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ABL2 Antibody (R432)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3018b

Product Information

Application	WB, E
Primary Accession	P42684
Other Accession	Q4JIM5, P00520, P00519
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB7532
Calculated MW	128343
Antigen Region	417-446

Additional Information

Gene ID	27
Other Names	Abelson tyrosine-protein kinase 2, Abelson murine leukemia viral oncogene homolog 2, Abelson-related gene protein, Tyrosine-protein kinase ARG, ABL2, ABLL, ARG
Target/Specificity	This ABL2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 417-446 amino acids from human ABL2.
Dilution	WB~~1:1000 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	ABL2 Antibody (R432) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ABL2
Synonyms	ABLL, ARG

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 and receptor endocytosis. 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, DOK1 or ARHGAP35. Adhesion-dependent phosphorylation of ARHGAP35 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. ABL2 also acts as a regulator of multiple pathological signaling cascades during infection. Pathogens can highjack ABL2 kinase signaling to reorganize the host actin cytoskeleton for multiple purposes, like facilitating intracellular movement and host cell exit. 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 (By similarity).
Cellular Location	Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:Q4JIM5}
Tissue Location	Widely expressed.

Background

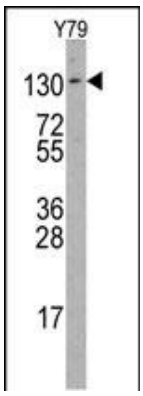
ABL2 is a cytoplasmic tyrosine kinase which is closely related to but distinct from ABL1. The similarity of the proteins includes the tyrosine kinase domains and extends amino-terminal to include the SH2 and SH3 domains. ABL2 is expressed in both normal and tumor cells. The ABL2 gene product is expressed as two variants bearing different amino termini, both approximately 12-kb in length. The peptide used to generate this antibody is 100% conserved between ABL2 and ABL1.

References

Cao, C., et al., Biochemistry 42(35):10348-10353 (2003).
Cao, C., et al., J. Biol. Chem. 278(32):29667-29675 (2003).
Kruh, G.D., et al., Proc. Natl. Acad. Sci. U.S.A. 87(15):5802-5806 (1990).
Kruh, G.D., et al., Science 234(4783):1545-1548 (1986).
Bianchi, C., et al., FEBS Lett. 527 (1-3), 216-222 (2002).

Images

ABL2 non P-specific Pab (Cat.#AP3018b) western blot analysis in Y79 cell line lysates (35ug/lane). ABL2(arrow) was detected using the purified Pab.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.