Construct information sheet

Gene name	**SPAST**
Uniprot ID	Q9UBP0
Region	G198 - V584

Description	Spastin
Synonyms	ADPSP, FSP2, SPG4.
Construct ID	SPASTB-c011
Protein sequence	*MHHHHHHSSGVDLGTENLYFQ*SM*GAVPKRKDPLTHTSNSLPRSK TVMKTGSAGLSGHHRAPSYSGLSMVSGVKQGSGPAPTTHKGTPKT NRTNKPSTPTTATRKKKDLKNFRNVDSNLANLIMNEIVDNGTAVK FDDIAGQDLAKQALQEIVILPSLRPELFTGLRAPARGLLLFGPPG NGKTMLAKAVAAESNATFFNISAASLTSKYVGEGEKLVRALFAVA RELQPSIIFIDEVDSLLCERREGEHDASRRLKTEFLIEFDGVQSA GDDRVLVMGATNRPQELDEAVLRRFIKRVYVSLPNEETRLLLLKN LLCKQGSPLTQKELAQLARMTDGYSGSDLTALAKDAALGPIRELK PEQVKNMSASEMRNIRLSDFTESLKKIKRSVSPQTLEAYIRWNKD FGDTTVS*SKGGYGLNDIFEAQ**K***IEWHE*
DNA sequence (coding sequence)	ATGCACCATCATCATCATCATTCTTCTGGTGTAGATCTGGGTACC GAGAACCTGTACTTCCAATCCATGGGAGCTGTTCCAAAAAGAAAA GACCCCTTAACACACACTAGTAATTCACTGCCTCGTTCAAAAACA GTTATGAAAACTGGATCTGCAGGCCTTTCAGGCCACCATAGAGCA CCTAGTTACAGTGGTTTATCCATGGTTTCTGGAGTGAAACAGGGA TCTGGTCCTGCTCCTACCACTCATAAGGGTACTCCGAAAACAAAT AGGACAAATAAACCTTCTACCCCTACAACTGCTACTCGTAAGAAA AAAGACTTGAAGAATTTTAGGAATGTGGACAGCAACCTTGCTAAC CTTATAATGAATGAAATTGTGGACAATGGAACAGCTGTTAAATTT GATGATATAGCTGGTCAAGACTTGGCAAAACAAGCATTGCAAGAA ATTGTTATTCTTCCTTCTCTGAGGCCTGAGTTGTTCACAGGGCTT AGAGCTCCTGCCAGAGGGCTGTTACTCTTTGGTCCACCTGGGAAT GGGAAGACAATGCTGGCTAAAGCAGTAGCTGCAGAATCGAATGCA ACCTTCTTTAATATAAGTGCTGCAAGTTTAACTTCAAAATACGTG GGAGAAGGAGAGAAATTGGTGAGGGCTCTTTTTGCTGTGGCTCGA GAACTTCAACCTTCTATAATTTTTATAGATGAAGTTGATAGCCTT TTGTGTGAAAGAAGAGAAGGGGAGCACGATGCTAGTAGACGCCTA AAAACTGAATTTCTAATAGAATTTGATGGTGTACAGTCTGCTGGA GATGACAGAGTACTTGTAATGGGTGCAACTAATAGGCCACAAGAG CTTGATGAGGCTGTTCTCAGGCGTTTCATCAAACGGGTATATGTG TCTTTACCAAATGAGGAGACAAGACTACTTTTGCTTAAAAATCTG TTATGTAAACAAGGAAGTCCATTGACCCAAAAAGAACTAGCACAA CTTGCTAGAATGACTGATGGATACTCAGGAAGTGACCTAACAGCT TTGGCAAAAGATGCAGCACTGGGTCCTATCCGAGAACTAAAACCA GAACAGGTGAAGAATATGTCTGCCAGTGAGATGAGAAATATTCGA TTATCTGACTTCACTGAATCCTTGAAAAAAATAAAACGCAGCGTC AGCCCTCAAACTTTAGAAGCGTACATACGTTGGAACAAGGACTTT GGAGATACCACAGTTAGCAGTAAAGGTGGATACGGCCTGAATGAT ATCTTTGAAGCGCAGAAGATTGAATGGCATGAATGA
Construct accession No.	

Vector information:

pNIC-Bio3	
Antibiotic resistance	Kanamycin, 50 μg/ml
Promoter	T7 - lacO

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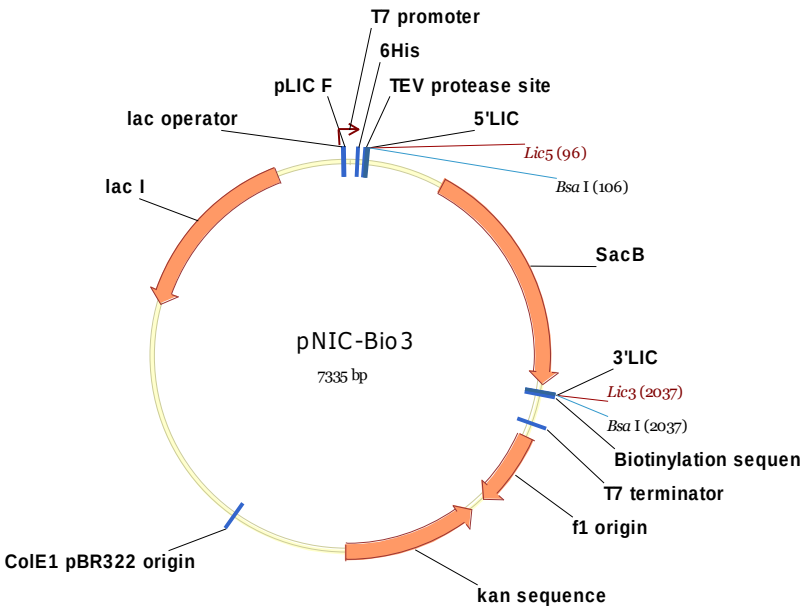
N-terminal fusion – seq.	MHHHHHHSSGVDLGTENLYFQ*SM (* - TEV cleavage site)
N-terminal fusion – MW	2684.1 Da including Met (2465.8 Da removed by TEV cleavage)
C-terminal fusion – seq.	GSKGGYGLNDIFEAQ**K***IEWHE (* biotinylation site)
C-terminal fusion - MW	2396.57 Da, +226 Da for biotinylation
Protease cleavage	TEV protease
Preferred expression host	DE3 hosts: BL21, Rosetta, etc. MUST express T7 RNA polymerase. For effective biotinylation, the host should overexpress BirA (e.g. from plasmid pCDF-BIRA, GenBank: JF914075)
Genebank: JN792439	Reference: PMID: 22027370



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