

## Product datasheet for **RG207971**

### SPART (NM\_015087) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SPART (NM_015087) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SPART
Synonyms:	SPG20; TAHCCP1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG207971 representing NM\_015087  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGAGCAAGAGCCACAAAATGGAGAACCTGCTGAAATTAAGATCATCAGAGAAGCATATAAGAAGGCCT  
 TTTTATTTGTTAACAAAGGTCTGAATACAGATGAATTAGGTCAGAAGGAAGAAGCAAAGAACTACTATAA  
 GCAAGGAATAGGACACCTGCTCAGAGGGATCAGCATTTTCATCAAAAGAGTCTGAACACACAGGACTGGG  
 TGGGAATCTGCTAGACAGATGCAACAGAAAATGAAAGAACTCTACAGAAATGTACGCACCAGGCTGGAAA  
 TTCTAGAGAAGGGTCTTGCCACTTCTCTGCAGAAATGATCTTCAGGAGGTGCCAAGTTATATCCAGAATT  
 TCCACCTAAAGACATGTGTGAAAAATTACCAGAGCCTCAGTCTTTTAGTTCAGCTCCTCAGCATGCTGAA  
 GTAATGGAAACACCTCAACTCCAAGTGCAGGGCAGTTGCTGCACCTGCTTCTGTCTTTACCATCAC  
 AAAGTTGTCCAGCAGAAGCTCCTCCTGCTTATACTCCTCAAGCTGCTGAAGGTCCTACTACTGTATCCTA  
 TGGAACAGATTCTGGGGAGTTTTTCATCAGTTGGAGAGGAGTTTTATAGGAATCATTCTCAGCCACCGCT  
 CTTGAGACCTTAGGGCTGGATGCAGATGAATTGATTTTGATACCAAATGGAGTACAGATTTTTTTTGTA  
 ATCCTGCAGGGGAGGTTAGTGCACCTTCGTATCCTGGGTACCTTCGAATTGTGAGTTTTTTGGATAATTC  
 TCTCGATACGGTCTAAACCGTCTCCCGGTTTCTTCAGGTTTGTGACTGGTTATATCCTCTAGTTCCT  
 GATAGATCTCCGGTCTGAAATGTACTGCGGGAGCCTACATGTTTCTGATACAATGCTACAAGCAGCAG  
 GATGCTTTGTGGGGTCTGCTCCTCTGAGTTACCAGAGGATGATAGAGAGCTCTTTGAGGATCTGTT  
 AAGGCAATGTCTGACCTTCGGCTCCAGGCAACTGGAACAGAGCAGAAGAAGAAAATGAATCCAAATC  
 CCTGGAAGAAGTAGACCCTCCTCTGACCAACTAAAAGAAGCCTCTGGCACTGATGTGAAACAGTTGGACC  
 AAGGCAATAAGGATGTACGTCATAAAGGAAAAGTGGAAAAAGGGCTAAAGATACTTCAAGTGAAGAAGT  
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 GAAAAAGTGGCTCACAACATTTTGTGAGGTGCTTCTGGGTGAGTTGGGGTTTAGTCAAAGGTGCTGAGA  
 TTAAGTGAAGGCAATCCAGAAAGGTGCTTCTAAACTCCGAGAGCGGATTCAACCAGAAGAAAAACCCGT  
 GGAAGTTAGTCCAGCTGTACCAAGGGACTTTATATAGCGAAGCAAGCTACAGGAGGAGCAGAAAAGTC  
 AGTCAGTTCCTGGTTGATGGAGTTTGCCTGTAGCAAATGCGTTGAAAAAGAACTAGCTCCACATGTCA  
 AGAAGCATGGAAGCAAATTTGTTCCAGAATCTCTAAAAAAGACAAGATGGGAAATCTCCTCTGGATGG  
 TGCTATGGTTGTAGCAGCGAGTAGTGTCAAGGATTTTCAACTGTCTGGCAAGGATTGGAATGTGCAGCT  
 AAATGCATCGTTAACAATGTTTCAGCAGAACTGTACAACTGTCAGATACAAATACGGATATAATGCAG  
 GAGAAGCTACCCACCATGCGGTGGATTCTGCGGTCAATGTTGGCGTAACTGCCTACAATATAACAACAT  
 TGGTATCAAAGCAATGGTGAAGAAAAGTCAACACAAAACAGGACACACTCTCCTTGAGGACTATCAGATA  
 GTTGATAATTCTCAGAGGGAAAATCAAGAAGGAGCAGCAAATGTCAACGTGAGAGGGGAGAAGGATGAGC  
 AGACGAAGGAAGTAAAGGAGGCAAGAAGAAAGATAAA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG207971 representing NM\_015087  
Red=Cloning site Green=Tags(s)

```
MEQEPQNGEPAEIKIIREAYKKAFLFVNKGLNTDELGQKEEAKNYYKQGIGHLLRGISISSKESEHTGTG
WESARQMQQMKETLQNVTRLEILEKGLATSLQNDLQEVPKLYPEFPPKDMCEKLEPQSFSSAPQHAE
VNGNTSTPSAGAVAAPASLSLPSQSCPAEAPPAYTPQAAEGHYTVSYGTDSGEFSSVGEEFYRNHSQPPP
LETLGLDADELILIPNGVQIFFVNPAGEVSAPSYGYLRIVRFLDNSLDTVLNRPPGFLQVCDWLYPLVP
DRSPVLKCTAGAYMFPDMLQAAGCFVGVVLSSELPEDDRELFEDLLRQMSDLRLQANWNRAEEENEQI
PGRTRPSSDQLKEASGTDVKQLDQGNKDVRHKGRKRAKDTSSSEEVNLSHIVPCEPVPEEKPKELHEWS
EKVAHNILSGASWVSWGLVKGAIEITGKAIQKGASKLRERIQPEEKPEVSPAVTKGLYIAKQATGGAAKV
SQFLVDGVTVANCVGKELAPHVKKHGSKLVPELKKDKDKGKSPLDGAMVVAASSVQGFSTVWQGLECAA
KCIVNNVSAETVQTVRYKYGYNAGEATHHAVDSAVNVGVTAYNINNIGIKAMVKKATQTGHTLLEDYQI
VDNSQRENQEGAANVNRGEKDEQTKVEKAKKKDK
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_015087

**ORF Size:** 1998 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_015087.3](#), [NP\\_055902.1](#)

**RefSeq Size:** 4838 bp

**RefSeq ORF:** 2001 bp

**Locus ID:** 23111

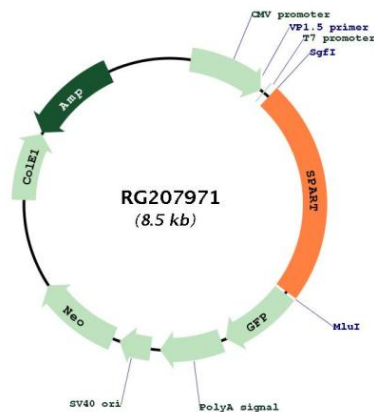
**UniProt ID:** [Q8N0X7](#)

**Cytogenetics:** 13q13.3

**Domains:** MIT

**Gene Summary:** This gene encodes a protein containing a MIT (Microtubule Interacting and Trafficking molecule) domain, and is implicated in regulating endosomal trafficking and mitochondria function. The protein localizes to mitochondria and partially co-localizes with microtubules. Stimulation with epidermal growth factor (EGF) results in protein translocation to the plasma membrane, and the protein functions in the degradation and intracellular trafficking of EGF receptor. Multiple alternatively spliced variants, encoding the same protein, have been identified. Mutations associated with this gene cause autosomal recessive spastic paraplegia 20 (Troyer syndrome). [provided by RefSeq, Nov 2008]

### Product images:



Circular map for RG207971