

## Product datasheet for **SC114592**

### SPG3A (ATL1) (NM\_015915) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SPG3A (ATL1) (NM_015915) Human Untagged Clone
Tag:	Tag Free
Symbol:	SPG3A
Synonyms:	AD-FSP; atlastin1; FSP1; GBP3; HSN1D; SPG3; SPG3A
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF sequence for NM\_015915 edited  
 ATGGCCAAGAACCGCAGGGACAGAAACAGTTGGGGTGGATTTTCGGAAAAGACATATGAA  
 TGGAGCTCAGAAGAGGAGGAGCCAGTGAAAAAGGCAGGACCAGTCCAAGTCTCATTGTC  
 AAAGATGACCATTCTTTGAGTTAGATGAAACTGCATTAATCGGATCCTTCTCTCGGAG  
 GCTGTCAGAGACAAGGAGTTGTTGCTGTATCTGTTGCTGGAGCATTTAGAAAAGGAAAA  
 TCATTCTGATGGACTTCATGTTGAGATACATGTACAACCAGGAATCAGTTGATTGGGTT  
 GGAGACTACAATGAACCATTGACTGGTTTTTCATGGAGAGGTGGATCTGAACGAGAGACC  
 ACAGGAATTCAGATATGGAGTGAATCTTCCTTATCAATAAACCTGATGGTAAAAAGGTT  
 GCAGTGTATTGATGGATACTCAGGGAACCTTTGATAGTCAGTCAACTTTGAGAGATTCA  
 GCCACAGTATTTGCCCTTAGCACAATGATCAGCTCAATACAGGTATATAACTTATCCCAA  
 AATGTCCAGGAGGATGATCTTCAGCACCTCCAGCTTTTCACTGAGTATGGCAGACTGGCA  
 ATGGAGGAAAACATTCTGAAGCCATTTTCAGAGTCTGATATTTCTGTTGAGACTGGAGT  
 TTCCCATACGAATTTTCATATGGAGCCGATGGTGGTGCCAAATCTTGAAAAACGCCTC  
 AAGGTCTCAGGGAACCAGCATGAAGAACTACAGAACGTCAGAAAACACATCCATTCTGT  
 TTCACCAACATTTCTGTTTTCTGCTACCTCATCTGGCTTAAAAGTAGTACCAATCCA  
 AACTTTGATGAAAAATTGAAAGAAATAGATGATGAATTCATCAAAAACTTGAAAAACTG  
 ATTCCTTGGCTACTTAGTCCCGAGAGCCTAGATATTAAGAGATCAATGGGAATAAAATC  
 ACCTGCCGGGGTCTGGTGGAGTACTTCAAGGCTTATATAAAGATCTATCAAGGTGAAGAA  
 TTACCACATCCCAATCCATGTTACAGGCCACAGCAGAAGCTAACAAATTTAGCAGCCGTG  
 GCAACTGCCAAGGACACATACAACAAAAAATGGAAGAGATTTGTGGTGGTGACAAACCA  
 TTTCTGGCCCCAATGACTTGCAGACCAAAACACCTGCACTTAAGGAAGAATCTGTGAAG  
 CTATTCGAGGGGTGAAGAAGATGGTGGGGAAGAATTTAGCCGGCGTTACCTGCAGCAG  
 TTGGAGAGTGAAATAGATGAATTTACATCCAATATATCAAGCACAAATGATAGCAAAAA  
 ATCTTCCATGCAGCTCGTACCCAGCCACTGTTTGTAGTCATCTTTATCACATATGTG  
 ATTGCTGGTGTGACTGGATTCTTGGTTTTGGACATCATAGCTAGCCTATGCAATATGATA  
 ATGGGACTGACCCTTATCACCTGTGCACTTGGGCATATATCCGGTACTCTGGAGAATAC  
 CGAGAGCTGGGAGCTGTAATAGACCAGGTGGCTGCAGCTCTGTGGGACCAGGGAAGTACA  
 AATGAGGCTTTGTACAAGCTTTACAGTGCAGCAGCAACCCACAGACATCTGTATCATCAA  
 GCTTTCCCTACACCAAAGTCGGAATCTACTGAACAATCAGAAAAGAAAAAATGTAA

**5' Read Nucleotide Sequence:** >OriGene 5' read for NM\_015915 unedited  
 ATTTGTATACGACTCATATAGGGCGGCCGGAATTCGCACGAGGGCGCCAGCGCGGGCA  
 CGGAGCCTCCCACCGCCAGCAACCTGCGGCCCGGAGAAGGCAGCGAGCGCAGTGACAGC  
 GCCTCACCGCCACCAGCTCCTGGACCACCATGGCCAAGAACCAGGGACAGAAACAGTT  
 GGGGTGGATTTTCGAAAAAGACATATGAATGGAGCTCAGAAGAGGAGGAGCCAGTGAAAA  
 AGGCAGGACCAGTCCAAGTCTCATTGTCAAAGATGACCATTCTTTGAGTTAGATGAAA  
 CTGCATTAATCGGATCCTTCTCTCGGAGGCTGCAGAGACAAGGAGGTTGTTGCTGTAT  
 CTGTTGCTGGAGCATTTAGAAAAGGAAAAATCATTCTGATGGACTTCATGTTGAGATACA  
 TGTACAACCAGGAATCAGTTGATTGGGTTGGAGACTACAATGAACCATTGACTGGTTTTT  
 CATGGAGAGGTGGATCTGAACGAGAGACCAGGAATTCAGATATGGAGTGAAATCTTCC  
 TTATCAATAAACCTGATGGTAAAAAGGTTGCAGTGTATTGATGGATACTCAGGGAACCT  
 TTGATAGTCAGTCAACTTTGAGAGATTCAGCCACAGTATTTGCCCTTAGCACAATGATCA  
 GCTCAATACAGGTATATAACTTATCCANATGTCCAGGAGGATGATCTTCAGCACCTCCA  
 GCTTTTCACTGAGTATGGCAGACTGGNCATGGAGGAAACATTCTGAAGCCATTTTCAGAG  
 TCTGATATTTCTTGGTCGAGACTGGAGTTNNCCATACGAATTTTCATATGGAGCCGATGG  
 TGGTGCCCAATCTTGAAAAACGCTCAGTCTCAGGAACC

<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_015915 unedited NTTTTAGCTCTGNACCCGCGCCGCAATCTAGGATCGAGTTTTTTTTTTTTTTTTTATC ATAAATAGACAAATACTTTATAACAGCATTTTTGAAGAAAAATCAGGAAATTGTACATGT TAACAAAATAGTATAACCATGCATACATACATCTGCTTATTAACACTGAAGTAAAAGAA CTAATCCAGTTTGAGTCTTCAGAGGTGTTTAGTATTTACTCCGTTCTGATGGAAGCAC TTTGAATGTTGCATGGAGACATAAACTGAATATTTAATTGACAATTGGTCATGCACCT GTATTTCTTAAAATTTGCATTACATTTTTTTCTTTTCTGATTGTTTCAGTAGATTCCGACT TTGGTGTAGGAAAGCTTGATGATACAGATGTCTGTGGGTTGCTGCTGCACTGTAAGACT TGTACAAAGCCTCATTTGTACTTCCCTGGTCCCACAGAGCTGCAGCCACCTGGTCTATTA CAGCTCCCAGCTCTCGGTATTCTCCAGAGTACCGGATATATGCCCAAGTGCACAGGGTGA TAAGGGTCAGTCCCATCATCACTGCCTAGGCTAGCTATGATGTCCAAACCCATGAATT CAGTCACACCAGCACTTACATATGTGATCAAGATGACTCCAAACAGTGTGGCTGGGGTAC GAGCTGCCTGAAAGAATTTCTGCTATCATTGCGCCTGATATATTGGATGCAAAGCTCAT CTATTTCACTCTCCAAGTCTGGAGGTAACGCCCGGTTAATTTTTCCCACCCATCTTCT TCACCCCTCGAATACCTTATAGATTCTTCTTAATTGCCAGTGTGGTCTGCAACTCAT CCGGTGCCACAAAGGGCTGGCACCCACAAATCTCCCTTTTTCGGTGGATGGTCCCG CN
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_015915
<b>Insert Size:</b>	630 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_015915.3</a> , <a href="#">NP_056999.2</a>
<b>RefSeq Size:</b>	2271 bp
<b>RefSeq ORF:</b>	1677 bp
<b>Locus ID:</b>	51062
<b>UniProt ID:</b>	<a href="#">Q8WXF7</a>
<b>Cytogenetics:</b>	14q22.1
<b>Protein Families:</b>	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]

Transcript Variant: This variant (1) encodes the longer isoform (a).