

## Product datasheet for **MG211734**

### Spag5 (NM\_017407) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Spag5 (NM\_017407) Mouse Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Spag5  
**Synonyms:** AI874642; D11Bhm180e; Deepest; MAP126; Mastrin; S17  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MG211734 representing NM\_017407  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTGGAGGGTAAAACTGAATCTCGGTTTGTGCGCTTCGCCCAAAGGGGAAGCCAGCTATGAGTAC  
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CGCGCTGACCCCATACCTGTGCAGGCTGGAGCTGAAGGAAAGATGCAACAACCTCATCTCCAGTGGATTT  
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GTGAATCCGATCCAACCTCTGAAAGCAACTCTCTTTCCATACTTGGAGGAAGCAATAGAAACAGTGG  
TGACTTTGTCGTGGACCAAGAGATGATAGTATAGTGGAGTCCATGGTCTTCTGCCCCTTTTCATTAGGG  
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CCTGTGGACTTAGTTCCTTCTGAAAATGTCCTGAATTTCTCTCTGGCTCGTCTTCTCCTCAGCTGTCC  
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GATGCTGCCGTTGGCAACACACCCTCGCCACGTGTTCTGTGGGCACTTCTTTACTCCTCCAGCACCAC  
TGGAGGTAGGCACCAAGGACAGTACTTCAGAGACAGAGCGCTCCTCTTGGGCTGCCGCTCCAGATCT  
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CTGTCCCTAACACACGTGCAAGAAGGCAGAGTGACAGTGAGTCAGGAGTCTCAGCGGTCAAAAACCTGG  
TTTCCTCTGTTCTCGTGTGCTGAAGAAATTGAAGGCAAAGCTGCAGAGCCTCAAAACAGAATGTGAGGA  
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ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

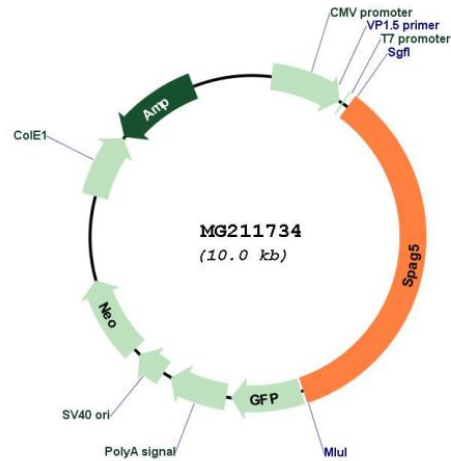
Protein Sequence: >MG211734 representing NM\_017407  
 Red=Cloning site Green=Tags(s)

MWRVKTLNLGLSPSPQKGPAMSTPLRELKLQPEALADSGKGPSMISALTPYLCRLELKERCNNSPVDF  
 INTENNFLSEQF SHPSTHIEACQRES DTPESNSL FHTLEEAIETVDDFVVDPRDD SIVESMVL L PFSLG  
 QQQDLMLQAHLDTTAERTKSSLNESL GLEDLVGKEVAPCVEDSL TEIVAIRPEQPTFQDPPLGPSDTEDA  
 PVDLVPSENVLNFSLARLS P SAVLAQDF SVDHVDPGEETVENRVLQEMETSFP TFP EEAELGDQAPAANA  
 EAVSPLYLTSSLVEMGP REAPGPTVEDASRIPGLESETWMSPLAWLEKGVNTSVMLQNL RQSL SFSSVLQ  
 DAAVGNTPLATCSVGTSFTPPAPLEVGT KDSTSETERLLL GCRPPDLATLSR HDLEENL LNSLV LLEVL S  
 HQLQAWKSQLTVP HREARDSSTQT DSSPCGVTKTPKHLQDSKEIRQALLQARNVMQSWGLVSGDLLSL LH  
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 AHASQRISQLEQLTSMQEFRGLLQEAQTQL IGLHTEQKELAAQQT VSLSSALQQDWT SVQLNYGIWAALL  
 SWSRELTKKL TAKSRQALQERDAAIEKKQVVKEVEQVSAHLEDCKGQIEQLKLENSRLTADLSAQLQIL  
 TSTESQLKEVRSQHSRCVQDLAVKDELLCQLTQSNKEQATQWQKEEMELKH IQAELLQQQAVLAKEVQDL  
 RETVEFIDEESQVAHRELQ IESQLKVTLELLRERSLQCETLRDTVDSLRAELASTEAKHEKQALEKTHQ  
 HSQELRLLAEQLQSLTLFLQAKLKENKA ESEIILPSTGSAPAQEHPLSNDSSISEQTPTAAVDEVP EPAP  
 VPLLG SVKSAFTRVASMASFQPTETPDLEKSLAEMSTVLQELKSLCSLLQESKEEATGVLQREICELHSR  
 LQAQEEHQEALKAKEADMEKLNQALCLLRKNEKELLEVIQKQNEKILGQIDKSGQLINLREEVTQLTQS  
 LRAAETETKVLQEAL EGQLDPSCQLMATNWIQEKVFLSQEVSKLRVMFLEMKTEKEQLMDKYL SHRHILE  
 ENLRRSDTELKLLDDTIQH VYETLLSIPETMK SCKELQGLLEFLS

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI  
 Cloning Scheme:



**Plasmid Map:**


**ACCN:** NM\_017407

**ORF Size:** 3495 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\\_017407.3](#)

**RefSeq Size:** 3822 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]