

Product datasheet for **RC223952**

Dystrobrevin alpha (DTNA) (NM_032979) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dystrobrevin alpha (DTNA) (NM_032979) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Dystrobrevin alpha
Synonyms:	D18S892E; DRP3; DTN; DTN-A; LVNC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC223952 representing NM_032979
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGATTGAAGATAGTGGGAAAAGAGGAAATACCATGGCAGAAAGAAGACAGCTGTTTGCAGAGATGAGGG
 CTAAGATCTGGATCGCATCCGACTCTCCACCTACAGAACAGCATGCAAGCTTAGGTTTGTTCAGAAGAA
 ATGCAATTTGCACCTGGTGGACATATGGAATGTATAGAAGCATTGCGGGAAAATGCTCTGAACAACCTG
 GACCCAAACACTGAACTCAACGTGTCCCCTTAGAGGCTGTGCTCTCCACTATTTTTTACCAGCTCAACA
 AACGGATGCCAACACTCACAAATCCATGTGGAGCAGTCCATCAGCCTCCTCCTAACTCCTGCTTGC
 AGCGTTTGTATCCGGAAGGCCATGGTAAAATTCAGTATTTGCTGTCAAAATGGCTTTAGCCACATTTGT
 GGAGGGAAGATCATGGACAAATTAAGATATATTTTCTCAATGATTTCTGACTCCAGTGGGTGATGGTTT
 ATGGACGATATGACCAATTCCTTCGGGAAGTTCTCAAACACCCAGCAGTTTTTGAAGGTCCTTCATT
 TGGTTACACAGAACAGTCAGCCAGATCCTGTTTCTCCCAACAGAAAAAGTCACGTTAAATGGTTTCTTG
 GACACGCTTATGTGAGATCCTCCCCGAGTGTCTGGTCTGGTTGCCTCTTCTGCATCGACTAGCAAATG
 TGGAAAATGTCTTCCATCCGTTGAGTGTCTCTACTGCCACAGTGAAGTATGATGGGATTTGCTACCG
 ATGCCAACAGTGTCAAAATACCAGCTCTGTCCAGGACTGCTTCTGGAGGGGACATGCCGGTGGTTTCAT
 AGCAACCAGCACCAATGAAAGAGTACACGTATGGAATCACCTGCTAAGAAGCTGACTAATGCATTAA
 GCAAGTCCCTGAGCTGTGCTTCCAGCCGTGAACCTTTCACCCCATGTTCCAGATCAGCCTGAGAAGCC
 ACTCAACTTGGCTCACATCGTTGATACTTGGCCTCCCAGACCTGTAAACCAGCATGAACGACACCTGTT
 TCCCACTCTGTTCCCTCCTCAGGAAGTCTTTTATTACCAGGAGCATGCTTGAGAGTTCAAACCGGCTTG
 ATGAAGAACACAGGCTAATTGCCAGGTATGCGGCAAGGCTGGCAGCAGAGTCTCTTCGCTCAGCCACC
 TCAGCAGAGAAGTCTCCTGACATCTTTTCCACATCGATGCGAATAAGCAGCAAAGGCAGCTGATTGCT
 GAGCTAGAAAACAAGAACAGAGAAATCTTACAGGAGATCCAGAGACTTCGGCTAGAGCATGAACAAGCTT
 CTCAGCCACGCCAGAGAAGGCACAGCAAAACCCACCCTGCTGGCAGAACTCCGGCTCCTCAGACAGCG
 CAAAGATGAGCTGGAACAGAGAAATGTCTGCTCTCCAGGAGAGCCGGAGAGAGCTAATGGTCCAGTTGGAG
 GGTCTCATGAAGCTACTAAAGGAAGAAGAACTGAAGCAGGGAGTAAGTTATGTCCCTACTGCAGGTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC223952 representing NM_032979
 Red=Cloning site Green=Tags(s)

MIEDSGKRGNTMAERRQLFAEMRAQDLDRIRLSTYRTACKLRFVQKKNLHLVDIWNVIEALRENALNNL
 DPNTELVNLSRLEAVLSTIFYQLNKRMPPTHQIHVEQSI SLLLNFLLAADFPEGHGKISVFAVKMALATLC
 GGKIMDKLRYIFSMISDSSGVMVYGRYDQFLREV LKLP TAVFEGPSFGYTEQSARSCFSQQKVTNLNGL
 DTLMSDPPPQCLVWLPLLHRLANVENVFHPVECSYCHSESMGFRYRCQQCHNYQLCQDCFWRGHAGGSH
 SNQHQMKEYTSWKSPAKKLTNALSLSLSCASSREPLHPMPDQPEKPLNLAHIVDTWPPRPVTSMNDFL
 SHSVPSSGSPFITRSMLESSNRLDEEHLIARYAARLAAESSSSQPPQQR SAPDISFTIDANKQQRQLIA
 ELENKNREILQEIQRLRLEHEQASQPTPEKAQQNPTLLAELRLLRQRKDELEQRMSALQESRRELMVQLE
 GLMKLLKEEELKQGVSYVPYCRS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6486_g02.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_032979

ORF Size: 1539 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_032979.5](#)

RefSeq Size: 3110 bp

RefSeq ORF: 1542 bp

Locus ID: 1837

UniProt ID: [Q9Y4J8](#)

Cytogenetics: 18q12.1

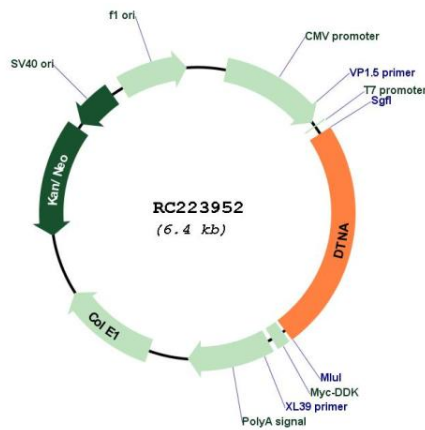
Domains: ZnF_ZZ

Protein Families: Druggable Genome

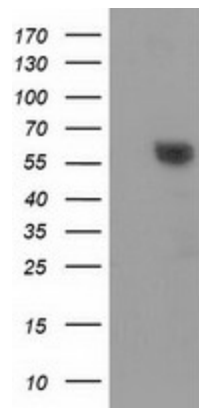
MW: 58.7 kDa

Gene Summary: The protein encoded by this gene belongs to the dystrobrevin subfamily of the dystrophin family. This protein is a component of the dystrophin-associated protein complex (DPC), which consists of dystrophin and several integral and peripheral membrane proteins, including dystroglycans, sarcoglycans, syntrophins and alpha- and beta-dystrobrevin. The DPC localizes to the sarcolemma and its disruption is associated with various forms of muscular dystrophy. Mutations in this gene are associated with left ventricular noncompaction with congenital heart defects. Multiple alternatively spliced transcript variants encoding different isoforms have been identified for this gene. [provided by RefSeq, Jul 2008]

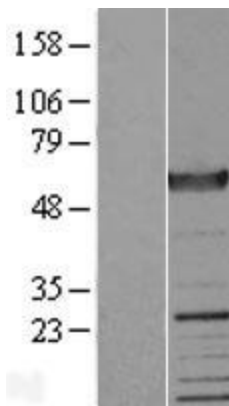
Product images:



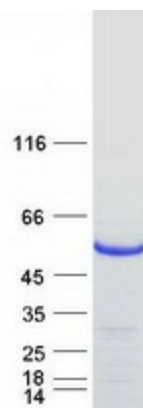
Circular map for RC223952



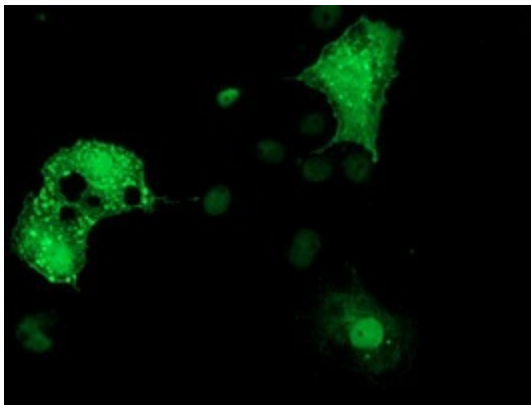
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY DTNA (Cat# RC223952, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-DTNA (Cat# [TA502184]). Positive lysates [LY409817] (100ug) and [LC409817] (20ug) can be purchased separately from OriGene.



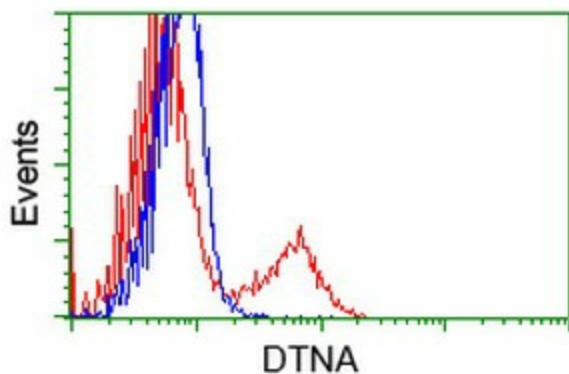
Western blot validation of overexpression lysate (Cat# [LY409817]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223952 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DTNA protein (Cat# [TP323952]). The protein was produced from HEK293T cells transfected with DTNA cDNA clone (Cat# RC223952) using MegaTran 2.0 (Cat# [TT210002]).



Anti-DTNA mouse monoclonal antibody ([TA502184]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY DTNA (RC223952).



HEK293T cells transfected with either RC223952 overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-DTNA antibody ([TA502184]), and then analyzed by flow cytometry.