Datasheet for ABIN968676

anti-EPB41L1 antibody (AA 510-626)

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Overview

Quantity:	50 µg
Target:	EPB41L1
Binding Specificity:	AA 510-626
Reactivity:	Human, Mouse, Rat, Chicken, Dog
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This EPB41L1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Mouse 4.1N aa. 510-626
Clone:	4-4-1N
Isotype:	IgG1
Cross-Reactivity:	Rat (Rattus), Human, Chicken, Dog (Canine)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Source of all serum proteins is from USDA inspected abattoirs located in the United States. 4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

Product Details

	chromatography.

Target Details

Target:	EPB41L1
Alternative Name:	4.1N (EPB41L1 Products)
Background:	The erythrocyte membrane cytoskeletal protein, 4.1R, is an important structural element of red blood cells. It contains a spectrin-actin-binding domain (SABD) that facilitates spectrin interaction with F-actin and a membrane-binding domain (MBD) that links the cytoskeleton to the plasma membrane via interactions with Band 3 protein. Two homologues of 4.1R, 4.1G and 4.1N, are expressed throughout the body and in neurons, respectively. These 4.1 proteins contain Ca2+-dependent (CD-CaM) and Ca2+-independent calmodulin (CI-CaM) binding sites within the MBD domain, a centrally located SABD, and a conserved C-terminal domain (CTD). 4.1N expression is high throughout the adult brain and lower in heart, kidney, and pancreas. In neurons, 4.1N protein co-localizes with PSD-95 and GluR1 at sites of synaptic contacts and the CTD of 4.1N allows binding to the C-terminus of GluR1. In addition, 4.1N interacts with the PI3-Kinase enhancer (PIKE) protein and translocates to the nucleus along with PIKE in response to NGF treatment. Thus, 4.1N is a neuronal membrane cytoskeletal protein that may be involved with localizaton of proteins such as neurotransmitter receptors and signaling molecules. Predominant isoforms of 4.1 proteins have been reported to be observable between 30-210 kD due to complex alternative splicing events. 4.1N has been reported to be observable in a range of 100-135 kD in neuronal populations. This antibody is routinely tested by western blot analysis.
Molecular Weight:	116 & 100 kDa

Application Details

Comment:	Related Products: ABIN968545, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.

Handling

Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.

Publications

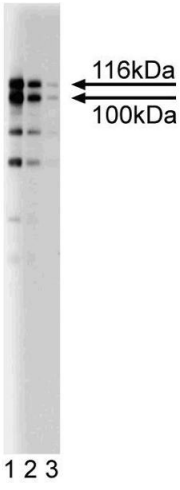
Product cited in:

Ye, Hurt, Wu, Fang, Luo, Hong, Blackshaw, Ferris, Snyder: "Pike. A nuclear gtpase that enhances PI3kinase activity and is regulated by protein 4.1N." in: **Cell**, Vol. 103, Issue 6, pp. 919-30, (2001) (PubMed).

Shen, Liang, Walensky, Huganir: "Regulation of AMPA receptor GluR1 subunit surface expression by a 4. 1N-linked actin cytoskeletal association." in: **The Journal of neuroscience : the official journal of the Society for Neuroscience**, Vol. 20, Issue 21, pp. 7932-40, (2000) (PubMed).

Walensky, Blackshaw, Liao, Watkins, Weier, Parra, Huganir, Conboy, Mohandas, Snyder: "A novel neuron-enriched homolog of the erythrocyte membrane cytoskeletal protein 4.1." in: **The Journal of neuroscience : the official journal of the Society for Neuroscience**, Vol. 19, Issue 15, pp. 6457-67, (1999) (PubMed).

Images



Western Blotting

Image 1. Western blot analysis of 4.1N on a rat cerebrum lysate. Lane 1: 1:5000, lane 2: 1:10,000, lane 3: 1:20,000 dilution of the mouse anti-4.1N antibody.