

## Product datasheet for **MG225786**

### **Epb41 (NM\_183428) Mouse Tagged ORF Clone**

#### **Product data:**

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids  |
| Product Name:             | Epb41 (NM_183428) Mouse Tagged ORF Clone                   |
| Tag:                      | TurboGFP   |
| Symbol:                   | Epb41  |
| Synonyms:                 | 4.1R; AI415518; D4Ertd442e; Elp-1; Elp1; Epb4.1; mKIAA4056 |
| Mammalian Cell Selection: | Neomycin   |
| Vector:                   | pCMV6-AC-GFP (PS100010)                                    |
| E. coli Selection:        | Ampicillin (100 ug/mL)                                     |



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**ORF Nucleotide Sequence:**

>MG225786 representing NM\_183428  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGACAACAGAGAAGAGTTTAGCGGCTGAAGCTGAGAATTCTCAGCACCAGCAACAGAAGGAAGAAGGAG  
 AGGGAGCCACAACTCAGGCCAACAAAGAACTCAGCTGGAGGAGGCCCTCCAAGCGGCCGACGTGAGGG  
 CAGCGATCAGGGTGAGCAGAAGCTGAAAGCATCCAATGGGGACTCCAACACATGAAGACTTGACCAAG  
 AACAAAGGAACGGACATCAGAAAGCAGAGGCCTGTCAGACTGCTCTCCTCATTCTCAAAAGGCCAAAGT  
 CGCAGGTCTCTGAAGAAGAAGGCAGAGAAGTAGAATCAGAGAAAGAGAAAGGTGAAGGGGTGAGAAGGA  
 GATAGAACTTGAAACAGCCTTGATGAAGACATCATTTTAAAGGCCCCATTGCAGCTCTGAACCTGAG  
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 ACAGAGAGACCCAGATTCTGAAACGAAGGAAGGAGAAGGGATTGAAGAGTGTCTGGAACAGAGGTGAA  
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 ATGCACTGTAAGGTCTCCTTGTGGATGACACGGTCTACGAATGTGTTGTAGAGAAACATGCTAAGGGAC  
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 TGGAGTTGATCTTCAAAAGCAAAGGACTTGGAGGGAGTGGACATTATTCTCGGGCTCTGCTCCAGCGGC  
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 AACGCAGCAGTTCTTCAAGATCCGGCCTGGAGAGCAAGAACATTATGAAAGTACCATCGGCTTCAA  
 GCTCCCCAGTTATCGAGCGGCCAAGAACTATGGAAGGCTGTGTGGAGCATCACACGTTCTTCAGACTC  
 ACCTCTACAGACACCATCCCCAAAAGCAAGTTTCTTGCCTGGGATCCAATTCAGTACAGTGGCCGGA  
 CTCAAGCTCAGACCAGGCAAGCCAGTGCCTGATTGACAGGCCTGCTCCACACTTTGAGCGGACAGCAAG  
 CAAGCGGGCGTCCAGGAGCCTCGATGGAGCAGCAGCTGCTGAGTCCACAGACCGAAGTCTCGGCCACC  
 TCTGCCCCAGCCATTGCTCAGAGTCAGGTACAGAAGGGCCAGGGGCACCTATCAAAAAACACCAAAGG  
 AAGCTGTGAAGGTTGAAGAGAAGCGGGGAGAAGAGCCGGCTGAGCCCGCTGAGCCGGAGCCACAGAAGC  
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 CGCTTATCTACACTCACCTTCCGGACTTTAACATCAACGGGCAAGTCCCTACTGGAGATGGACCTC  
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 AGATGTCCCTATTGTCCACTGAGACCAAGACCATCACCTATGAAGCTGCCAGACTGAGGACAGCAAT  
 GGGGACTTAGACCCTGGAGTCTTGTGACAGCCAGACCATCACATCCGAGACCACAAGTGTACAACCA  
 CGACACAGATTACCAAGACTGTAAGGTTGGGATTTCTGAGACCCGGATCGAGAAGAGAATTGTGATCAC  
 AGGAGATGCCGATATCGACCATGATCAGGTCTTGTACAAGCCATCAAGGAAGCCAAGGAGCAGCATCCA  
 GACATGTCAGTGACCAAGGTGGTCGTCACCAGGAGACAGAGATCTCTGAGGAG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >MG225786 representing NM\_183428  
 Red=Cloning site Green=Tags(s)

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MTTEKSLAAEAENSQHQQQKEEGEGATNSGQQETQLEEASQAAAAEGSDQGEQKLKASNGDTPTHEDLTK
NKERTSESRLSRLSSFLKRPKSQVSEEEGREVESEKEKGEGGQKEIELGNSLDEDIILKAPIAAPEPE
LKTDPPLDLHSLSSIETQPAQEEHREDPDSETKEGEGIEECSGTEVKEDPESRAEREPEASQKPVRRHRN
MHCKVSLLDLDTVYECVVEKHAKGQDLLKRVCEHLNLEEDYFGLALWDSATSKTWLDSAKEIKKQVRGVP
WNFTFNVKFPYPPDPAQLTEDITRYYLCLQLRQDIVAGRLPCSFATLALLGSYTIQSELGDYDPELHGMDY
VSDFKLAPNQTKLEEKVMELEKSYRSMTPAQADLEFLENAKKLSMYGVDLHKAKDLEGVDIILGVCSSG
LLVYKDKLRINRFPWPKVLKISYKRSSFYIKIRPGEQEHYESTIGFKLPSYRAAKKLWKVCVEHHTFFRL
TSTDTIPKSKFLALGSKFRYSGRTQAQTRQASALIDRPAPHFERTASKRASRLDGAEEESTDRSPRPT
SAPAIASQVTEGPGAPIKKTPEAVKVEEKRGEEPAEPAEPEPEAWKVEKTHTEVTVPVPTSNQDQTKL
AGKGEDLIRMRKKRERLDGENIYIRHSNLMLEDLKSQEEIKKHHASISELKNFMESVPEPRPSEWDK
RLSTHSPFRTLNINGQVPTGDGPPLVKQTQVTISDTANAVKSEIPTKDVPVHTETKTITIEAAQTEDSN
GDLDPGVLLTAQTITSETTSSTTTTQITKTVKGGISETRIEKRIVITGDADIDHDQVLVQAIKEAKEQHP
DMSVTKVVVHQETEISEE
  
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



ACCN: NM\_183428

ORF Size: 2574 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\\_183428.3](#), [NP\\_906273.3](#)

**RefSeq Size:** 6565 bp

**RefSeq ORF:** 2577 bp

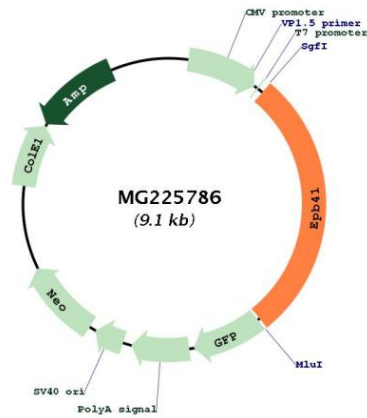
**Locus ID:** 269587

**UniProt ID:** [P48193](#)

**Cytogenetics:** 4 64.54 cM

**Gene Summary:** Protein 4.1 is a major structural element of the erythrocyte membrane skeleton. It plays a key role in regulating membrane physical properties of mechanical stability and deformability by stabilizing spectrin-actin interaction. Recruits DLG1 to membranes. Required for dynein-dynactin complex and NUMA1 recruitment at the mitotic cell cortex during anaphase. [UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MG225786