

## Product datasheet for **MR213524**

### Spata18 (NM\_178387) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Spata18 (NM_178387) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Spata18
Synonyms:	1700067I02Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>MR213524 representing NM\_178387  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCAGAAAGCCTGAAGAAGCTGGCCAAAAGCGAATCTTTACAAGCACTGCAGGATAAAGTCACCTACT  
 GGGTGAACGACTACAACCTCAAACCTCTGTGATCAAAATCTAAATTATTGCATCGAACTCATCGAACAAAGT  
 TGCTAAAGTGCAGGCACAGCTCTTTGGGATCCTCACAGTGACAGCCCAAGAAGGGGAAAT AATGAAGGC  
 GTGGAGACAATCAAGTGTGCGCTTTTGCCTTGTGTCAGACTTCCTTCAGTTCTGTAAACATGGGAAAA  
 CGGCTGAGTCTGAGATGTGTGCTACACAGGATTTCCAACCTAGAAGTAAAAACAGAGACAATTCTCCGGA  
 TCAGGACCAACATCAATCAGACAATGAATCGTTCTCAGAGACTCAACCAACCCAGGTTCAAGACGATCTG  
 GCTGAAAGTGGAAAGAGTCTTGAAGGAGCCAAGAACGGATCAACCATATCCCTCTGGCTGCAGAGGAGG  
 AGATAAACAGCTAAAAAGCAGCTCAAATCTCTCAAGCTCAGGAGGACGCCGCCACAAAACCTCGGA  
 GAACCGTCGCTCTGAGGCCCTAAAAAGTGATCATCGATCAACCAACGAACCCAGGACCAACGGCCCAA  
 GACGTGGTGTCCAATATGAGAAACATCTGCAAAATCTGAAGGAAGAGATAGCTGTCTGTCTGTGAGA  
 AAAGTGGTCTCCAGGGGAGGTCTGCCAGGAGCCCATCTCCTAGCACAGGCACCCGCAGCCACCGTCGCGG  
 CCGCAGCCGTAGCCACAGCCGACGCCGACGCCACAGCCGGTCCAATAGCCCTGCACCACAGTGGCCAAG  
 ATCAGAAGCCCGTCCCCAAACCGTGCCAAAATGTCCAGCGTGGCTCGCAAAGCTGCTCTCTGTCCCGAT  
 TCAGCGACGCCTATCCCAGGCCGTCTGGATGCTCAGTGCTTGTGAGGCGTTGCATCGACAGGGCAGA  
 GACGGTGCAGCGGATCATTTACATCGCCACAGTGGAGGCATTTTCATGTAGCTAAAATGGCATTGAGGCAT  
 TTCAAGATCCGGGTGAGGAAGATGCTGACGCCATCGAACGTGGGATCTAATACTGACTTTGAGACCCGAG  
 TCTCCGAATACATTGTTTGCACCTGGACCTGTGACTCGCAAAGCAGTGTCAATGATGTGATCCGTGC  
 CATGAACGTCAACCCCAAGATCTCATTCCCTCCTGAAGTTGACTTCTGCCTCCTCACTGACTTCATCCAG  
 GAGATTTGCTGCATTGCTTTTGAATGCAGTCTTAGAGCCACCCTCGATATCGCATTCCGGGCAGATG  
 GGGAAATCTTTAACGATTGCAAGTACCGCCGACGCTATGACTCGGACTTTACTGCTCCCTTGGTCTTTTA  
 TCACGTGTGGCCTGCTCTCATGGAGAATGACTGTGTCATTATGAAGGGAGAAGCTGTACCAAAAGAGGG  
 GCTTTTTGGAGTTCGTCGACAGTAATGCGGTGCCGTAGCAGGAGCTTAAGCCCCATTTGCTCTCGTA  
 ATCATTGGAATAAGCACGGTATCTCGAAGTCAAGCCCTTCTCAATAAGATGTACATTCCGAAGGTA  
 C

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR213524 representing NM\_178387  
 Red=Cloning site Green=Tags(s)

MAESLKKLAKSESLQALQDKVTYVNDYNSNSCDQNLNYCIELIEQVAKVQAQLFGILTVTVAQEGGNNEG  
 VETIKRLLPLLQTSFSSVNMGKTAEMCATQDFQLRSKNRDNQDQHQSDNESFSETQPTQVQDDL  
 AESGKSLGAKNGSTISLLAAEEEEINLKKQLKSLQAQEDARHKTSENRRSEALKSDHRSTKRTQDQRPQ  
 DVVSNEYKHLQNLKEEIAVLSAEKSGLQGRSARSPSPSTGTRSHRRGRSRSHSRSRSHSRNSPCTTVAK  
 IRSPSPNRAKSSVARKAALLSRFSDAYSQARLDAQCLLRRCIDRAETVQRRIIYIATVEAFHVAKMAFRH  
 FKIRVRKMLTPSNVGSNTDFETAVSEYIVCHLDLYDSQSSVNDVIRAMNVNPKISFPPEVDFCLLTDIFIQ  
 EICCIAFAMQSLPEPLDIAFGADGEIFNDCKYRRSYDSDF TAPL VFYHVWPALMENDCVIMKGEAVTKRG  
 AFWSSVRPVMRCRSRSLSPICRNHFGISTVSRSRSPSPIRCTFARY

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mm9079\\_b03.zip](https://cdn.origene.com/chromatograms/mm9079_b03.zip)

**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

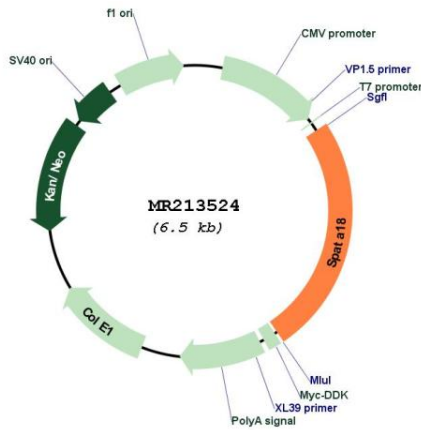
**UniProt ID:** [Q0P557](#)

**Cytogenetics:** 5 C3.3

**MW:** 60.4 kDa

**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 MR213524