAPQSSSSSRPPTRARGAPSPGVLGPHASEPQLAPPARALAAP
AVPPAPGPPGPRSPQREPQRVSHEQFRAALQLVVDPGDPRSYLDNFIKIGEGSTGIVCIATVRSSGKLVA
VKKMDLRKQQRRELLFNEVVIMRDYRHENVVEMYNSYLVGDELWVVMEFLEGGALTDIVTHTRMNEEQIA
AVCLAVLQALAVLHAQGVIHRDIKSDSILLTHDGRVKLSDFGFCAQVSKEVPRRKSLVGTPYWMAPELIS
RLPYGPEVDIWSLGVMVIEMVDGEPPYFNEPPLKAMKMIRDNLPPRLKNLHKASPSLKGFLDRLLVRDPA
QRATAAELLKHPFLTKAGPPASIVPLMRQHRTR

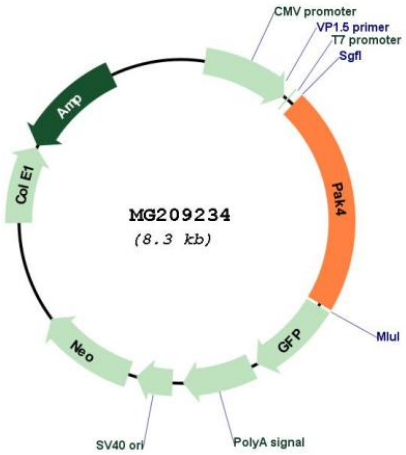
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_027470

ORF Size: 1779 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_027470.2
RefSeq Size:	2898 bp
RefSeq ORF:	1782 bp
Locus ID:	70584
UniProt ID:	Q8BTW9
Cytogenetics:	7 B1
Gene Summary:	Serine/threonine protein kinase that plays a role in a variety of different signaling pathways including cytoskeleton regulation, cell migration, growth, 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 and inactivates the protein phosphatase SSH1, leading to increased inhibitory phosphorylation of the actin binding/depolymerizing factor cofilin. Decreased cofilin activity may lead to stabilization of actin filaments. Phosphorylates LIMK1, a kinase that also inhibits the activity of cofilin. Phosphorylates integrin beta5/ITGB5 and thus regulates cell motility. Phosphorylates ARHGEF2 and activates the downstream target RHOA that plays a role in the regulation of assembly of focal adhesions and actin stress fibers. Stimulates cell survival by phosphorylating the BCL2 antagonist of cell death BAD. Alternatively, inhibits apoptosis by preventing caspase-8 binding to death domain receptors in a kinase independent manner. Plays a role in cell-cycle progression by controlling levels of the cell-cycle regulatory protein CDKN1A and by phosphorylating RAN.[UniProtKB/Swiss-Prot Function]