

ABL2 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1349a**Specification**

ABL2 Antibody - Product Information

Application	WB, ICC, E
Primary Accession	P42684
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	128kDa KDa

Description

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.

Immunogen

Purified recombinant fragment of ABL2 expressed in E. Coli.

Formulation

Ascitic fluid containing 0.03% sodium azide.

ABL2 Antibody - Additional Information**Gene ID 27****Other Names**

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

Dilution

WB~~1/500 - 1/2000

ICC~~N/A

E~~N/A

Storage

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.

Precautions

ABL2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

ABL2 Antibody - 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, ABL1. 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

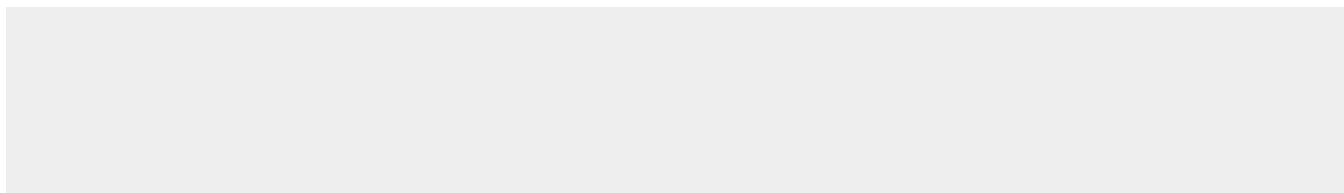
Widely expressed.

ABL2 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

ABL2 Antibody - Images



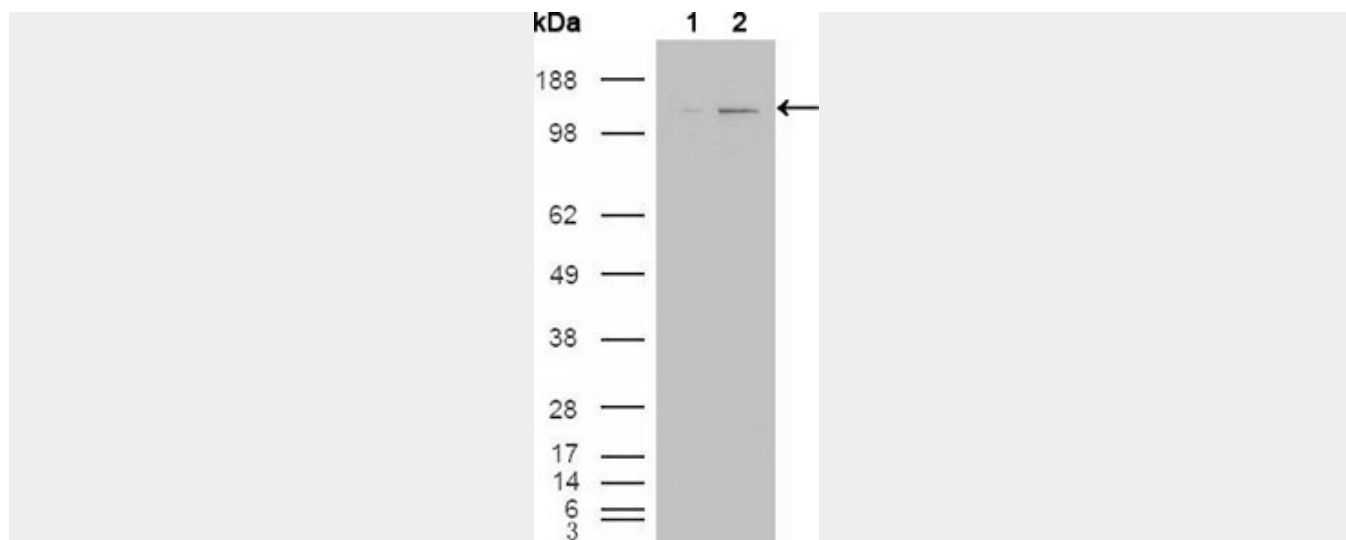


Figure 1: Western blot analysis using ABL2 mouse mAb against HEK293T cells transfected with the pCMV6-ENTRY control (1) and pCMV6-ENTRY ABL2 cDNA (2).

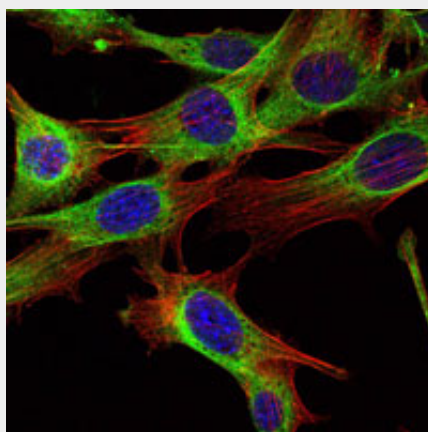


Figure 2: Immunofluorescence analysis of NIH/3T3 cells using ABL2 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

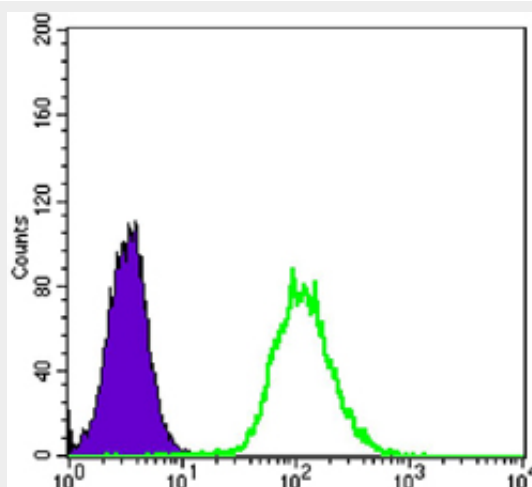


Figure 2: Flow cytometric analysis of HeLa cells using anti-CK7 mAb (green) and negative control (purple).

ABL2 Antibody - 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.