

## Product datasheet for **MR228848**

### Capzb (NM\_001271406) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Capzb (NM_001271406) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Capzb
Synonyms:	1700120C01Rik; AI325129; Cappb1; CPB1; CPB2; CPbeat2; CPbeta1; CPbeta2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR228848 representing NM_001271406 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCC**CGCATCGCC**

ATGAGGCGCCTGCCTCCACAGCAGATTGAGAAGAACCTCAGCGATCTGATCGACCTGGTCCCCAGTCTGTGTGAAGATCTCCTGTCATCTGTTGACCAGCCCCTGAAAATTGCCAGAGACAAGGTGGTGGCAAGGATTA  
CCTTTTGTGTGACTACAACAGAGACGGGGACTCCTATAGGTCACCGTGGAGTAACAAGTATGACCCTCCT  
TTGGAAGATGGGGCCATGCCATCTGCTCGGCTCAGAAAGCTGGAGGTAGAGGCCAACAAATGCCTTCGACC  
AATACCGAGACCTGTATTTGAAGGTGGGTCTCATCAGTCTACCTCTGGGATCTTGATCATGGCTTTGC  
TGGAGTGATCCTCATAAAGAAAGCTGGAGATGGATCCAAGAAGTCAAAGGCTGCTGGGATTCATCCAC  
GTGGTGAAGTGCAGGAGAAGTCCAGCGCCGTAAGTCCATTACAAGTTGACCTCCACGGTGATGCAT  
GGCTGCAAACCAAAATCCGGCTCGGGCACCATGAACCTGGGAGGCAGCCTAACAGACAGATGGAGAA  
AGACGAAACTGTGAGTGACTGTTCCCCACACATAGCCAACATCGGGCGCCTGGTGGAGGACATGGAAAAC  
AAAATCCGAAGCACGCTGAATGAGATCTACTTTGGAAAAACAAAGGACATCGTCAACGGGCTGAGGTCTG  
TGCAGACGTTTGCAGACAAATCAAAGCAAGAAGCGCTTAAAGACGACCTGGTGGAGGCCTTGAAGAGAAA  
GCAGCAGTGT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR228848 representing NM\_001271406  
 Red=Cloning site Green=Tags(s)

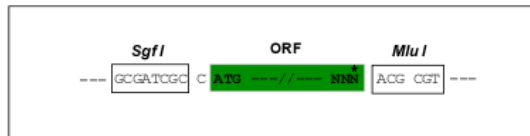
MRRLPPQQIEKNLSDLIDLVPSLCEDLLSSVDQPLKIARDKVVGKDYLLCDYNRDGDSYRSPWSNKYDPP  
 LEDGAMP SARLRKLEVEANNAFDQYRDL YFEGGVSSVYLWDL DHGFAGVILIKKAGDGSKKIKGCWDSIH  
 VVEVQEKSSGRTAHYKLTSTVMLWLQTNKSGSGTMNLGGSLTRQMEKDETVSDCSPHIANIGRLVEDMEN  
 KIRSTLNEIYFGKTKDIVNGLRSVQTFADKSKQEALKNLVEALKRKQQC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001271406

**ORF Size:** 780 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\\_001271406.1](#), [NP\\_001258335.1](#)

**RefSeq Size:** 1641 bp

**RefSeq ORF:** 783 bp

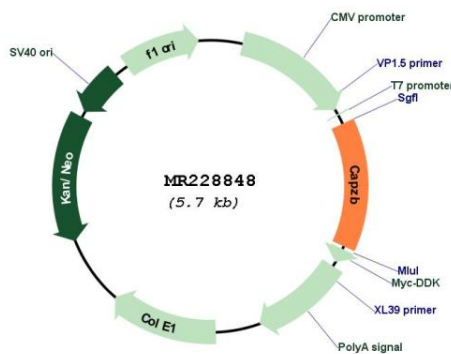
**Locus ID:** 12345

**Cytogenetics:** 4 70.59 cM

**MW:** 29.7 kDa

**Gene Summary:** This gene encodes the beta subunit of a highly conserved filamentous actin capping protein that binds the barbed end of filamentous actin to stabilize it and terminate elongation. Interaction of this protein with the barbed end of the actin filament occurs through binding of the amphipathic helix at the C-terminus to the hydrophobic cleft on the actin molecule. This gene is required for a variety of dynamic actin-mediated processes including organization of lamellipodia and filopodia, growth cone morphology and neurite outgrowth in hippocampal neurons, and asymmetric spindle migration and polar body extrusion during oocyte maturation. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2015]

**Product images:**



Circular map for MR228848