

# ABL2 Antibody

Purified Mouse Monoclonal Antibody

Catalog # AO1349a

## Product Information

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<b>Application</b>	WB, ICC, E
<b>Primary Accession</b>	<a href="#">P42684</a>
<b>Reactivity</b>	Human, Mouse
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Clone Names</b>	1H1
<b>Isotype</b>	IgG1
<b>Calculated MW</b>	128343
<b>Description</b>	ABL2 (ARG, Abl-related gene), together with c-Abl, forms the Abl family of mammalian non-receptor tyrosine kinases. ABL2 and c-Abl share 89%, 90 and 93% identity in their SH3, SH2 and tyrosine domain, but only 29% identity in the carboxy-terminal half. The human c-Abl and ABL2 genes are expressed ubiquitously. ABL2 had been detected predominantly in the cytoplasm, whereas c-Abl shows both cytoplasmic and nuclear localization. c-Abl is involved in two different chromosomal translocations present in human leukemias, which generate Bcr-Abl and TEL-Abl. Recently, TEL-ARG fusion transcripts have also been identified in acute myeloid leukemias (AML). The Abl family kinases may also interact with receptor tyrosine signaling pathways and regulate cellular function such as cell cycle progression, gene transcription and organization of the actin cytoskeletons in neurons.
<b>Immunogen</b>	Purified recombinant fragment of ABL2 expressed in E. Coli.
<b>Formulation</b>	Ascitic fluid containing 0.03% sodium azide.

## Additional Information

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<b>Gene ID</b>	27
<b>Other Names</b>	Abelson tyrosine-protein kinase 2, 2.7.10.2, Abelson murine leukemia viral oncogene homolog 2, Abelson-related gene protein, Tyrosine-protein kinase ARG, ABL2, ABLL, ARG
<b>Dilution</b>	WB~~1/500 - 1/2000 ICC~~N/A E~~N/A
<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
<b>Precautions</b>	ABL2 Antibody 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 hijack 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.

## References

1. Yoshimi I, Takashi I, Tsuneyuki O, et al. Blood. 2000; 95(6): 2126-2131. 2. Scheijen, B. and Griffin, J.D. Oncogene. 2002; 21 : 3314-33.

## Images

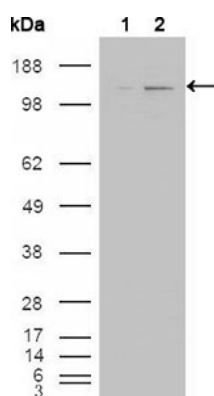
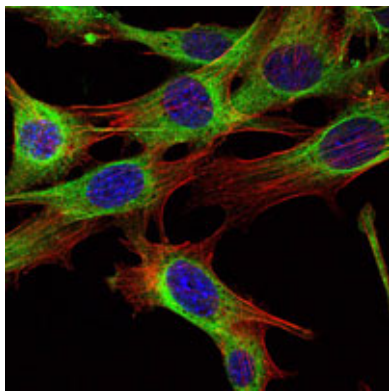


Figure 1: Western blot analysis using ABL2 mouse mAb against HEK293T cells transfected with the pCMV6-ENTRY control (1) and pCMV6-ENTRY ABL2 cDNA (2).

Figure 2: Immunofluorescence analysis of NIH/3T3 cells using ABL2 mouse mAb (green). Blue: DRAQ5 fluorescent



DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

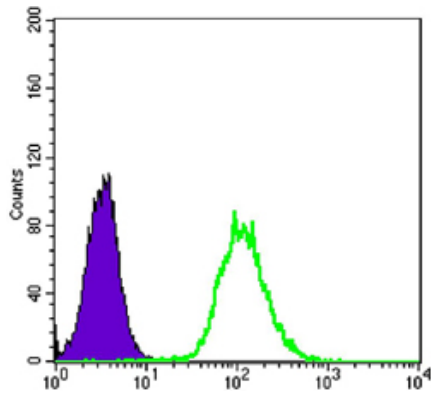


Figure 2: Flow cytometric analysis of HeLa cells using anti-CK7 mAb (green) and negative control (purple).

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