

Product datasheet for **MG213524**

Spata18 (NM_178387) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Spata18 (NM_178387) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Spata18
Synonyms:	1700067I02Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG213524 representing NM_178387
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCAGAAAGCCTGAAGAAGCTGGCCAAAAGCGAATCTTTACAAGCACTGCAGGATAAAGTCACCTACT
 GGGTGAACGACTACAACCTCAAACCTCTGTGATCAAAATCTAAATTATTGCATCGAACTCATCGAACAAGT
 TGCTAAAGTGCAGGCACAGCTCTTTGGGATCCTCACAGTGACAGCCCAAGAAGGGGAAAT AATGAAGGC
 GTGGAGACAATCAAGTGTGCGCTTTTGCCTTGTGTCAGACTTCCTTCAGTTCTGTAAACATGGGGAAAA
 CGGCTGAGTCTGAGATGTGTGCTACACAGGATTTCCAACCTAGAAGTAAAAACAGAGACAATTCTCCGGA
 TCAGGACCAACATCAATCAGACAATGAATCGTTCTCAGAGACTCAACCAACCCAGGTTCAAGACGATCTG
 GCTGAAAGTGGAAAGAGTCTTGAAGGAGCCAAGAACGGATCAACCATATCCCTCTGGCTGCAGAGGAGG
 AGATAAACAGCTAAAAAGCAGCTCAAATCTCTCAAGCTCAGGAGGACGCCCGCCACAAAACCTCGGA
 GAACCGTCGCTCTGAGGCCCTTAAAAAGTGATCATCGATCAACCAACGAACCCAGGACCAACGGCCCAA
 GACGTGGTGTCCAACTATGAGAAACATCTGCAAAATCTGAAGGAAGAGATAGCTGTCTGTCTGCTGAGA
 AAAGTGGTCTCCAGGGGAGGTCTGCCAGGAGCCCATCTCCTAGCACAGGCACCCGCAGCCACCGTCGCGG
 CCGCAGCCGTAGCCACAGCCGACGCCGACGCCACGCCGGTCCAATAGCCCTGCACCACAGTGGCCAAG
 ATCAGAAGCCCGTCCCAAAACCGTGCCAAAATGTCCAGCGTGGCTCGCAAAGCTGCTCTCCTGTCCCGAT
 TCAGCGACGCCTATCCAGGCCCGTCTGGATGCTCAGTGCTTGTGAGGCGTTGCATCGACAGGGCAGA
 GACGGTGCAGCGGATCATTTACATCGCCACAGTGGAGGCATTTTCATGTAGCTAAAATGGCATTGAGGCAT
 TTCAAGATCCGGGTGAGGAAGATGCTGACGCCATCGAACGTGGGATCTAATACTGACTTTGAGACCCGAG
 TCTCCGAATACATTGTTTGCACCTGGACCTGTGACTCGCAAAGCAGTGTCAATGATGTGATCCGTGC
 CATGAACGTCAACCCCAAGATCTATCCCTCCTGAAGTTGACTTCTGCCTCCTCACTGACTTCATCCAG
 GAGATTTGCTGCATTGCTTTTGAATGCAGTCTTAGAGCCACCCTCGATATCGCATTCCGGGCAGATG
 GGGAAATCTTTAACGATTGCAAGTACCGCCGACGCTATGACTCGGACTTTACTGCTCCCTTGGTCTTTTA
 TCACGTGTGGCCTGCTCTCATGGAGAATGACTGTGTCATTATGAAGGGAGAAGCTGTACCAAAAGAGGG
 GCTTTTTGGAGTTCGTCGACAGTAATGCGGTGCCGTAGCAGGAGCTTAAGCCCCATTTGTCTCGTA
 ATCATTGGAATAAGCACGGTATCTCGAAGTCAAGCCCTTCTCAATAAGATGTACATTCGCAAGGTA
 C

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG213524 representing NM_178387
 Red=Cloning site Green=Tags(s)

MAESLKKLAKSESLQALQDKVTYVWVNDYNSNSCDQNLNYCIELIEQVAKVQAQLFGILTVAQEGGNNEG
 VETIKRLLPLLQTSFSSVNMGKTAEMCATQDFQLRSKNRDNQDQHQSDNESFSETQPTQVQDDL
 AESGKSLGAKNGSTISLLAAEEEEINQLKKQLKSLQAQEDARHKTSENRRSEALKSDHRSTKRTQDQRPQ
 DVVSNYEKHLQNLKEEIAVLSAEKSGLQGRSARSPSPSTGTRSHRRGRSRSHRSRSHRSNSPCTTVAK
 IRSPSPNRAKMSSVARKAALLSRFSDAYSQARLDAQLLRRCIDRAETVQRRIIYIATVEAFHVAKMAFRH
 FKIRVRKMLTPSNVGSNTDFETAVSEYIVCHLDLYDSQSSVNDVIRAMNVNPKISFPPEVDFCLLTDFIQ
 EICCIAMQSLPEPLDIAFGADGEIFNDCKYRRSYDSDFAPLVFYHVWPALMENDCVIMKGEAVTKRG
 AFWSSVRPVMRCRSRSLSPICPRNHFGISTVSRSRSPSPIRCTFARY

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_178387

ORF Size: 1611 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_178387.3](#), [NP_848474.2](#)

RefSeq Size: 1949 bp

RefSeq ORF: 1614 bp

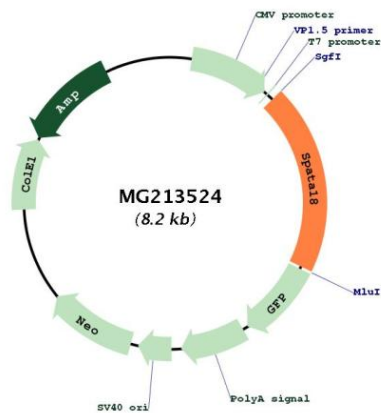
Locus ID: 73472

UniProt ID: [Q0P557](#)

Cytogenetics: 5 C3.3

Gene Summary: Key regulator of mitochondrial quality that mediates the repairing or degradation of unhealthy mitochondria in response to mitochondrial damage. Mediator of mitochondrial protein catabolic process (also named MALM) by mediating the degradation of damaged proteins inside mitochondria by promoting the accumulation in the mitochondrial matrix of hydrolases that are characteristic of the lysosomal lumen. Also involved in mitochondrion degradation of damaged mitochondria by promoting the formation of vacuole-like structures (named MIV), which engulf and degrade unhealthy mitochondria by accumulating lysosomes. May have a role in spermatogenesis, especially in cell differentiation from late elongate spermatids to mature spermatozoa (By similarity). The physical interaction of SPATA18/MIEAP, BNIP3 and BNIP3L/NIX at the mitochondrial outer membrane regulates the opening of a pore in the mitochondrial double membrane in order to mediate the translocation of lysosomal proteins from the cytoplasm to the mitochondrial matrix (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG213524