

# Polyclonal Anti-EPB41L1 Antibody

Catalog Number: PA2266

## Description

<b>Gene Name</b>	erythrocyte membrane protein band 4.1-like 1
<b>Recommended Protein Name</b>	Band 4.1-like protein 1
<b>Lot No.</b>	0221412c016626
<b>Size</b>	100µg/vial
<b>Form</b>	lyophilized
<b>Ig type</b>	Rabbit IgG
<b>Specificity</b>	No cross reactivity with other proteins.
<b>Purification</b>	Immunogen affinity purified.
<b>Species</b>	<b>Reacts with:</b> mouse, rat <b>Predicted to work with:</b> human
<b>Immunogen</b>	A synthetic peptide corresponding to a sequence at the C-terminus of human EPB41L1(585-604aa QDQERDTVFLKDNHLAIERK), different from the related mouse and rat sequences by one amino acid.
<b>Contents</b>	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg Thimerosal, 0.05mg NaN <sub>3</sub> .

## Application

	Concentration	Tested Species	Predicted Species	Antigen Retrieval
Western blot	0.1-0.5µg/ml	Ms, Rat	Hu	-

**Tested Species:** In-house tested species with positive results.

**Predicted Species:** Species predicted to be fit for the product based on sequence similarities.

*Other applications have not been tested.*

*Optimal dilutions should be determined by end users.*

## Preparation and storage

**Reconstitution:** 0.2ml of distilled water will yield a concentration of 500µg/ml.

**Storage:** At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time.

Avoid repeated freezing and thawing.

## Relevant detection systems

Boster provides a series of assays reacted with primary antibodies. Antibody can be supported by chemiluminescence kit EK1002 in WB.

## Background

Band 4.1-like protein 1 is a protein that in humans is encoded by the EPB41L1 gene. This gene is mapped to 20q11.23. It is found that a heterozygous missense mutation in the EPB41L1 gene causing nonsyndromic intellectual disability. This gene may function to confer stability and plasticity to neuronal membrane via multiple interactions, including the spectrin-actin-based cytoskeleton, integral membrane channels and membrane-associated guanylate kinases. EPB41L1 has been shown to interact with ITPR1, Dopamine receptor D2, Dopamine receptor D3, CENTG1 and Nuclear mitotic apparatus protein 1.

## Reference

1. Binda, Alicia V; Kabbani Nadine, Lin Ridwan, Levenson Robert (September 2002). "D2 and D3 dopamine receptor cell surface localization mediated by interaction with protein 4.1N". *Mol. Pharmacol. (United States)* 62 (3): 507–13.
2. Hamdan, F. F., Gauthier, J., Araki, Y., Lin, D.-T., Yoshizawa, Y., Higashi, K., Park, A.-R., Spiegelman, D., Dobrzyniecka, S., Piton, A., Tomitori, H., Daoud, H., and 22 others. Excess of de novo deleterious mutations in genes associated with glutamatergic systems in nonsyndromic intellectual disability. *Am. J. Hum. Genet.* 88: 306-316, 2011. Note: Erratum: *Am. J. Hum. Genet.* 88: 516 only, 2011.
3. Kim AC, Van Huffel C, Lutchman M, Chishti AH (June 1998). "Radiation hybrid mapping of EPB41L1, a novel protein 4.1 homologue, to human chromosome 20q11.2-q12". *Genomics* 49 (1): 165–6.