

Product datasheet for RC200071

SPG21 (NM_016630) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SPG21 (NM_016630) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SPG21
Synonyms:	ABHD21; ACP33; BM-019; GL010; MAST
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC200071 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGAGAGATTAAGTCTCTCCTGATTATAACTGGTTTAGAGGTACAGTCCCCCTAAAAAGATTATG
TGGATGATGATGACAGTAAGATATGGTCGCTCTATGACGCGGGCCCCGAAGTATCAGGTGTCCTCAT
ATTCCTGCCCCGTGTCAGTGGAACTGCAGATGTCTTTTCCGGCAGATTTGGCTCTGACTGGATGGGT
TACCGGTTATCGCTTTCAGTATCCAGTTTATGGGACCATCTCGAGTCTGTGATGGATTAGAAAAC
TTTTAGACCATTACAATTGGATAAAGTTCATCTTTTGGCGCTCTTTGGGAGGCTTTTGGCCAGAA
ATTTGCTGAATACACTCACAATCTCCTAGAGTCCATCCCTAATCCTCTGCAATTCCTCAGTGACACC
TCTATCTCAACCAAACTTGACTGCAAAACAGCTTTTGGCTGATGCCTGCATTTATGCTCAAAAAATAG
TTCTTGAAAATTTTTCATCTGGCCCGGTGGACCCTATGATGGCTGATGCCATTGATTTTCATGGTAGACAG
GCTAGAAAAGTTTGGGTCAGAGTGAAGTGGCTTCAAGACTACCTTGAATTGTCAAATCTTATGTGGAA
CCTCATAAAATTCGGGACATACCTGTAAGTATTATGGATGTGTTGATCAGAGTGCAGCTTCAACTGAAG
CTAAAGAAGAAATGTACAAGCTGTATCCTAATGCCGAAGAGCTCATCTGAAAACAGGAGGCAATTTCCC
ATACCTGTGCAGAAGTGCAGAGGTCAATCTTTATGTACAGATACATTTGCTGCAATTCATGGAACCAA
TACGCGCCATTGACCCATCAATGGTCAGTGCCGAGGAGCTTGGAGTGCAGAAAGGCAGCCTTGGCATCA
GCCAGGAGGAGCAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC200071 protein sequence
 Red=Cloning site Green=Tags(s)

MGEIKVSPDYNWFRGTVPLKKIIVDDDDSKIWSLYDAGPRSIRCPLIFLPPVSGTADVFFRQILALTGWG
 YRVIALQYPVYWDHLEFCDFGRKLLDHLQLDKVHLFGASLGGFLAQKFAEYTHKSPRVHSLILCNFSFSDT
 SIFNQTWTANSFWLMPAFMLKKIIVLGNFSSGPVDPMMADAIDFMVDRLESLGQSELASRLTLNCQNSYVE
 PHKIRDIPVTIMDVFDQSALSTEAKEEMYKLYPNARRAHLKTGGNFYLCRSAEVNLYVQIHLLQFHGTK
 YAAIDPSMVSAAEELEVQKGLGISQEEQ

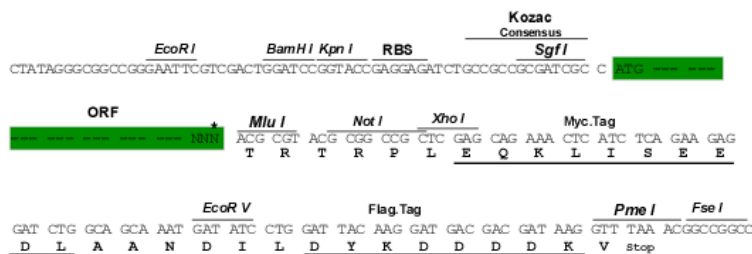
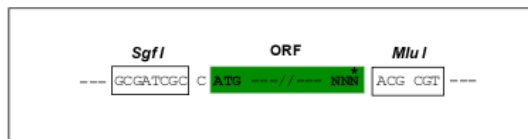
TRTRPLEQKLISEEDLAANDILDYKDDDDKVV

Chromatograms: https://cdn.origene.com/chromatograms/mk6392_e02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_016630

ORF Size: 924 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_016630.7](#)

RefSeq Size: 1839 bp

RefSeq ORF: 927 bp

Locus ID: 51324

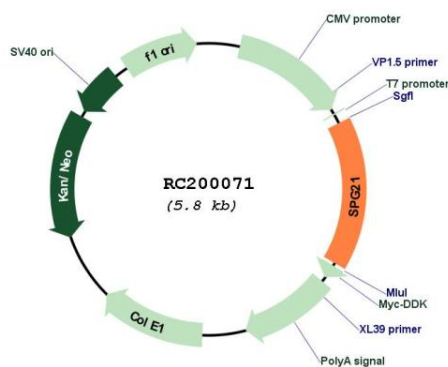
UniProt ID: [Q9NZD8](#)

Cytogenetics: 15q22.31

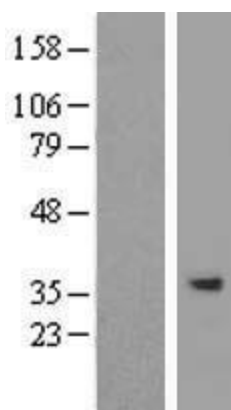
MW: 35 kDa

Gene Summary: The protein encoded by this gene binds to the hydrophobic C-terminal amino acids of CD4 which are involved in repression of T cell activation. The interaction with CD4 is mediated by the noncatalytic alpha/beta hydrolase fold domain of this protein. It is thus proposed that this gene product modulates the stimulatory activity of CD4. Mutations in this gene are associated with autosomal recessive spastic paraplegia 21 (SPG21), also known as mast syndrome. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2014]

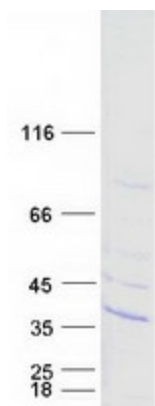
Product images:



Circular map for RC200071



Western blot validation of overexpression lysate (Cat# [LY426876]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC225431] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SPG21 protein (Cat# [TP300071]). The protein was produced from HEK293T cells transfected with SPG21 cDNA clone (Cat# RC200071) using MegaTran 2.0 (Cat# [TT210002]).