

## ABL1/2 (Phospho Tyr393/439) Rabbit pAb

CatalogNo: YP0004 **Orthogonal Validated** 

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse

#### Applications

- WB, IHC, IF, ELISA

#### MW

- 123kD (Calculated)  
125(200kD BCR-ABL complex)  
(Observed)

#### Isotype

- IgG

### Storage

**Storage\*** -15°C to -25°C/1 year (Do not lower than -25°C)

**Formulation** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

### Recommended Dilution Ratios

**WB 1:500-1:2000**

**IHC 1:100-1:300**

**IF 1:200-1:1000**

**ELISA 1:5000**

**Not yet tested in other applications.**

### Basic Information

**Clonality** Polyclonal

### Immunogen Information

**Immunogen** The antiserum was produced against synthesized peptide derived from human Abl around the phosphorylation site of Tyr393/412. AA range:406-455

**Specificity**

This antibody detects endogenous Phospho levels of ABL1 protein only when phosphorylated at Y393, Abl2 protein only when phosphorylated at Y439. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):DTyTA

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## | Target Information

**Gene name** ABL1/ABL2

**Protein Name** Tyrosine-protein kinase ABL1/2

Organism	Gene ID	UniProt ID
Human	<a href="#">25</a> ; <a href="#">27</a> ;	<a href="#">P00519</a> ; <a href="#">P42684</a> ;
Mouse	<a href="#">11350</a> ;	<a href="#">P00520</a> ;
Rat	<a href="#">311860</a> ; <a href="#">304883</a> ;	

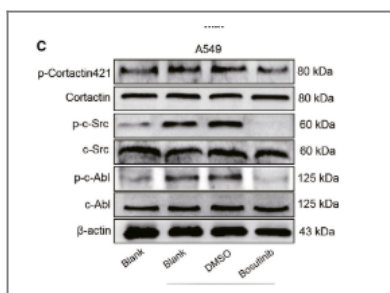
**Cellular Localization** ABL1: Cytoplasm > cytoskeleton. Nucleus. Sequestered into the cytoplasm through interaction with 14-3-3 proteins and Nucleus membrane. The myristoylated c-ABL protein is reported to be nuclear. ABL2: Cytoplasm , cytoskeleton.

**Tissue specificity** Widely expressed.

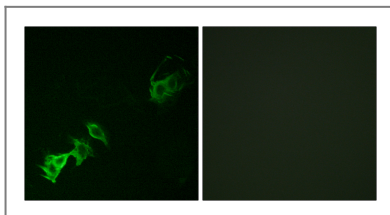
## Function

Catalytic activity:ATP + a [protein]-L-tyrosine = ADP + a [protein]-L-tyrosine phosphate. ,cofactor:Magnesium or manganese. ,Disease:A chromosomal aberration involving ABL1 is a cause of chronic myeloid leukemia (CML) [MIM:608232]. Translocation t (9;22) (q34;q11) with BCR. The translocation produces a BCR-ABL found also in acute myeloid leukemia (AML) and acute lymphoblastic leukemia (ALL) . ,enzyme regulation:Stabilized in the inactive form by an association between the SH3 domain and the SH2-TK linker region , interactions of the amino-terminal cap , and contributions from an amino-terminal myristoyl group and phospholipids. Activated by autophosphorylation as well as by SRC-family kinase-mediated phosphorylation. Activated by RIN1 binding to the SH2 and SH3 domains. Inhibited by imatinib mesylate (Gleevec) which is used for the treatment of chronic myeloid leukemia (CML) . ,Function:Regulates cytoskeleton remodeling during cell differentiation , cell division and cell adhesion. Localizes to dynamic actin structures , and phosphorylates CRK and CRKL , DOK1 , and other proteins controlling cytoskeleton dynamics. Regulates DNA repair potentially by activating the proapoptotic pathway when the DNA damage is too severe to be repaired. ,online information:Abl entry ,PTM:Phosphorylated by PRKDC (By similarity) . DNA damage-induced activation of c-Abl requires the function of ATM and Ser-446 phosphorylation. Isoform IB is myristoylated on Gly-2. Phosphorylation on Thr-735 is required for binding 14-3-3 proteins for cytoplasmic translocation. ,similarity:Belongs to the protein kinase superfamily. Tyr protein kinase family. ,similarity:Belongs to the protein kinase superfamily. Tyr protein kinase family. ABL subfamily. ,similarity:Contains 1 protein kinase domain. ,similarity:Contains 1 SH2 domain. ,similarity:Contains 1 SH3 domain. ,subcellular location:The myristoylated c-ABL protein is reported to be nuclear. Sequestered into the cytoplasm through interaction with 14-3-3 proteins. ,subunit:Interacts with SORBS1 following insulin stimulation. Found in a trimolecular complex containing CDK5 and CABLES1. Interacts with CABLES1 and PSTPIP1. Interacts with ZDHHC16 (By similarity) . 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. ,tissue specificity:Widely expressed. ,

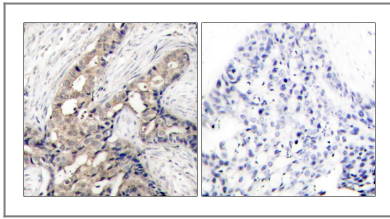
## Validation Data



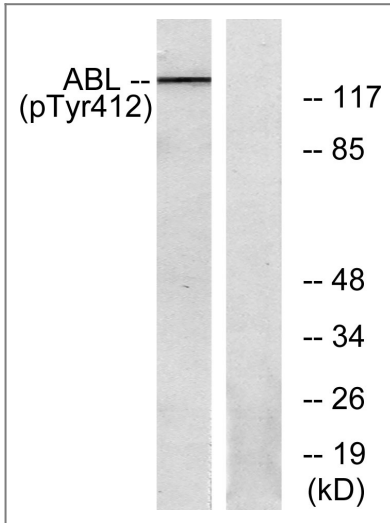
Fan, Mengtian, et al. "CX3CL1 promotes tumour cell by inducing tyrosine phosphorylation of cortactin in lung cancer." *Journal of Cellular and Molecular Medicine* 25.1 (2021): 132-146.



Immunofluorescence analysis of A549 cells, using Abl (Phospho-Tyr393/412) Antibody. The picture on the right is blocked with the phospho peptide.



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using Abl (Phospho-Tyr393/412) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from RAW264.7 cells, using Abl (Phospho-Tyr393/412) Antibody. The lane on the right is blocked with the phospho peptide.

## Contact information

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Please scan the QR code to access additional product information:  
**ABL1/2 (Phospho Tyr393/439) Rabbit pAb**

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