

## Product datasheet for **MC202063**

### Spag5 (NM\_017407) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Spag5 (NM\_017407) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Spag5  
**Synonyms:** AI874642; D11Bhm180e; Deepest; MAP126; Mastrin; S17  
**Mammalian Cell Selection:** Neomycin  
**Vector:** PCMV6-Kan/Neo (PCMV6KN)  
**E. coli Selection:** Kanamycin (25 ug/mL)

**Fully Sequenced ORF:** >BC052672 sequence for NM\_017407  
AAGAGGTAATCCGGTAAAGTGATCGAGTTGAAAATGTGGAGGGTAAAACTGAATCTCGGTTTGTCCG  
CTTCGCCAAAAGGGGAAGCCAGCTATGAGTACTCCTCTCCGAGAGCTTAACTACAGCCCAGGCCCT  
CGCCGATTCAGGAAAGGTCCCTCTATGATCTCCGCGCTGACCCATACCTGTGCAGGCTGGAGCTGAAG  
GAAAGATGCAACAACCTATCTCCAGTGGATTTTATCAATACTGAGAACAACCTTCTTTTCAGAACAGTTCA  
GCCATCCTTCAACGCACATAGAAGCTTGCCAGCGTGAATCCGATCCAACCTCTGAAAGCAACTCTTTTT  
CCATACTTTGGAGGAAGCAATAGAAACAGTGGATGACTTTGTCTGGACCAAGAGATGATAGTATAGTG  
GAGTCCATGGTTCTTCTGCCCTTTTCATTAGGGCAGCAGCAAGACCTGATGCTCCAGGCTCACTTAGATA  
CCACAGCAGAGAGAACTAAAAGCTCTCTAAATGAATCTTTGGGGCTAGAAGATCTGGTGGGAAGGAGGT  
GGCACCTGTGTGAAGACAGCCTAACAGAAATGTTGCTATTAGGCCGAGCAACCTACATTTCCAGGAC  
CCTCCGTTAGGACCCAGTGACACTGAAGATGCACCTGTGGACTTAGTTCCTTCTGAAAATGTCCTGAATT  
TCTCTCTGGCTCGTCTTTCTCCTTCAGCTGTCTGGCCAGGATTTCTCTGTCGATCATGTGATCCAGG  
GGAGGAAACCGTAGAGAACAGAGTCTACAGGAAATGGAACGAGCTTCCCCACATTCCTGAGGAGGCC  
GAATTGGGAGACCAAGCACCTGTGCAAAATGCAGAAGCCGTCTCACCTTGTACCTGACATCAAGTCTAG  
TGGAGATGGGGCCCCGGGAAGCCCCAGGCCAACAGTAGAAGACGCCAGTAGGATTCCTGGCCTTAGATC  
AGAGACTTGGATGTCCCCATTGGCCTGGCTAGAAAAGGGTGTGAATACATCGGTCATGCTACAAAACCTC  
CGCCAGAGCTTATCCTTTTCTTGTGCTTCAGGATGCTGCCGTTGGCAACACACCCCTCGCCACGTGTT  
CTGTGGGCACTTCTTTACTCCTCCAGCACCCTGGAGGTAGGCACCAAGGACAGTACTTCAGAGACAGA  
GCGCCTCCTTTGGGCTGCCGCTCCAGATCTGGCTACCTTGTCCCACACGACTTGAAGAGAACCTG  
TTGAACTCTCTTGTCTTGGTGAAGTCTTTCCACCAGCTACAAGCCTGGAAGAGCCAGTTGACTGTCC  
CTCACCGGAAGCTCGAGACAGTGTACACAGACTGACAGCTCTCCTTGTGGGTCACCTAAGACACCTAA  
ACATCTTCAGGACAGCAAGGAGATTAGACAGGCTCTACTGCAAGCCAGGAATGTCATGCAATCATGGGGT  
CTAGTCTCTGGAGACCTGTTGCTTGTCTCACCTGTCCCTAACACAGTGAAGAGGACAGGAGTACAG  
TGAGTCAGGAGTCTCAGCGGTCAAAAACCTGGTTTCTCCTGTTCTCGTGTGCTGAAGAAATGAAGGC  
AAAGCTGCAGAGCCTCAAAACAGAATGTGAGGAGGCAAGGCACAGCAAGGAAATGGCCCTTAAAGGCAAG  
GCTGCGGCAGAGGCACTGAGGCTTTCCGTGCACATGCCAGCCAGCGCATCAGCCAACCTGGAACAGG  
GTCTCACATCTATGCAGGAATTCAGAGGCTTCTACAGGAGGCACAGACCAACTGATAGGGCTTCACAC



[View online »](#)

```

AGAACAAAAGGAGCTGGCTCAGCAGACAGTGAAGTCTGAGTTCTGCCTTGCAGCAGGACTGGACATCAGTC
CAATTGAATTATGGAATATGGGCAGCTTTGCTGAGTTGGTCTCGAGAACTCACCAAGAACTCACAGCCA
AGAGCCGGCAGGCCCTTCAGGAACGTGATGCTGCAATTGAAGAAAAGAAGCAGGTTGTGAAGGAAGTGA
ACAAGTCTCTGCCATTTAGAGGACTGTAAAGGTCAAATCGAACAACTGAAGTTGGAAAATAGTCGCCTT
ACTGCAGATCTCTCGGCTCAGCTGCAGATTCTGACTAGCACAGAGAGTCAAGTAAAGGAAGTACGGAGTC
AGCATTCCCGCTGTGTCCAGGACCTGGCCGTGAAGGATGAATTGCTGTGTCAACTTACCCAGAGCAACAA
GGAGCAGGCTACTCAATGGCAAAAAGGAAGAAATGGAAGTCAAACACATACAAGCAGAACTGCTCAGCAG
CAGGCTGTGTTGGCTAAGGAGGTCCAGGACCTGAGGGAGACTGTGGAGTTTATAGATGAAGAAAAGTCAAG
TTGCTCACCGGGAGCTGGCCAGATTGAGAGTCAAGTGAAGTCAAGCTAGAGTTACTGCCGGAGCGCAG
CCTGCAGTGTGAGACCCTCAGGGACACTGTGGACAGCCTGAGGGCTGAGCTGGCCAGCACTGAAGCAAAG
CATGAGAAAACAGGCCCTAGAGAAGACACACCAGCATTCTCAAGAGCTGCGGCTACTGGCTGAGCAGCTGC
AGAGTCTCACCTCTTCTTACAGGCAAACTCAAGGAGAACAAGGCTGAATCAGAGATCATTCTGCCAG
CACAGGCTCTGTCCAGCCAGGAACACCCTCTGTCCAATGACAGCAGCATCTCAGAACAGACCCCGACA
GCAGCAGTAGATGAAGTGCCAGAACCAGCTCCTGTGCCATTGCTTGAAGTGTTAAGAGTGTTCACCC
GAGTAGCCTCAATGGCTTCTTTTTCAGCCTACAGAGACCCAGACTTGGAGAAGAGCTGGCAGAAATGAG
TACTGTGTACAAGAGCTTAAGAGCCTGTGTTCCCTGCTGCAAGAGTCTAAAGAGGAGGCCACTGGGGTC
CTGCAGAGGGAAATCTGTGAACTACACTCGAGACTACAGGCCAAGAAGAGAGCATCAGGAAGCCCTGA
AGGCAAAGGAAGCAGACATGGAGAAGCTGAACCAGGCCTTGTGCTTGGCTCCGCAAGAATGAGAAGGAGCT
CCTGGAAGTGATACAGAAGCAGAACGAGAAGATCCTGGGGCAAATAGACAAGAGCGGCCAGCTCATAAAC
CTCAGAGAGGAGGTGACCCAGCTCACACAGTCACTTCGGCGTGCAGAGACAGAGACTAAAGTGCTCCAGG
AAGCCCTGGAAGGCCAGCTAGATCCCAGCTGCCAGCTGATGGCTACTAACTGGATCCAGGAAAAAGTGT
TCTCTCACAGGAGGTGAGCAAGCTGAGGGTTATGTTCTGGAGATGAAAAGTGAAGGAACAGCTGATG
GACAAGTATCTGAGCCATAGGCACATCCTGGAGGAGAACCCTTCGGCGCTGACACAGAGTTAAAGAAAC
TGGATGACACAATTCAGCATGTCTATGAGACTGTGTTGCTATCCAGAGACTATGAAGAGTTGCAAGGA
GTTACAAGGATTGCTAGAATTTCTGAGCTAAGAACTGAAAATATTGGAACGAGTGGTGTGCACCTGTA
GTTCCAGCTGCTCCAGACGCCAAAGTTGGAGTGTGCCAAATCCCAGGAATTTGGGAACCTAACACAGAC
AACACAGCAAAAACCTGAAAAATGAATCCACTCCACTCCAGTTTCTTTCAGGGCTCTTTATCCCAACC
CTTATCCCAATAATAAGACCAATTGGCATAGAGCCGACCATGTTTTATGTTATTTAAATAAAGTGTATTT
AATGTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAG
    
```

- Restriction Sites:** RsrII-NotI
- ACCN:** NM\_017407
- Insert Size:** 3498 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:** [BC052672](#), [AAH52672](#)

RefSeq Size: 3818 bp

RefSeq ORF: 3498 bp

Locus ID: 54141

UniProt ID: [Q7TME2](#)

Cytogenetics: 11 46.74 cM

**Gene Summary:** Essential component of the mitotic spindle required for normal chromosome segregation and progression into anaphase. Required for chromosome alignment, normal timing of sister chromatid segregation, and maintenance of spindle pole architecture. In complex with SKAP, promotes stable microtubule-kinetochore attachments. May contribute to the regulation of separase activity. May regulate AURKA localization to mitotic spindle, but not to centrosomes and CCNB1 localization to both mitotic spindle and centrosomes. Involved in centriole duplication. Required for CDK5RAP22, CEP152, WDR62 and CEP63 centrosomal localization and promotes the centrosomal localization of CDK2. In non-mitotic cells, upon stress induction, inhibits mammalian target of rapamycin complex 1 (mTORC1) association and recruits the mTORC1 component RPTOR to stress granules (SGs), thereby preventing mTORC1 hyperactivation-induced apoptosis. May enhance GSK3B-mediated phosphorylation of other substrates, such as MAPT/TAU (By similarity).[UniProtKB/Swiss-Prot Function]