

Product datasheet for **MC204741**

Pak3 (NM_008778) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pak3 (NM_008778) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Pak3
Synonyms:	PAK-3; Pak65alpha; Pak65beta; Stk4
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >BC053403
AAGAGGTAATCCCCAGCCCATCTGAGTTCACTTTGCATCTCAATTTTGTCTTCAACCTCTTTGATCCTC
TGCCAGCTTTGAGTCATCTTCAGACGTGGAGCTGTGAAATCAGCTGCAACTGAAATGTCTGACAGCTTG
GATAACGAAGAAAAACCCCACTCCCCACTGAGGATGAACAGTAACAACCGAGACTCTTCAGCACTCA
ACCACAGCTCCAAACACTGCCCATGGCCCCGGAAGAGAAGAATAAGAAAGCCAGGCTTCGCTCTATCTT
CCCAGGAGGAGGGGATAAAACCAATAAGAAGAAAGAGAAAGAGCGCCAGAGATCTCTTCCTTCAGAC
TTTGAGCATACGATTCATGTGGTTTTGATGCAGTCACCGGGGAATTCAGTGAATTCCTGAGCAATGGG
CAGCACTACTCCAAACCTCCAACATAACAAGCTGGAACAGAAGAAGAACCACAAGCTGTTCTTGATGT
TCTCAAGTTCTACGACTCCAAGAAACGGTCAACAACCGAAATATATGAGCTTTACGTCAGGAGATAAAA
AGTGCCCATGGATACATAGCAGCACATCAGTCGAATACCAAAACAGCTTCGGAACCTCCTTTGGCTCCTC
CTGTATCTGAAGAAGAGGATGAAGAAGAGGAAGAGGAAGAAGTGACAATGAACCTCCGCTGTCTTGC
ACCAAGACCAGAGCATACAAAATCAATCTATACTCGCTCCGTGGTTGAGTCAATTGCTTCACCAGCTGCA
CCAAATAAAGAAGATATCCACCTTCTGCTGAGAATGCCAATCCACCCTTTGTACAGGAATACAGATC
GGCAAAGAAAAAGTCCAAGATGACGGATGAGGAGATCCTAGAGAAGCTGAGAAGCATTGTGAGTGTGG
GGACCCAAAGAAGAAATATACGAGATTTGAAAAATTGGCCAAGGGGCATCAGGAACTGTTTACACAGCA
CTAGACATTGCGACTGGACAAGAGGTGGCCATAAAGCAAATGAACCTTCAACAGCAGCCAAAAAGGAAT
TAATTATTAATGAAATCTTGTCTGATGAGGGAAAAAAGAACCCTAATTTGTCAATTATTTAGATAGCTA
CTTAGTGGGTGATGAACTGTGGGTAGTCATGGAATACTTGGCTGGTGGCTCTTTGACTGATGTGGTCACA
GAAACCTGTATGGATGAAGGACAGATAGCAGCTGTCTGTAGAGAGTGCCTCAAGCTTTGGATTTCTTGC
ACTCAAACCAAGTATCCACAGAGACATAAAGAGCGACAACATTTCTCCTCGGGATGGATGGTTCTGTAA
ACTGACTGATTTTGGGTTCTGTGCTCAAATCACTCCTGAGCAAAGTAAACGAAGCACTATGGTGGAACT
CCCTATTGGATGGCACCTGAAGTGGTAACTCGAAAAGCTTATGGTCCAAAAGTTGATATCTGGTCTCTGG
GAATCATGGCCATTGAAATGGTGGAGGTGAACCCCTTACCTTAATGAAAATCCACTCAGGGCCTTATA
TCTGATAGCCCACTAATGGGACCCAGAGCTCCAGAATCCTGAGAGACTGTCAGCTGATTCCGTGACTTC
TTAAATCGCTGTCTTGAGATGGATGTGGATAGAAGAGGATCTGCTAAGGAGCTTTTGCAGCATCCGTTTT
TAAAATTAGCCAAGCCTCTGTCTAGTCTCACTCCTCTGATTATCGCCGCAAGGAAGCAATTAAGAACAG
TAGCCGTTAGAACTGCAAGCCTTACCCCTCACGGTCTCCAGGATGAGTAAGACTGAAATAAACTCTGCT
GCAGGATCCACAGAAGAAGACAGTCAAATGGAGTGGGGCTCTTAACTTTTAAAGTGAATAGAAACTT
CTTATAAACCTTTTTCTACTCCCTCAGATTATGTAATTTATTTGTAAGCCTGAACTGCAGCCACACAG
GGCAGCAATGTCAAGTAGCCATTAAGTGGCCACTTCCACCGTGAAGCGAAAGAGCCAGTAGTGAATCCC
CTCATTGTGCTATTTACTTTGAAGAAAAAAGATTTCTCAAAGATGCACACTCCCTCTTCATAGTGCTG
TGTTTGTTTTAAAGTTAGAGAGTAGTCCCTCTTTCATTGAACTCTTTCAAATCCCTTACCCAACGTG
ATGTTTTTCACTTGCAATTGTCATTAGATGTTTCAGAAAAATAAAGATGTCAAAATGTTTTTTAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Restriction Sites: RsrII-NotI

ACCN: NM_008778

Insert Size: 1635 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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: [BC053403](#), [AAH53403](#)

RefSeq Size: 2270 bp

RefSeq ORF: 1635 bp

Locus ID: 18481

UniProt ID: [Q61036](#)

Cytogenetics: X F2

Gene Summary: Serine/threonine protein kinase that plays a role in a variety of different signaling pathways including cytoskeleton regulation, cell migration, or cell cycle regulation. Plays a role in dendrite spine morphogenesis as well as synapse formation and plasticity (PubMed:25851601). Acts as downstream effector of the small GTPases CDC42 and RAC1. Activation by the binding of active CDC42 and RAC1 results in a conformational change and a subsequent autophosphorylation on several serine and/or threonine residues. Phosphorylates MAPK4 and MAPK6 and activates the downstream target MAPKAPK5, a regulator of F-actin polymerization and cell migration. Additionally, phosphorylates TNNI3/troponin I to modulate calcium sensitivity and relaxation kinetics of thin myofilaments. May also be involved in early neuronal development.[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (4) differs in the 5' UTR and lacks two consecutive in-frame exons in the 5' coding region, compared to variant 1. This results in a shorter protein (isoform D), compared to isoform A. Both variants 4 and 5 encode the same protein (isoform D).

Sequence Note: This RefSeq record was created from genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.