

Product datasheet for **SC307972**

Spastin (SPAST) (NM_199436) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Spastin (SPAST) (NM_199436) Human Untagged Clone
Tag:	Tag Free
Symbol:	SPAST
Synonyms:	ADPSP; FSP2; SPG4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >SC307972 representing NM_199436.
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGAATTCTCCGGGTGGACGAGGGAAGAAGAAAGGCTCCGGCGGCCAGCAACCCGGTGCCTCCCAGG
CCTCCGCCCCCTTGCCCTGGCCCCCGCCCTCCCGCCCGGCCGCCCTCCGCCCGAGTCGCCGCAT
AAGCGGAACCTGTACTATTTCTCCTACCCGCTGTTTGTAGGCTTCGCGCTGCTGCGTTTGGTCGCCTTC
CACCTGGGGCTCCTCTTCGTGTGGCTCTGCCAGCGCTTCTCCCGCCCTCATGGCAGCCAAGAGGAGC
TCCGGGGCCGCGCCAGCACCTGCCTCGGCCTCGGCCCGCGCCGGTGCCGGGCGCGAGGCCGAGCGC
GTCCGAGTCTTCCACAAACAGGCCTTCGAGTACATCTCCATTGCCCTGCGCATCGATGAGGATGAGAAA
GCAGGACAGAAGGAGCAAGCTGTGGAATGGTATAAGAAAGGTATTGAAGAACTGGAAAAAGGAATAGCT
GTTATAGTTACAGGACAAGGTGAACAGTGTAAAGAGCTAGACGCCTTCAAGCTAAAATGATGACTAAT
TTGTTATGGCCAAGGACCGCTTACAACCTCTAGAAAAGTGAGCTGTTCCAAAAAGAAAAGACCCCTTA
ACACACTAGTAATTCAGTGCCTCGTTCAAAAACAGTTATGAAAAGTGGATCTGCAGGCCCTTTCAGGC
CACCATAGAGCACCTAGTTACAGTGGTTTATCCATGGTTTCTGGAGTGAAACAGGGATCTGGTCCTGCT
CCTACCACTCATAAGGGTACTCCGAAAACAAAATAGGACAATAAACTTCTACCCCTACAACCTGCTACT
CGTAAGAAAAAAGACTTGAAGAATTTTAGGAATGTGGACAGCAACCTTGCTAACCTTATAATGAATGAA
ATTGTGGACAAATGGAACAGCTGTAAATTTGATGATATAGCTGGTCAAGACTTGGCAAAACAAGCATTG
CAAGAAATTGTTATTTCTCCTTCTGAGGCCTGAGTTGTTACAGGGCTTAGAGCTCCTGCCAGAGGG
CTGTTACTCTTTGGTCCACCTGGGAATGGGAAGACAATGCTGGCTAAAGCAGTAGCTGCAGAATCGAAT
GCAACCTCTTTAATAATAAGTGTGCAAGTTTAACTTCAAATAACGTGGGAGAAGGAGAGAAATTTGGTG
AGGGCTCTTTTGGCTGTGGCTCGAGAACTCAACCTTCTATAATTTTTATAGTGAAGTTGATAGCCTT
TTGTGTAAAGAAGAGAAGGGGAGCACGATGCTAGTAGACGCCTAAAAACTGAATTTCTAATAGAAATTT
GATGGTGTACAGTCTGCTGGAGATGACAGAGTACTTGTAAATGGGTGCAACTAATAGGCCACAAGAGCTT
GATGAGGCTGTTCTCAGGCGTTTCATCAAACGGGTATATGTGTCTTTACCAAATGAGGAGACAAGACTA
CTTTTGTAAAAATCTGTTATGTAACAAGGAAGTCCATTGACCCAAAAAGAACTAGCACAACTTGCT
AGAATGACTGATGGATACTCAGGAAGTGACCTAACAGCTTTGGCAAAAGATGCAGCACTGGGTCCTATC
CGAGAATAAAACCAGAACAGGTGAAGAATATGTCTGCCAGTGAGATGAGAAATATTCGATTATCTGAC
TTCAGTGAATCCTTGAAAAAAATAAACGCAGCGTCAGCCCTCAAACCTTAGAAGCGTACATACGTTGG
AACAGGACTTTGGAGATACCACTGTTTAA
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
  
```

- Restriction Sites:** SgfI-MluI
- Plasmid Map:** □
- ACCN:** NM_199436
- Insert Size:** 1755 bp
- OTI Disclaimer:** 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).
- OTI Annotation:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
- 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_199436.1](#)

RefSeq Size: 5125 bp

RefSeq ORF: 1755 bp

Locus ID: 6683

UniProt ID: [Q9UBP0](#)

Cytogenetics: 2p22.3

Protein Families: Druggable Genome, Transmembrane

MW: 63.6 kDa

Gene Summary: This gene encodes a member of the AAA (ATPases associated with a variety of cellular activities) protein 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. The use of alternative translational initiation sites in this gene results in a single transcript variant that can produce isoforms that differ in the length of their N-terminus and which thereby differ in the efficiency of their export from the nucleus to the cytoplasm. In addition, alternative splicing results in multiple transcript variants that encode isoforms that differ in other protein regions as well. One isoform of this gene has been shown to be a microtubule-severing enzyme that regulates microtubule abundance, mobility, and plus-end distribution. Mutations in this gene cause the most frequent form of autosomal dominant spastic paraplegia 4. [provided by RefSeq, May 2018]

Transcript Variant: This variant (2) lacks an in-frame segment of the coding region, compared to variant 1. It encodes a shorter isoform (2), compared to isoform 1. This variant is also predicted to use an alternate, in-frame, downstream translation initiation site to encode an even shorter isoform.