

Product datasheet for **RC227162**

SPART (NM_001142295) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SPART (NM_001142295) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SPART
Synonyms:	SPG20; TAHCCP1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC227162 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGCAAGAGCCACAAAATGGAGAACCTGCTGAAATTAAGATCATCAGAGAAGCATATAAGAAGGCCT
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 GCAAGGAATAGGACACCTGCTCAGAGGGATCAGCATTTTCATCAAAAGAGTCTGAACACACAGGACTGCG
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 TTCTAGAGAAGGGTCTTGCCACTTCTCTGCAGAAATGATCTTCAGGAGGTGCCAAGTTATATCCAGAATT
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 GTTGATAATTCTCAGAGGGAAAATCAAGAAGGAGCAGCAAATGTCAACGTGAGAGGGGAGAAGGATGAGC
 AGACGAAGGAAGTAAAGGAGGCAAGAAGAAAGATAAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC227162 protein sequence
Red=Cloning site Green=Tags(s)

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MEQEPQNGEPAEIKIIREAYKKAFLFVNKGLNTDELGQKEEAKNYYKQGIGHLLRGISISSKESEHTGTG
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VNGNTSTPSAGAVAAPASLSLPSQSCPAEAPPAYTPQAAEGHYTVSYGTDSEFSSVGEFYNHNSQPPP
LETLGLDADELILIPNGVQIFFVNPAGEVSAPSYPGYLRIVRFLDNLDTVLNRPPGFLQVCDWLYPLVP
DRSPVLKCTAGAYMFPDMLQAAGCFVGVVLSSELPEDDRELFEDLLRQMSDLRLQANWNRAEEENEQI
PGRTRPSSDQLKEASGTDVKQLDQGNKDVHRHKGKRGKRAKDTSSSEEVNLSHIVPCEPVPEEKPKELHEWS
EKVAHNILSGASWVSWGLVKGAEITGKAIQKGASKLRERIQPEEKPEVSPAVTKGLYIAKQATGGA
KV SQFLVDGCTVANCVKELAPHVKKHSGSKLVPESLKKDKDGKSPLDGAMVVAASSVQGFSTVWQGLECA
KCIVNNVSAETVQTVRYKYGYNAGEATHHAVDSAVNVGVTAYNINNIIGIKAMVKKATQTGHTLLEDYQI
VDNSQRENQEGAANVNRGEKDEQTKVEKAKKKDK
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TRTRPLEQKLISEEDLANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6126_e12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001142295

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.

RefSeq: [NM_001142295.1](#), [NP_001135767.1](#)

RefSeq Size: 4962 bp

RefSeq ORF: 2001 bp

Locus ID: 23111

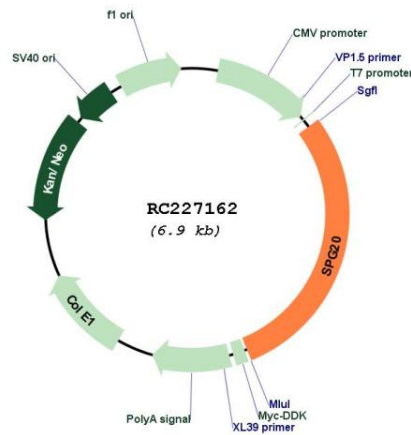
UniProt ID: [Q8N0X7](#)

Cytogenetics: 13q13.3

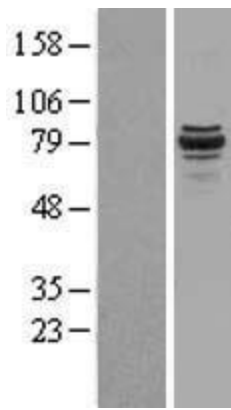
MW: 72.9 kDa

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]

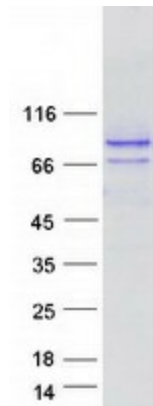
Product images:



Circular map for RC227162



Western blot validation of overexpression lysate (Cat# [LY428019]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC227169] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SPART protein (Cat# [TP327162]). The protein was produced from HEK293T cells transfected with SPART cDNA clone (Cat# RC227162) using MegaTran 2.0 (Cat# [TT210002]).