

Product datasheet for **RC206340**

SPG7 (NM_003119) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SPG7 (NM_003119) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SPG7
Synonyms:	CAR; CMAR; PGN; SPG5C
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>RC206340 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCCGTGCTGCTGCTGCTGCTCCGTGCCCTCCGCCGGGTCCAGGCCCGGGTCTCGGCCGCTGTGGG
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 GCCTCCGGGGGACCTCGCCGAGGCTGGAGGCCGAGCTCTGCAGAGCTTACAATTGAGACTGCTAACCCT
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 CCAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
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Protein Sequence: >RC206340 protein sequence
Red=Cloning site Green=Tags(s)

MAVLLLLLRALRRGPGPRPLWGPAPWSPGFARPGRGRPYMASRPPGDLAEAGGRALQSLQLRLLTP
TFEGINGLLKQHLVQNPVRLWQLLGGTFYFNTSRLKQKNKEKDKSKGKAPEEEDERRRRERDDQMYRE
RLRTLIVIAVMSLLNALSTSGGSIWVDFVHEMLAKGEVQRVQVVPESDVVEVYLHPGAVVFGPRRAL
MYRMQVANIDKFEEKLRAAEDELNIEAKDRIPVSYKRTGFFGNALYSVGMTAVGLAILWYVFRLAGMTGR
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PGCGKTLAKAVATEAQVPFLAMAGAEFVEVIGGLGAARVRSLFKEARARAPCIVYIDEIDAVGKKRSTT
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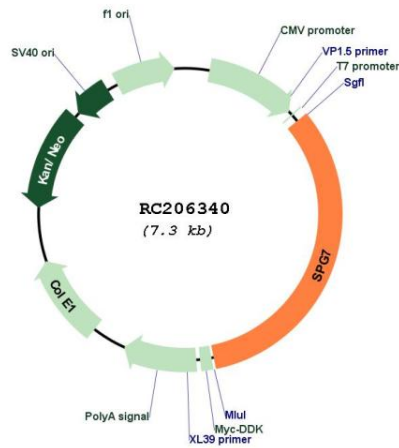
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Chromatograms: https://cdn.origene.com/chromatograms/mk6004_g03.zip

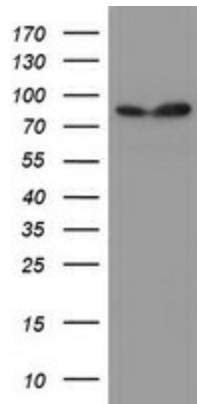
Restriction Sites: Sgfl-Mlul

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:	<ol style="list-style-type: none">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:	<u>NM_003119.4</u>
RefSeq Size:	3102 bp
RefSeq ORF:	2388 bp
Locus ID:	6687
UniProt ID:	<u>Q9UQ90</u>
Cytogenetics:	16q24.3
Domains:	Peptidase_M41, AAA, AAA
Protein Families:	Protease, Transmembrane
MW:	88.2 kDa
Gene Summary:	This gene encodes a mitochondrial metalloprotease protein that is a member of the AAA family. Members of this protein family share an ATPase domain and have roles in diverse cellular processes including membrane trafficking, intracellular motility, organelle biogenesis, protein folding, and proteolysis. Mutations in this gene cause autosomal recessive spastic paraplegia 7. Two transcript variants encoding distinct isoforms have been identified. [provided by RefSeq, Mar 2014]

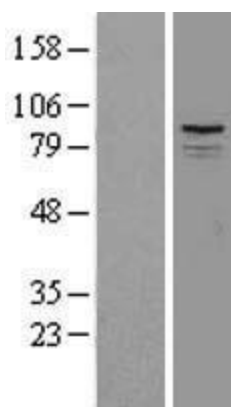
Product images:



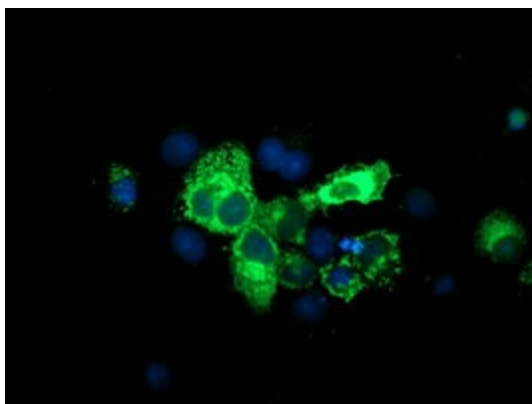
Circular map for RC206340



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY SPG7 (Cat# RC206340, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-SPG7 (Cat# [TA504424]). Positive lysates [LY401085] (100ug) and [LC401085] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401085]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206340 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Anti-SPG7 mouse monoclonal antibody ([TA504424]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY SPG7 (RC206340).