

Product datasheet for RC201642

CAPZA1 (NM_006135) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CAPZA1 (NM_006135) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CAPZA1
Synonyms:	CAPPA1; CAPZ; CAZ1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201642 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCGACTTCGATGATCGTGTGTCGGATGAGGAGAAGGTACGCATAGCTGCTAAATTCATCACTCATG
CACCCCAGGGGAATTTAATGAAGTATTCAATGACGTTCCGGCTACTACTTAATAATGACAATCTCCTCAG
GGAAGGGGCAGCACATGCATTTGCCAGTATAACATGGATCAGTTCACGCCTGTGAAGATAGAAGGATAT
GAAGATCAGGTCTTAATTACAGAGCACGGTGACCTGGTAATAGCAGATTTTAGATCCAAGAAACAAAA
TTTCCTTTAAATTTGACCACTTACGAAAGAAGCAAGTGACCCCAAGCAGAAGAAGCAGATGGAGGTCT
GAAGTCTTGGAGAGAATCCTGTGACAGTGCTTTAAGAGCCTATGTGAAAGACCATTATCCAACGGCTTC
TGTAAGTGTATGCTAAAATATCGATGGCAACAGACTATTATTGCATGTATTGAAAGCCACCAGTTTC
AGCCTAAAACCTTCTGGAATGGTCGTTGGAGATCAGAGTGAAGTTCACCATCACACCACCTACAGCCCA
GGTGGTTGGCGTGCTTAAGATTCAGGTTCACTATTATGAAGATGGCAATGTTTCAGTTGGTTAGTCATAAA
GATGTACAGGATCACTAACTGTTTCGAATGAAGCCAACTGCCAAGGAGTTTATTAATAATCATAGAGA
ATGCAGAAAATGAGTATCAGACAGCAATTAGTGAAAATATCAACAATGTCAGATACCACATTCAGGC
CTTGCCCGGCAGCTTCCAGTTACCCGCACCAAAATCGACTGGAACAAGATACTCAGCTACAAGATTGGC
AAAGAAATGCAGAATGCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC201642 protein sequence
Red=Cloning site Green=Tags(s)

MADFDDRVSDEEKVRIA AKFITHAPPGEFNEVFNDVRLLLNNDNLLREGAAHAF AQYNMDQFTPVKIEGY
 EDQVLI TEHGDLGNSRFLDPRNKISFKFDHLRKEASDPQPEEADGGLKSWRESCDSALRAYVKDHYSNGF
 CTVYAKTIDGQQTIIACIESHQFPKNFWNGRWRSEWKF TITPPTAQVVGVLKIQVHYHEDGNVQLVSHK
 DVQDSLTVSNEAQTAK EFKIKI IENAENEYQT AISENYQ TMSD TTFKALRRQLPVTRTKIDWNKILSYKIG
 KEMQNA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6001_b06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_006135

ORF Size: 858 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.

RefSeq: [NM_006135.3](#)

RefSeq Size: 2758 bp

RefSeq ORF: 861 bp

Locus ID: 829

UniProt ID: [P52907](#)

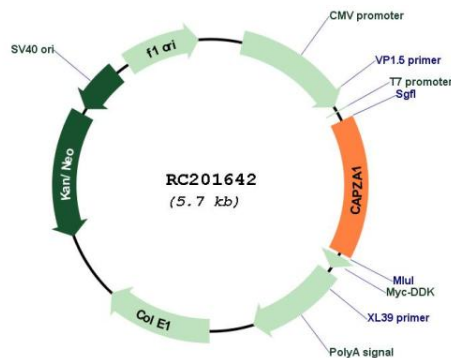
Cytogenetics: 1p13.2

Domains: F-actin_cap_A

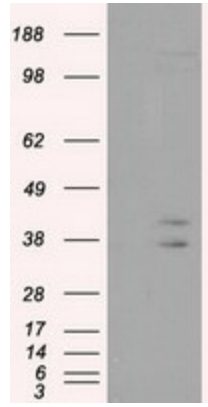
MW: 32.9 kDa

Gene Summary: CAPZA1 is a member of the F-actin capping protein alpha subunit family. This gene encodes the alpha subunit of the barbed-end actin binding protein. The protein regulates growth of the actin filament by capping the barbed end of growing actin filaments. [provided by RefSeq, Jul 2008]

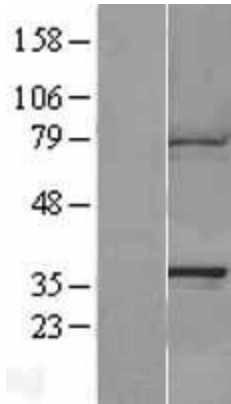
Product images:



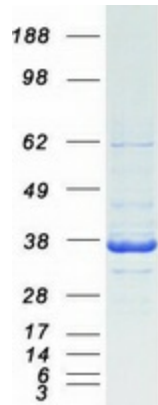
Circular map for RC201642



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CAPZA1 (Cat# RC201642, 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-CAPZA1(Cat# [TA501124]). Positive lysates [LY401848] (100ug) and [LC401848] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401848]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201642 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CAPZA1 protein (Cat# [TP301642]). The protein was produced from HEK293T cells transfected with CAPZA1 cDNA clone (Cat# RC201642) using MegaTran 2.0 (Cat# [TT210002]).