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Mouse Abl2 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21528b

Product Information

Application	WB, E
Primary Accession	Q4JIM5
Reactivity	Human, Mouse
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB50829
Calculated MW	128196

Additional Information

Other Names	Abelson tyrosine-protein kinase 2, Abelson murine leukemia viral oncogene homolog 2, Abelson-related gene protein, Tyrosine-protein kinase ARG, Abl2 {ECO:0000312|EMBL:AAY860391, ECO:0000312|MGI:MGI:87860}
Target/Specificity	This Mouse Abl2 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 1011-1044 amino acids from the C-terminal region of Mouse Abl2.
Dilution	WB~~1:2000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Mouse Abl2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Abl2 {ECO:0000312|EMBL:AAY86039.1, ECO:0000312|MGI:MGI:87860}
Function	Non-receptor tyrosine-protein kinase that plays an ABL1- overlapping role in key processes linked to cell growth and survival such as cytoskeleton remodeling in response to extracellular stimuli, cell motility and adhesion, receptor endocytosis, autophagy, DNA damage response and apoptosis. Coordinates actin remodeling through tyrosine phosphorylation of proteins controlling cytoskeleton dynamics like MYH10 (involved in movement); CTTN

	(involved in signaling); or TUBA1 and TUBB (microtubule subunits). Binds directly F-actin and regulates actin cytoskeletal structure through its F-actin-bundling activity. Involved in the regulation of cell adhesion and motility through phosphorylation of key regulators of these processes such as CRK, CRKL or DOK1. Required for adhesion-dependent phosphorylation of ARHGAP35 which promotes its association with RASA1, resulting in recruitment of ARHGAP35 to the cell periphery where it inhibits RHO. Phosphorylates multiple receptor tyrosine kinases like PDGFRB and other substrates which are involved in endocytosis regulation such as RIN1. In brain, may regulate neurotransmission by phosphorylating proteins at the synapse. Finally, functions as its own regulator through autocatalytic activity as well as through phosphorylation of its inhibitor, ABI1. Positively regulates chemokine-mediated T-cell migration, polarization, and homing to lymph nodes and immune-challenged tissues, potentially via activation of NEDD9/HEF1 and RAP1 (PubMed:22810897).
Cellular Location	Cytoplasm, cytoskeleton
Tissue Location	Most abundant in adult mouse brain, especially in synapse-rich regions.

Background

Non-receptor tyrosine-protein kinase that plays an ABL1- overlapping role in key processes linked to cell growth and survival such as cytoskeleton remodeling in response to extracellular stimuli, cell motility and adhesion, receptor endocytosis, autophagy, DNA damage response and apoptosis. Coordinates actin remodeling through tyrosine phosphorylation of proteins controlling cytoskeleton dynamics like MYH10 (involved in movement); CTTN (involved in signaling); or TUBA1 and TUBB (microtubule subunits). Binds directly F-actin and regulates actin cytoskeletal structure through its F-actin-bundling activity. Involved in the regulation of cell adhesion and motility through phosphorylation of key regulators of these processes such as CRK, CRKL or DOK1. Required for adhesion-dependent phosphorylation of ARHGAP35 which promotes its association with RASA1, resulting in recruitment of ARHGAP35 to the cell periphery where it inhibits RHO. Phosphorylates multiple receptor tyrosine kinases like PDGFRB and other substrates which are involved in endocytosis regulation such as RIN1. In brain, may regulate neurotransmission by phosphorylating proteins at the synapse. Finally, functions as its own regulator through autocatalytic activity as well as through phosphorylation of its inhibitor, ABI1.

References

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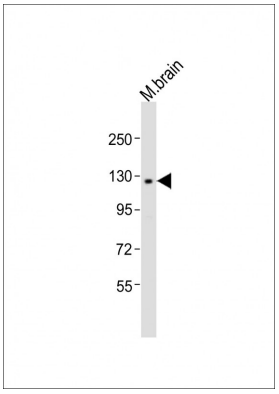
Tanis K.Q.,et al.Mol. Cell. Biol. 23:3884-3896(2003).
Koleske A.J.,et al.Neuron 21:1259-1272(1998).
Kain K.H.,et al.J. Biol. Chem. 276:16185-16192(2001).
Woodring P.J.,et al.J. Cell Sci. 116:2613-2626(2003).

Images

Anti-Abl2 Antibody (C-term)at 1:2000 dilution + mouse brain lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 128 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



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