

Rabbit ABL Polyclonal Antibody | anti-ABL1 antibody

ABL Antibody

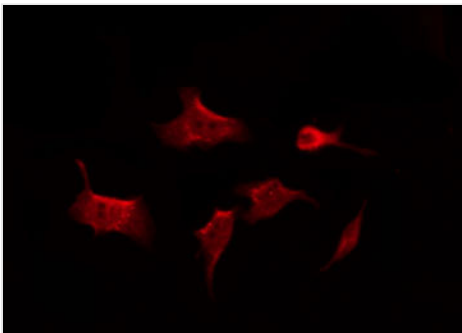
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA322155	Rabbit	Human, Mouse, Rat, Monkey	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

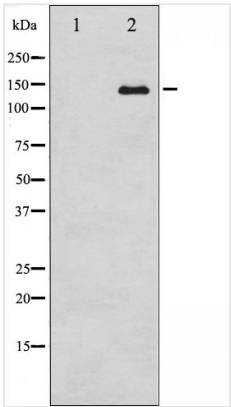
ABL; Polyclonal Antibody; ABL Antibody; Abelson murine leukemia viral oncogene homolog 1; Abelson tyrosine protein kinase 1; ABL 1; ABL proto oncogene 1 non receptor tyrosine kinase; ABL1; ABL1_HUMAN; bcr/ABL; bcr/c ABL oncogene protein; c ABL; c ABL oncogene 1 non receptor tyrosine kinase; c ABL oncogene 1 receptor tyrosine kinase; c ABL1; JTK7; p150; Proto oncogene tyrosine protein kinase ABL1; Proto-oncogene c-ABL; Tyrosine-protein kinase ABL1; v ABL Abelson murine leukemia viral oncogene homolog 1; v ABL; anti-ABL1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat, Monkey
Clonality	Polyclonal
Isotype	IgG
Specificity	Abl antibody detects endogenous levels of total Abl
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	1130
Applicable Applications for anti-ABL1 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human Abl
Subcellular Location	Cytoplasm > Cytoskeleton. Nucleus. Sequestered into the cytoplasm through interaction with 14-3-3 proteins and nucleus membrane. The myristoylated c-ABL protein is reported to be nuclear.
Tissue Specificity	Widely expressed.
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus
Similarity	Pig (100%), Zebrafish (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (80%), Dog (100%), Chicken (100%), Xenopus (91%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IF (Immunofluorescence)
AAA322155 staining COS7 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



WB (Western Blot)
Western blot analysis of Abl expression in Adriamycin treated COS7 whole cell lysates, The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-ABL1 antibody	Description: The ABL1 protooncogene encodes a cytoplasmic and nuclear protein tyrosine kinase that has been implicated in processes of cell differentiation, cell division, cell adhesion, and stress response. Activity of c-Abl protein is negatively regulated by its SH3 domain, and deletion of the SH3 domain turns ABL1 into an oncogene. Function: Non-receptor tyrosine-protein kinase that plays a role in many 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 WASF3 (involved in branch formation); ANXA1 (involved in membrane anchoring); DBN1, DBNL, CTTN, RAPH1 and ENAH (involved in signaling); or MAPT and PXN (microtubule-binding proteins). Phosphorylation of WASF3 is critical for the stimulation of lamellipodia formation and cell migration. Involved in the regulation of cell adhesion and motility through phosphorylation of key regulators of these processes such as BCAR1, CRK, CRKL, DOK1, EFS or NEDD9. Phosphorylates multiple receptor tyrosine kinases and more particularly promotes endocytosis of EGFR, facilitates the formation of neuromuscular synapses through MUSK, inhibits PDGFRB-mediated chemotaxis and modulates the endocytosis of activated B-cell receptor complexes. Other substrates which are involved in endocytosis regulation are the caveolin (CAV1) and RIN1. Moreover, ABL1 regulates the CBL family of ubiquitin ligases that drive receptor down-regulation and actin remodeling. Phosphorylation of CBL leads to increased EGFR stability. Involved in late-stage autophagy by regulating positively the trafficking and function of lysosomal components. ABL1 targets to mitochondria in response to oxidative stress and thereby mediates mitochondrial dysfunction and cell death. In response to oxidative stress, phosphorylates serine/threonine kinase PRKD2 at 'Tyr-717' (PubMed:28428613). ABL1 is also translocated in the nucleus where it has DNA-binding activity and is involved in DNA-damage response and apoptosis. Many substrates are known mediators of DNA repair: DDB1, DDB2, ERCC3, ERCC6, RAD9A, RAD51, RAD52 or WRN. Activates the proapoptotic pathway when the DNA damage is too severe to be repaired. Phosphorylates TP73, a primary regulator for this type of damage-induced apoptosis. Phosphorylates the caspase CASP9 on 'Tyr-153' and regulates its processing in the apoptotic response to DNA damage. Phosphorylates PSMA7 that leads to an inhibition of proteasomal activity and cell cycle transition blocks. ABL1 acts also as a regulator of multiple pathological signaling cascades during infection. Several known tyrosine-phosphorylated microbial proteins have been identified as ABL1 substrates. This is the case of A36R of Vaccinia virus, Tir (translocated intimin receptor) of pathogenic E.coli and possibly Citrobacter, CagA (cytotoxin-associated gene A) of H.pylori, or AnkA (ankyrin repeat-containing protein A) of A.phagocytophilum. Pathogens can hijack ABL1 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. Regulates T-cell differentiation in a TBX21-dependent manner. Phosphorylates TBX21 on tyrosine residues leading to an enhancement of its transcriptional activator activity (By similarity). Subunit Structure: Interacts with SORBS1 following insulin stimulation. Found in a trimolecular complex containing CDK5 and CABLES1. Interacts with CABLES1 and PSTPIP1. Interacts with ZDHHC16, ITGB1 and HCK (By similarity). Interacts with STX17; probably phosphorylates STX17. Interacts with INPPL1/SHIP2. Interacts with the 14-3-3 proteins, YWHAB, YWHAE, YWHAG, YWHAH, SFN AND YWHAZ; the interaction with 14-3-3 proteins requires phosphorylation on Thr-735 and, sequesters ABL1 into the cytoplasm. Interacts with ABI1, ABI2, BCR, CRK, FGR, FYN, HCK, LYN, PSMA7 RAD9A, RAD51, RAD52, TP73 and WASF3. A complex made of ABL1, CTTN and MYLK regulates cortical actin-based cytoskeletal rearrangement critical to sphingosine 1-phosphate (S1P)-mediated endothelial cell (EC) barrier enhancement. Interacts (via SH3 domain) with CASP9; the interaction is direct and increases in the response of cells to genotoxic stress and ABL1/c-Abl activation. Found in a complex with ABL1, ABL2, CRK and UNC119; leading to the inhibition of CRK phosphorylation by ABL kinases. Interacts with TBX21 (By similarity). Post-translational Modifications: Acetylated at Lys-711 by EP300 which promotes the cytoplasmic translocation. Phosphorylation at Tyr-70 by members of the SRC family of kinases disrupts SH3 domain-based autoinhibitory interactions and intermolecular associations, such as that with ABI1, and also enhances kinase activity. Phosphorylation at Tyr-226 and Tyr-393 correlate with increased activity. DNA damage-induced activation of ABL1 requires the function of ATM and Ser-446 phosphorylation (By similarity). Phosphorylation at Ser-569 has been attributed to a CDC2-associated kinase and is coupled to cell division (By similarity). Phosphorylation at Ser-618 and Ser-619 by PAK2 increases binding to CRK and reduces binding to ABI1. Phosphorylation on Thr-735 is required for binding 14-3-3 proteins for cytoplasmic translocation. Phosphorylated by PRKDC (By similarity). Polyubiquitinated. Polyubiquitination of ABL1 leads to degradation. Similarity: Belongs to the protein kinase superfamily. Tyr protein kinase family. ABL subfamily.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	62362414
NCBI GeneID	25

NCBI Accession #	NP_005148.2
NCBI GenBank Nucleotide #	NM_005157.5
UniProt Accession #	P00519 ; Q13869 ; Q13870 ; Q16133 ; Q17R61 ; Q45F09 ; A3KFJ3
Molecular Weight	Observed: 135 kDa Predicted: 123 kDa
NCBI Official Full Name	tyrosine-protein kinase ABL1 isoform a
NCBI Official Synonym Full Names	ABL proto-oncogene 1, non-receptor tyrosine kinase
NCBI Official Symbol	ABL1
NCBI Official Synonym Symbols	ABL; JTK7; p150; c-ABL; v-abl; CHDSKM; c-ABL1; bcr/abl
NCBI Protein Information	tyrosine-protein kinase ABL1
UniProt Protein Name	Tyrosine-protein kinase ABL1
UniProt Gene Name	ABL1
UniProt Synonym Gene Names	ABL; JTK7

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/abl-antibody-immunocytochemistry-immunofluorescence-western-blot-elisa/322155>