

## Product datasheet for **RG228487**

### EPB41 (NM\_001166007) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	EPB41 (NM_001166007) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	EPB41
Synonyms:	4.1R; EL1; HE
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG228487 representing NM\_001166007  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGCACTGCAAGTTTCTTTGTTGGATGACACAGTTTATGAATGTGTTGTGGAGAAACATGCTAAGGGAC  
 AAGATTTGCTTAAACGAGTATGTGAGCATCTCAATCTTTTGAAGAAGACTATTTTGGTCTAGCCATTTG  
 GGATAACGCAACCTCTAAGACATGGCTGGATTCCGCCAAAGAAATAAAAAGCAGTTTCGTGGTGTCCCT  
 TGGAAATTTACATTTAATGTAAGTTTTATCCACCTGACCCAGCACAGTTAACAGAAGACATAACAAGAT  
 ATTATTTATGTCTTCAGCTTCGGCAGGACATAGTTGCAGGACGTCTGCCCTGTTCCCTTGAACCTTAGC  
 ATTATTAGTTCTTACACCATCCAGTCTGAACTGGGAGACTACGACCCAGAACTCCATGGCGTGGATTAT  
 GTTAGTGATTTAACTGGCCCCGAATCAGACCAAGGAAGTTGAAGAGAAGGTCATGGAAGTGCATAAGT  
 CATACAGTCCATGACTCCAGCTCAGGCTGACTTGGAGTTTCTTGAGAATGCCAAAAAGTTGTCTATGTA  
 TGGAGTTGATCTTATAAAGCAAAGGACTTGAAGGAGTAGATATCATCCTAGGTGTCTGCTCTAGTGGC  
 CTCTGGTTTACAAAGATAAGCTGAGAATTAACCGCTTCCCTTGGCCCAAAGTGCTGAAGATTTCTTATA  
 AACGTAGTAGCTTTTTCATCAAGATTCGGCTGGAGAGCAAGAGCAGTATGAAAGTACCATCGGATTCAA  
 ACTTCCAGTTACCGAGCAGCTAAGAAATTATGAAAAGTCTGTGTAGAACATCACACGTTTTTCAGATTG  
 ACATCTACAGACACCATTTCCCAAAGCAAATTTCTTGGCTAGGATCCAAATTTTCGATACAGTGGCCGGA  
 CTCAAGCTCAGACCAGGCAAGCTAGTGCTCTAATTGACAGGCCTGCCACACTTCGAGCGTACAGCAAG  
 TAAACGGGCGTCCCGAGCCTCGATGGAGCAGCAGCTGTGATTCCGGCAGACCGAAGTCTCGGCCCACT  
 TCTGCACCTGCCATTACTCAGGGTCAGGTTGCAGAAGTGGCGTCTAGATGCCTCTGCTAAAAAACAG  
 TGGTCCCTAAAGCACAGAAGAAACAGTGAAGGCTGAAGTGAAGAAAGGAAGACGAGCCACTGAGCAAGC  
 TGAGCCAGAGCCACAGAAGCATGGAAGGATTTAGACAAGAGTCAAGAGGAGATCAAAAAACATCATGCC  
 AGCATCAGTGAGCTGAAAAGAAGTTCATGGAGTCTGTACCAGAACCACGGCCTAGTGAATGGGATAAAC  
 GCTTATCCACTCACTCACCTTCCGAACTTAAACATCAATGGGCAAATCCCCACAGGAGAAGGACCTCC  
 CCTGGTGAAGACACAACTGTCACCATCTCAGATAATGCCAATGCTGTGAAAAGTGAATCCCAACCAAA  
 GACGTCCCTATTGTCCACTGAGACCAAGACCATCACTTATGAGGCTGCCAGACTGACGACAACAGTG  
 GAGACTGGACCCAGGAGTCTTGTGACAGCTCAAACATCACATCTGAGACCCCAAGCAGCACCACCAC  
 AACTCAAATTACCAAGACTGTAAAAGTGGGATTTAGAGACACGATTGAAAAGAGAATTGTGATCACA  
 GGAGATGCTGATATTGACCATGATCAGGTCCTTGTACAAGCCATCAAGGAGGCAAAGGAGCAGCACCAG  
 ACATGTCAGTGACCAAGGTGGTCTCCACCAGGAGACCGAGATTGCTGATGAG

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG228487 representing NM\_001166007  
 Red=Cloning site Green=Tags(s)

MHCKVSLDDTVYECVVEKHAKGQDLLKRVCEHLNLEEDYFGLAIWDNATSKTWLDSAKEIKKQVRGVP  
 WNFTFNVKFPDPDPAQLTEDITRYYLCLQLRQDIVAGRLPCSFATLALLGSYTIQSELGDYDPELHGVDY  
 VSDFKLAPNQTKLEEKVMEHLKSYRSMTPAQADLEFLENAKKLSMYGVDLHKAKDLEGVDIILGVCSSG  
 LLVYKDKLRINRFPWPKVLKISYKRSSFYIKIRPGEQEYESTIGFKLPSYRAAKKLWKVCVEHHTFFRL  
 TSTDITPKSKFLALGSKFRYSGRTQAQTRQASALIDRPAPHFERTASKRASRSLDAAAVIDSADRSPRPT  
 SAPAITQGQVAEGGVLDSAKKTVVPAQKQKTVKAEVKKKEPPEQAEPPEPEAWKDLKDSQEEIKKHHA  
 SISELKNFMESVPEPRPSEWDKRLSTHSPFRTLNINGQIPTGEGPPLVKTQTVTISDNANAVKSEIPTK  
 DVPIVHTEKTKITYEAAQTDDNSGDLDPGVLLTAQTITSETPSSTTTTQITKTVKGGISETRIEKRIVIT  
 GDADIDHDQVLVQAIKEAKEQHPDMSVTKVVVHQETEIADE

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_001166007

**ORF Size:** 1803 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\\_001166007.2](#)

**RefSeq Size:** 5782 bp

**RefSeq ORF:** 1806 bp

**Locus ID:** 2035

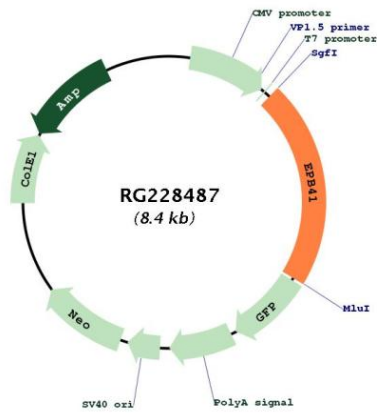
**Cytogenetics:** 1p35.3

**Protein Families:** Druggable Genome

**Protein Pathways:** Tight junction

**Gene Summary:** The protein encoded by this gene, together with spectrin and actin, constitute the red cell membrane cytoskeletal network. This complex plays a critical role in erythrocyte shape and deformability. Mutations in this gene are associated with type 1 elliptocytosis (EL1). Alternatively spliced transcript variants encoding different isoforms have been described for this gene.[provided by RefSeq, Oct 2009]

**Product images:**



Circular map for RG228487