

Product datasheet for **RC224633**

Spectrin beta chain, brain 3 (SPTBN4) (NM_025213) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Spectrin beta chain, brain 3 (SPTBN4) (NM_025213) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Spectrin beta chain, brain 3
Synonyms:	CMND; NEDHND; QV; SPNB4; SPTBN3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>RC224633 representing NM_025213
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTGATGGCGGGGATGGCACGCGGGAGGACAACCACAAGCTGCATAAGAGATGGCTCCGGCACCAGG
 CATTTCATGGCCGAGCTGGCTCAGAATAAGGAGTGGCTGGAGAAGATCGAGCGGGAGGGCCAGCAACTGAT
 GCAGGAGAAGCCCGAACTGGCGGCTCCGTGCGGAAGAAGCTGGGCGAGATCCGCCAGTGCCTGGCGGGAG
 CTGGAGAGCACCACCCAGGCCAAGGCACGGCAGCTCTTTGAGGCCAGCAAAGCAGACCAGCTGGTGCAGA
 GCTTTGCTGAGCTGGACAAGAAGCTCCTTCACATGGAGAGCCAGCTGCAAGACGTGGACCCTGGAGGAGA
 CCTGGCCACTGTCAACAGTCAGCTCAAGAAGCTGCAGTCCATGGAGTCGCAGGTGGAGGAGTGGTACCGC
 GAGGTGGGAGAGCTGCAGGCGCAGACGGCGGCGCTGCCGCTGGAGCCGGCGAGCAAGGAGCTGGTGGGTG
 AGCGGCAGAACCGGTGGGCGAGCGCTGGTGCCTGCTCGAGCCGTTGCAGGAGCGCCCGCTTGTCT
 GCTGGCTTCCAAGGAGTGCACAGGTGGCGCACGACCTGGACGACGAGCTGGCATGGGTTTCAGGAGCGG
 CTGCCACTGGCCATGCAGACAGAGCGAGCAACGGTTTGCAGGCGGTCCAGCAGCACATCAAAAAGAACC
 AGGGCCTGCGGCGGGAGATCCAGGCGCATGGGCCGCGCCTGGAGGAGGTGCTGGAGCGCGCGGGCGCGCT
 GGCGTCGCTGCGCAGCCCGGAGGCAGAGGCAGTGCGCCGGGGCCTGGAGCAGCTGCAGAGCGCCTGGGCC
 GGACTGCGGGAGGCTGCCGAGCGACGGCAGCAGGTGCTGGACGCCGCTTCCAGGTGGAGCAGTACTACT
 TCGACGTGGCTGAGGTGGAGGCGTGGCTGGGCGAGCAGGAGTGCATGATGAGTGAGGACAAGGGCAA
 GGACGAACAGAGCACCCTGCAGCTGCTCAAGAAACACCTGCAGCTGGAGCAAGGCGTGGAGAACTACGAG
 GAAAGCATCGCGCAGCTGTCGCGCCAGTCCCGGCGCTGCTGGAGATGGGGCACCCGGACAGCGAGCAGA
 TCAGCCGGCGGCGAGTCTCAGGTGACCCGCTGTACGTGGCGCTCAAGGAGCTGGGTGAGGAGCGCCGGGT
 GGCTCTGGAACAGCAGTACTGGCTGTACCAGCTCAGCCGCCAGGTGAGCGAGCTTGAGCACTGGATTGCC
 GAGAAGGAGGTGGTGGCTGGCTACCCGAGCTCGGCCAGGACTTTGAGCATGTCTCGGTGCTGCAGGAGA
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 GGATGAGCTGATCGAGTGTGGCCATACAGCAGCGGCCACCATGGCCGAGTGAAGGACGGACTGAACGAG
 GCCTGGGCTGAGCTGCTGGAGCTCATGGGCACACGGGCCAGCTGCTGGCCGCTCTCGGGAGCTTCATA
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 CACCCCGCTGAGCCGAGACCCAGTCCAGTTCATGCAGCGGACCCTGAGAGCCTTTGAGCATGACCTG
 CAGCTCCTCGTGTCCCAGGTACGGCAGCTGCAGGAGGGGGCGGCCAGCTGCGGACGGTGTATGCGGGTG
 AACATGCCGAGGCCATCGCTAGCCGGGAGCAGGAGGTGCTGCAGGTTGGAAGAGCTGCTGTACGCTG
 TGAGGATGCCCGCTGCATGTACAGTCCACAGCCGACGCCCTGCGCTTCCACAGCCAAGTCCGCGACCTG
 CTCTCCTGGATGGATGGCATCGCCAGCCAGATTGGGGCAGCCGACAAGCCAGGTGCCCTCATCCCTCC
 TCGGGTTCCTGCCTCCCCCTGGTGGCTACCCAGCCACCCCAAGCCATTGACAGCCCCCTTCTCAAT
 GGAA

ACGCGTACGCGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC224633 representing NM_025213
 Red=Cloning site Green=Tags(s)

MLMARDGTREDNHKLHKRWLRHQAFMAELAQNKEWLEKIEREGQQLMQEKPELAASVRKKLGEIRQCWAE
 LESTTQAKARQLFEASKADQLVQSF AELDKLLHMESQLQDVPDGLATVNSQLKKLQSMESQVEEWYR
 EVGELQAQTAALPLEPASKELVGERQNAVGERLVRLLLEPLQERRRLLASKELHQVAHDLDELAWVQER
 LPLAMQTERGNLQAVQQHIKKNQGLRREIQAHGPRLEEVLERAGALASLRSPAEAVRRGLEQLQSAWA
 GLREAAERRQQVLDAAFQVEQYYFDVAEVEAWLGEQELLMSEDKGKDEQSTLQLLKKHLQLEQGVENYE
 ESIAQLSRQCRALLEMGHPDSEQISRRQSQVDRLYVALKELGEERRVALEQQYWLYQLSRQVSELEHWIA
 EKEVVAGSPELGQDFEHVSVLQEKFSEFASETGMAGRERLAAVNQMVDELIECGHTAAATMAEWKDLNE
 AWAELLELMGTRAQLLAASRELHKFFSDARELQGGQIEEKRRRLPRLTTPPEPRPSASSMQRTLRAFEHDL
 QLLVSQVRQLQEGAAQLRTVYAGEHAEIASREQEVLQGWKELL SACEDARLHVSSTADALRFHSQVRDL
 LSWMDGIASQIGAADKPRCPSSLLGLPASPWWPTPATPSPLTAPFSME

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_025213

ORF Size: 2034 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_025213.3](#)

RefSeq Size: 2419 bp

RefSeq ORF: 2037 bp

Locus ID: 57731

UniProt ID: [Q9H254](#)

Cytogenetics: 19q13.2

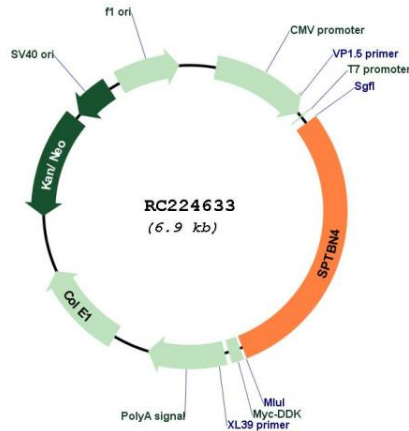
Domains: CH, PH, spectrin

MW: 77.2 kDa

Gene Summary:

Spectrin is an actin crosslinking and molecular scaffold protein that links the plasma membrane to the actin cytoskeleton, and functions in the determination of cell shape, arrangement of transmembrane proteins, and organization of organelles. It is composed of two antiparallel dimers of alpha- and beta- subunits. This gene is one member of a family of beta-spectrin genes. The encoded protein localizes to the nuclear matrix, PML nuclear bodies, and cytoplasmic vesicles. A highly similar gene in the mouse is required for localization of specific membrane proteins in polarized regions of neurons. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC224633