

## Product datasheet for **RC200259**

### **EB2 (MAPRE2) (NM\_014268) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** EB2 (MAPRE2) (NM\_014268) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** EB2  
**Synonyms:** CSCSC2; EB1; EB2; RP1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC200259 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCTGGGCGACCCAAACCTGTCCCAAATGGCGAGAACAACAACGACATCATCCAGGATAATAACG  
 GGACCATCATTCTTTCCGGAAGCACACAGTGCAGCGGGGAGCGTTCCTACAGTTGGGGAATGGCGGTCAA  
 TGTGTATTCTACCTCGATAACCCAAGAGACTATGAGCAGACATGACATCATTGCATGGGTTAATGACATA  
 GTATCTTTAAACTACACAAAAGTGAACAGCTTTGTTCCAGGAGCGGCTATTGCCAATTCATGGACATGC  
 TCTTCCCTGGCTGCATTAGTTTGAAGAAAGTAAAATTTCAAGCAAAGCTGGAACATGAATATATTCACAA  
 TTTTAAACTTCTGCAAGCATCATTAAAGCGAATGAACGTTGATAAGGTAATCCAGTGGAGAAGCTAGTG  
 AAAGGACGTTTCCAGGACAACCTGGATTTTATTCAATGGTTTAAAGAAATCTATGATGCTAACTACGATG  
 GGAAGGAGTATGATCCTGTAGAGGCACGACAAGGGCAAGATGCAATTCCTCCTCCTGACCCTGGTGAACA  
 GATCTTCAACCTGCCAAAAAGTCTCACCATGCAAACCTCCCCACAGCAGGTGCAGCTAAATCAAGTCCA  
 GCAGCTAAACCAGGATCCACACCTTCTCGACCCTCATCAGCCAAAAGGGCTTCTTCCAGTGGCTCAGCAT  
 CCAATCCGATAAAGATTTAGAAACGCAGGTCATACAGCTTAATGAACAGGTACATTCATTAACCTTGC  
 CCTTGAAGGCGTGAAAAGGAAAGGATTTCTACTTTGGGAAGTTGAGAGAGATCGAGCTACTCTGCCAA  
 GAACACGGGCAGGAAAATGATGACCTCGTGCAGAGACTAATGGACATCCTGTATGCTTTCAGAAGAACAGC  
 AGGGCCACACAGAAGAGCCGGAAGCAGAGGAGCAAGCCACGAACAGCAGCCCCCGCAGCAGGAAGAGTA  
 C

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC200259 protein sequence  
Red=Cloning site Green=Tags(s)

MPGPTQLSPNGENNDIIQDNNGTIIPFRKHTVRGERSYSWGMVNVYSTSITQETMSRHDIIAWVNDI  
VSLNYTKVEQLCSGAAYCQFMDMLFPGCISLKKVKFQAKLEHEYIHNFKLLQASFKRMNVDKVIPVEKLV  
KGRFQDNLDFIQWFKKFYDANYDGKEYDPVEARQGQDAIPPPDPGEQIFNLPKSHHANSPTAGAAKSSP  
AAKPGSTPSRPSSAKRASSSGSASKSDKDLETQVIQLNEQVHSLKLALEGVEKERDFYFGKLRREIELLCQ  
EHGQENDDLVRMLDILYASEEHGHTEEPEAEEQAHEQQPPQQEEY

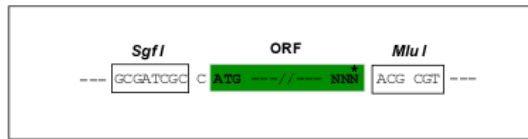
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6381\\_b12.zip](https://cdn.origene.com/chromatograms/mk6381_b12.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\_014268

**ORF Size:** 981 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\\_014268.4](#)

**RefSeq Size:** 4279 bp

**RefSeq ORF:** 984 bp

**Locus ID:** 10982

**UniProt ID:** [Q15555](#)

**Cytogenetics:** 18q12.1-q12.2

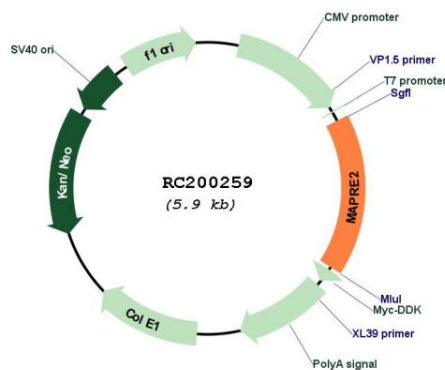
**Domains:** CH, EB1

**Protein Families:** Druggable Genome

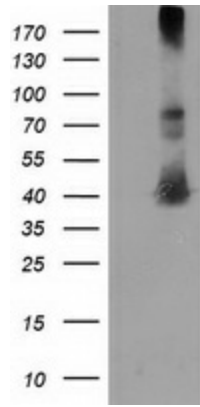
**MW:** 37 kDa

**Gene Summary:** The protein encoded by this gene shares significant homology to the adenomatous polyposis coli (APC) protein-binding EB1 gene family. This protein is a microtubule-associated protein that is necessary for spindle symmetry during mitosis. It is thought to play a role in the tumorigenesis of colorectal cancers and the proliferative control of normal cells. Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq, Jan 2012]

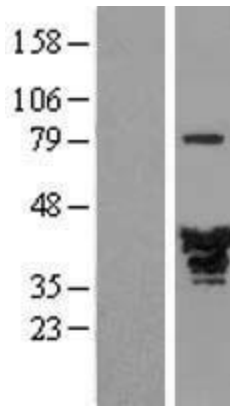
## Product images:



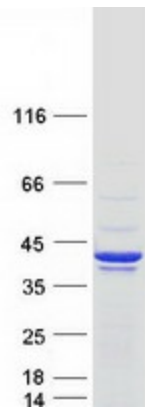
Circular map for RC200259



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MAPRE2 (Cat# RC200259, 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-MAPRE2 (Cat# [TA502928]). Positive lysates [LY415395] (100ug) and [LC415395] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY415395]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200259 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MAPRE2 protein (Cat# [TP300259]). The protein was produced from HEK293T cells transfected with MAPRE2 cDNA clone (Cat# RC200259) using MegaTran 2.0 (Cat# [TT210002]).