

## Product datasheet

# Recombinant Human EPB41 protein ab114654

1 Image

### Overview

<b>Product name</b>	Recombinant Human EPB41 protein
<b>Protein length</b>	Full length protein

### Description

<b>Nature</b>	Recombinant
<b>Source</b>	Wheat germ

### Amino Acid Sequence

<b>Accession</b>	<a href="#">P11171</a>
<b>Species</b>	Human
<b>Sequence</b>	<p>MTTEKSLVTEAENSQHQQKEEGEEAINSGQQEPQQEESCQTAAEGDNWCE            QKLKASNGDTPHEDLTKNKERTSESRGLSRLFSSFLKRPKSQVSEEEGK            EVESDKEKGEGGQKEIEFGTSLDEEILKAPIAAPEPELKTDPISLDLHSL            SSAETQPAQEELREDPDFEIKEGEGLEECISKIEVKEESPQSKAETELKAS            QKPIRKHRNMHCKVSLDDTVYECVVEKHAKGQDLLKRVCEHLNLLLEEDY            FGLAIFWDNATSKTWLDSAKEIKKQVRGVPWNFTFNVKFYPPDPAQLTEDI            TRYLLCLQLRQDIVAGRLPCSFATLALLGSYTIQSELGDYDPELHGVDYV            SDFKLAPNQTKLEEEKVMELHKSYSRSMTPAQADLEFLENAKKLSMYGVDL            HKAKDLEGVDIILGVCSSGLLVYKDKLRINRFPWPKVLKISYKRSSFFIK            IRPGEQEQYESTIGFKLPSYRAAKKLWKCVEHHTFFRLTSTDITPKSKF            LALGSKFRYSGRTQAQTRQASALIDRPAPHFERTASKRASRSLDGAAAVD            SADRSPRPTSAPAITQGQVAEGGVLDASAKKTVVPAQKQKTVKAEVKKED            EPPEQAEPEPTAWKVEKTHIEVTVPTSNGDQTQKKRERLDGENMYRHS            NLMLLEDLDSQEEIKKHASISELKKNFMESVPEPRPSEWDKRLSTHSPF            RTLNINGQIPTGEGVSTLST</p>
<b>Molecular weight</b>	105 kDa including tags
<b>Amino acids</b>	1 to 720

### Specifications

Our [Abpromise guarantee](#) covers the use of **ab114654** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<b>Applications</b>	ELISA
---------------------	-------

SDS-PAGE

Western blot

#### Additional notes

Protein concentration is above or equal to 0.05 mg/ml.  
Best used within three months from the date of receipt.

#### Preparation and Storage

---

##### Stability and Storage

Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.  
pH: 8.00  
Constituents: 0.3% Glutathione, 0.79% Tris HCl

#### General Info

---

##### Function

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.

##### Involvement in disease

Defects in EPB41 are the cause of elliptocytosis type 1 (EL1) [MIM:611804]. EL1 is a Rhesus-linked form of hereditary elliptocytosis, a genetically heterogeneous, autosomal dominant, hematologic disorder. It is characterized by variable hemolytic anemia and elliptical or oval red cell shape.

Defects in EPB41 are a cause of hereditary pyropoikilocytosis (HPP) [MIM:266140]. HPP is an autosomal recessive hematologic disorder characterized by hemolytic anemia, microspherocytosis, poikilocytosis, and an unusual thermal sensitivity of red cells.

##### Sequence similarities

Contains 1 FERM domain.

##### Post-translational modifications

Phosphorylated at multiple sites by different protein kinases and each phosphorylation event selectively modulates the protein's functions.

Phosphorylation on Tyr-660 reduces the ability of 4.1 to promote the assembly of the spectrin/actin/4.1 ternary complex.

O-glycosylated; contains N-acetylglucosamine side chains in the C-terminal domain.

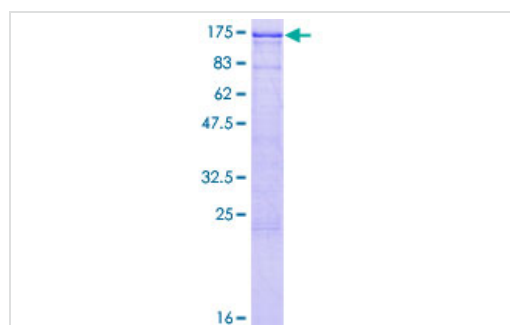
##### Cellular localization

Cytoplasm > cytoskeleton. Cytoplasm > cell cortex. Nucleus.

---

#### Images

---



12.5% SDS-PAGE showing ab114654 at approximately 105.27kDa stained with Coomassie Blue.

SDS-PAGE - EPB41 protein (ab114654)

### **Our Abpromise to you: Quality guaranteed and expert technical support**

---

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
  
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <http://www.abcam.com/abpromise> or contact our technical team.

### **Terms and conditions**

---

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors