

Product datasheet for **MC220189**

Katnb1 (NM_028805) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Katnb1 (NM_028805) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Katnb1
Synonyms:	2410003J24Rik; KAT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >MC220189 representing NM_028805
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCCACCCCTGTGGTACCAAGACAGCCTGGAAGTTGCAAGAGATCGTCGCCATGCCAGCAATGTGT
 CCTCCTTGGTGTGGCAAGGCCTCAGGGCGGCTGCTGGCCACTGGTGGGATGACTGCCGAGTCAACCT
 GTGGTCCATAAACAAGCCTAACTGCATCATGAGCCTGACAGGTACACAGTCCCCTGTGGAGAGTGTCCGT
 CTCAACACTCCTGAGGAGCTCATCGTAGCTGGTCCCAGTCGGGCTCCATCCGCTGTGGGACCTGGAAG
 CTGCTAAAATTCTTGAACACTCATGGCCACAAGCCAACATCTGCAGCCTGGATTTCCACCCCTATGG
 TGAATTTGTGGCCTCAGGCTCCCAGGACACAACATTAAGCTCTGGGACATCAGGAGGAAAGGCTGTGTC
 TTCGATATAGGGGGCACAGCCAGGCTGTGCGGTGTCTCCGGTTCAGCCCTGATGGGAAGTGGTGGCGT
 CGGCAGCAGATGACCACACAGTGAAGCTTTGGGATCTGACGGCTGCAAGATGATGTCGAGTCCCAGG
 TCATACAGGGCCTGCAATGTGGTGGAGTTTACCCCAATGAATATCTCCTAGCTTCTGGCAGCTCCGAC
 AGGACAATCCGCTTCTGGGACCTGGAGAAGTCCAGGTGGTGAAGTGCATTGAAGGGGAGCCCGGGCCCG
 TCAGGAGTGTCTCTTCAACCCCGACGGCTGTGCTTGTACAGCGGCTGCCAGGACTCGCTGCGTGTCTA
 CGGCTGGGAACCTGAGCGCTGCTTTGATGTGGTCTTGTCAACTGGGCAAGGTGGCTGACCTGGCCATC
 TGCAATGACCAGCTGATAGGTGTGGCTTCTCCAGAGTAATGTCTCCTCTTATGTGGTGGACCTGACGA
 GAGTACCAGGACGGAACTGTGACCCAGGACCTGTGCAAGGTAACAGCCTCTGACACAACAGACCCC
 TAACCTGGTGTCTCCCTCCGCCGATCTATGAGCGGCCAGCACGACATGCAGCAAGCCTCAGAGGGTA
 AAGCACAACCTCAGAGAGCGAGCGGCCAGCCCCAGCAGCAAGATGACAGGGACGAGCGAGAGTCCCAGG
 CGGAGATCCAGAACCGGAGGACTACAATGAGATTTTCCAGCCCAAGAACAGCATCAGTCGGACACCACC
 CCGGAGAAAGTGAAGCCTTCCAGCACCCCAAGATGATGCAGCCACAGTGAAGGAGGTCTCAAAACCC
 AGCCAGCCATGGATGTGCAAGTTCGCCGAGTTGCCGGTGCCTAATCTCGAGGTCCAGCAGCAGCCGTCAG
 TCATGACTTCCACTCCTGCACCAAGGGTGAACCTGACATCATCCCTGCCACACGGAATGAGCCATTGG
 CTTAAAGGCCTCGGACTTCTTGCCTCCGCTGAAGGTCCCCAGCAGGAGGCTGGTGGACGAGGATGCC
 ATGTCGCAGATACGAAAGGCCACGACACCATGTTTGTGGTGTCTCACCAGCCGCCACAAGAACTGGACA
 CTGTCCGAGCTGTATGGACTACAGGAGATCAAGACATCAGTGGACTCTGCAGTGGCCATCAATGACCT
 GTCTGTGGTAGTGGACCTCCTGAACATTGTCAATCAGAAAGCCTCCCTGTGGAAGCTGGACCTGTGCACC
 ACAGTGTGCCAGATCGAAACTGCTGCAGAGCAAGTATGAGAGCTATGTCCAGACCCGGGTGCACCT
 CCTGAAGCTGATCCTGCAGCGTTCTACCCCTCATCACTGACATTTTGGCAGCCCGCCTCTGTGGG
 TGTGGACATCAGCCGAGAGGAGAGGTTGCACAAGTGTGACTCTGCTTAAACAACCTCAAGAGCATCAGT
 GGCTCGTCAAGAGCAAGTCCGGTTTGTGAGTGGCCGATGGCAGTGCCTCCGTGAGCTGCACCTACTCA
 TGGCCAGTTTGGACTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** Sgfl-MluI
- ACCN:** NM_028805
- Insert Size:** 1977 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: [NM_028805.2](#), [NP_083081.2](#)

RefSeq Size: 3425 bp

RefSeq ORF: 1977 bp

Locus ID: 74187

UniProt ID: [Q8BG40](#)

Cytogenetics: 8 C5

Gene Summary: Participates in a complex which severs microtubules in an ATP-dependent manner. May act to target the enzymatic subunit of this complex to sites of action such as the centrosome. Microtubule severing may promote rapid reorganization of cellular microtubule arrays and the release of microtubules from the centrosome following nucleation. Microtubule release from the mitotic spindle poles may allow depolymerization of the microtubule end proximal to the spindle pole, leading to poleward microtubule flux and poleward motion of chromosome. The function in regulating microtubule dynamics at spindle poles seems to depend on the association of the katanin KATNA1:KATNB1 complex with ASPM which recruits it to microtubules. Reversely KATNA1:KATNB1 can enhance ASPM blocking activity on microtubule minus-end growth. Microtubule release within the cell body of neurons may be required for their transport into neuronal processes by microtubule-dependent motor proteins. This transport is required for axonal growth.[UniProtKB/Swiss-Prot Function]