Datasheet for ABIN968736

anti-KIF1A antibody (AA 902-1015)

1 Image | 3 Publications

Go to Product page

Overview

Quantity:	50 µg
Target:	KIF1A
Binding Specificity:	AA 902-1015
Reactivity:	Mouse, Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This KIF1A antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Mouse KIF1A aa. 902-1015
Clone:	16-KIF1A
Isotype:	IgG1
Cross-Reactivity:	Rat (Rattus)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. 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. 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

Product Details

	chromatography.

Target Details

Target:	KIF1A
Alternative Name:	KIF1A (KIF1A Products)
Background:	The ability of the kinesin superfamily of motor proteins to hydrolyze ATP as they move progressively along microtubules is important for organelle transport and cell division. Kinesins are grouped according to the location of the motor domain in the N-terminal, middle, or C-terminal region of the protein. A family of N-terminal motor domain kinesin proteins includes KIF1A/1B, KIF3A/3B, KRP85/95, and Klp68d/64. KIF1A and KIF1B are 93% homologous in their N-terminal motor domains, however KIF1A contains a C-terminal PH domain. KIF1A and KIF1B are expressed in neurons where KIF1A is involved in fast anterograde axon transport of synaptic vesicles, and KIF1B is involved in anterograde axon transport of mitochondria. KIF1A associates with organelles that contain synaptotagmin, synaptophysin, and Rab3A. Disruption of the KIF1A gene in mice causes decreases in synaptic vesicle density, neuronal degeneration, and deficits in motor and sensory function. Thus, KIF1A is a critical brain motor protein involved with axonal transport of synaptic vesicle precursors. This antibody is routinely tested by western blot analysis.
Molecular Weight:	200 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.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling

Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.

Publications

Product cited in:

Bloom: "The UNC-104/KIF1 family of kinesins." in: **Current opinion in cell biology**, Vol. 13, Issue 1, pp. 36-40, (2001) (PubMed).

Yonekawa, Harada, Okada, Funakoshi, Kanai, Takei, Terada, Noda, Hirokawa: "Defect in synaptic vesicle precursor transport and neuronal cell death in KIF1A motor protein-deficient mice." in: **The Journal of cell biology**, Vol. 141, Issue 2, pp. 431-41, (1998) (PubMed).

Okada, Yamazaki, Sekine-Aizawa, Hirokawa: "The neuron-specific kinesin superfamily protein KIF1A is a unique monomeric motor for anterograde axonal transport of synaptic vesicle precursors." in: **Cell**, Vol. 81, Issue 5, pp. 769-80, (1995) (PubMed).

Images

Western Blotting

Image 1. Western blot of analysis of KIF1A on a rat embryonic (E21) cerebrum lysate. Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of the mouse anti-KIF1A antibody.