

Product datasheet for **RG212935**

SPG3A (ATL1) (NM_181598) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SPG3A (ATL1) (NM_181598) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SPG3A
Synonyms:	AD-FSP; atlastin1; FSP1; GBP3; HSN1D; SPG3; SPG3A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG212935 representing NM_181598
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCCAAGAACCGCAGGGACAGAAACAGTTGGGGTGGATTTTCGGAAAAGACATATGAATGGAGCTCAG
 AAGAGGAGGAGCCAGTGA AAAAGGCAGGACCAGTCCAAGTCTCATTGTCAAAGATGACCATTCTTTGA
 GTTAGATGAAACTGCATTA AATCGGATCCTTCTCTCGGAGGCTGTCAGAGACAAGGAGGTTGTTGCTGTA
 TCTGTTGCTGGAGCATTTAGAAAAGGAAAATCATTCTGATGGACTTCATGTTGAGATACATGTACAACC
 AGGAATCAGTTGATTGGGTTGGAGACTACAATGAACCATGACTGGTTTTTCATGGAGAGGTGGATCTGA
 GCGAGAGACCACAGGAATTCAGATATGGAGTGA AATCTTCCTTATCAATAAACCTGATGGTAAAAAGGTT
 GCAGTGTATTGATGGATACTCAGGGAACCTTTGATAGTCAGTCAACTTTGAGAGATTACGCCACAGTAT
 TTGCCCTTAGCACAATGATCAGCTCAATACAGGTATATAACTTATCCCAAAATGTCCAGGAGGATGATCT
 TCAGCACCTCCAGCTTTTCACTGAGTATGGCAGACTGGCAATGGAGGAAACATTCCTGAAGCCATTTTCAG
 AGTCTGATATTTCTTGTTCGAGACTGGAGTTCCCATACGAATTTTCATATGGAGCCGATGGTGGTGCCA
 AATTTCTGGAAAAACGCCTCAAGGTCTCAGGGAACAGCATGAAGAACTACAGAACGTCAGAAAACACAT
 CCATTCCTGTTTCACCAACATTTCTGTTTTCTGCTACCTCATCTGGCTTAAAAGTAGCTACCAATCCA
 AACTTTGATGGAAAATTGAAAGAAATAGATGATGAATTCATCAAAAACCTGAAAATACTGATTCCTTGGC
 TACTTAGTCCCGAGAGCCTAGATATTAAGAGATCAATGGGAATAAAATCACCTGCCGGGGTCTGGTGGA
 GTACTTCAAGGCTTATAAAGATCTATCAAGGTGAAGAATTACCATCCCAATCCATGTTACAGGCC
 ACAGCAGAAGCTAACAAATTTAGCAGCCGTGGCAACTGCCAAGGACACATAACAACAAAAAATGGAAGAGA
 TTTGTGGTGGTGACAAACCATTTCTGGCCCCAAATGACTTGCAGACCAACACCTGCAACTTAAGGAAGA
 ATCTGTGAAGCTATTCGAGGGGTGAAGAAGATGGGTGGGGAAGAATTTAGCCGGCGTTACTGTCAGCAG
 TTGGAGAGTGAATAGATGAACCTTACATCCAATATATCAAGCACAATGATAGCAAAAATATCTTCCATG
 CAGCTCGTACCCAGCCACACTGTTTGTAGTCATCTTTATCACATATGTGATTGCTGGTGTGACTGGATT
 CATTGGTTGGACATCATAGCTAGCCTATGCAATATGATAATGGGACTGACCCTTATCACCTGTGCACT
 TGGGCATATATCCGCTACTCTGGAGAATACCGAGAGCTGGGAGCTGTAATAGACCAGGTGGCTGCAGCTC
 TGTGGGACCAGGCTTTGTACAAGCTTTACAGTGCAGCAGCAACCCACAGACATCTGTATCATCAAGCTTT
 CCCTACACCAAAGTCGGAATCTACTGAACAATCAGAAAAGAAAAAATG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG212935 representing NM_181598
 Red=Cloning site Green=Tags(s)

MAKNRRDRNSWGGFSEKTYEWSSEEEEPVKKAGPVQVLIVKDDHSFELDETALNRILLSEAVRDKEVVAV
 SVAGAFRKGSFLMDFMLRYMYNQESVDWVGDYNEPLTGF SWRGGSERETTGIQIWISEIFL INKPDGKKV
 AVLLMDTQGT FDSQSTLRDSATVFALSTMISSIQVYNLSQNVQEDDLQHLQLFTEYGR LAMEETFLKPFQ
 SLIFLVRDWSFPYEF SYGADGGAKFLEKRLKVSQNQHEELQNVKRKHIHSCFTNISCFLLPHPLK VATNP
 NFDGKLKEIDDEFIKNLKILIPWLLSPESLDIKEINGNKITCRGLVEYFKAYIKIYQGEELPHPKSMLQA
 TAEANNLA AVATAKDTYNKKMEEICGGDKPFLAPNDLQTKHLQLKEESVKLFRGVKMMGGEEFSRRYLQQ
 LESEIDELYIQYIKHNSKNIFHAARTPATLFVVIFITYYIAGVTGFIGLDIIASL CNMIMGLTLITLCT
 WAYIRSYSGEYRELGAVIDQVAALWDQALYKLYSAAATHRHL YHQAFPTPKSESTEQSEK KKM

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_181598

ORF Size: 1659 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_181598.3](#), [NP_853629.2](#)

RefSeq Size: 2256 bp

RefSeq ORF: 1662 bp

Locus ID: 51062

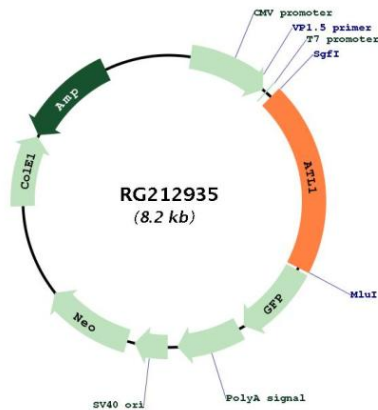
UniProt ID: [Q8WXF7](#)

Cytogenetics: 14q22.1

Protein Families: Druggable Genome, Transmembrane

Gene Summary: The protein encoded by this gene is a GTPase and a Golgi body transmembrane protein. The encoded protein can form a homotetramer and has been shown to interact with spastin and with mitogen-activated protein kinase kinase kinase 4. This protein may be involved in axonal maintenance as evidenced by the fact that defects in this gene are a cause of spastic paraplegia type 3. Three transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG212935