

## Product datasheet

# Recombinant Human EPB41 protein ab114654

1 Image

### Overview

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

### Description

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**Nature** Recombinant

**Source** Wheat germ

#### Amino Acid Sequence

**Accession** [P11171](#)

**Species** Human

**Sequence** MTTEKSLVTEAENSQHQQKEEGEEA INSGQQEPQQEESCQTAAEGDNWCE  
 QKLKASNGDTPTHEDLTKNKERTSESRGLSRLFSSFLKRPKSQVSEEEGK  
 EVESDKEKGGGQKEIEFGTSLDEE IILKAPIAAPEPELKTDP SLDLHSL  
 SSAETQPAQEELREDPDFEIKEGEGLEEC SKIEVKEESPQSKAETELKAS  
 QKPIRKHNRMHCKVSLDDTVYECVVEKHAKGQDLLKRVCEHLNLL EEDY  
 FGLAIWDNATSKTWLDSAKEIKKQVRGVPWNFTFNVKFYPPDPAQLTEDI  
 TRYLLCLQLRQDIVAGRLPCSFATLALLGSYTIQSELGDYDPELHGVDYV  
 SDFKLAPNQTK ELEEKVMELHKSYSRSMTPAQADLEFLEN AKKLSMYGVDL  
 HKAKDLEGVDI IILGVCSSGLLVYKDKLRINRFPWPVKVKISYKRSSFFIK  
 IRPGEQEYESTIGFKLPSYRAAKKLWKCVEHHTFFRLTSTDTIPKSKF  
 LALGSKFRYSGR TQAQTRQASALIDRPAPHFERTASKRASRLDGAAAVD  
 SADRSPRPTSAPAITQGQVAEGGVLDA SAKKTVVPKAQKETVKA EVKED  
 EPPEQAEPEPTEAWKVEKTHIEVTVPT SNGDQTQKKRERLDGENIYIRHS  
 NLMLLEDLKSQEEIKKHHASISELKKNFMESVPEPRPSEWDKRLSTHSPF  
 RTLNINGQIPTGEGVSTLST

**Molecular weight** 105 kDa including tags

**Amino acids** 1 to 720

### Specifications

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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

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##### 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

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##### 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.

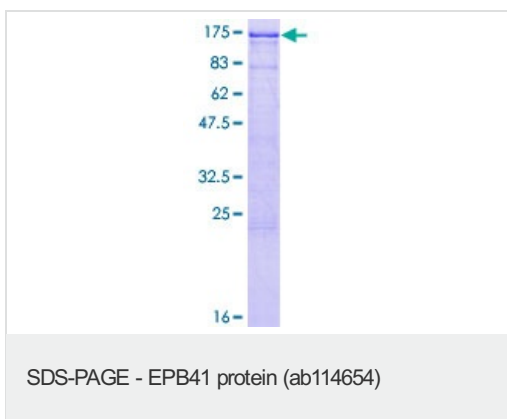
##### Cellular localization

Cytoplasm > cytoskeleton. Cytoplasm > cell cortex. Nucleus.

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#### Recombinant Human EPB41 protein images

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

**Please note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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