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Mouse Abl2 Blocking Peptide (C-term)

Synthetic peptide
Catalog # BP21528b

Specification

Mouse Abl2 Blocking Peptide (C-term) - Product Information

Primary Accession Q4JIM5

Mouse Abl2 Blocking Peptide (C-term) - 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
The synthetic peptide sequence is selected from aa 1011-1024 of HUMAN Abl2

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Mouse Abl2 Blocking Peptide (C-term) - 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.

Mouse Abl2 Blocking Peptide (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

Mouse Abl2 Blocking Peptide (C-term) - Images

Mouse Abl2 Blocking Peptide (C-term) - Background

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Wang Y.,et al.Proc. Natl. Acad. Sci. U.S.A. 98:14865-14870(2001).
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).