


Product datasheet

Anti-c Abl (phospho Y412) antibody ab47315

★★★★☆ 2 Abreviews 3 References 3 Images

Overview

Product name	Anti-c Abl (phospho Y412) antibody
Description	Rabbit polyclonal to c Abl (phospho Y412)
Host species	Rabbit
Specificity	ab47315 detects endogenous levels of c-Abl only when phosphorylated at tyrosine 412.
Tested applications	Suitable for: ICC/IF, WB, IHC-P, ELISA
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat 
Immunogen	The antiserum was produced against synthesized phosphopeptide derived from human c-Abl around the phosphorylation site of tyrosine 412 (D-T-Y ^P -T-A). Note: Two forms of c Abl are generated by alternative splicing. Tyr residue at position 412 is present in isoforms 1b of c Abl. The corresponding phosphorylation site in isoforms 1a is at position 393.
Positive control	Human breast carcinoma tissue

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	Preservative: 0.02% Sodium Azide Constituents: 50% Glycerol, PBS, 150mM Sodium chloride, pH 7.4
Purity	Immunogen affinity purified
Purification notes	The antibody was affinity-purified using epitope-specific phosphopeptide. The antibody against non-phosphopeptide was removed by chromatography using non-phosphopeptide corresponding to the phosphorylation site.
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab47315** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF	★★★★☆	1/100.
WB	★★★★☆	Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration.
ELISA		1/4000.

Target

Function

Protein kinase that regulates key processes linked to cell growth and survival. 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. Phosphorylates PSMA7 that leads to an inhibition of proteasomal activity and cell cycle transition blocks.

Tissue specificity

Widely expressed.

Involvement in disease

Note=A chromosomal aberration involving ABL1 is a cause of chronic myeloid leukemia. 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).

Sequence similarities

Belongs to the protein kinase superfamily. Tyr protein kinase family. ABL subfamily. Contains 1 protein kinase domain. Contains 1 SH2 domain. Contains 1 SH3 domain.

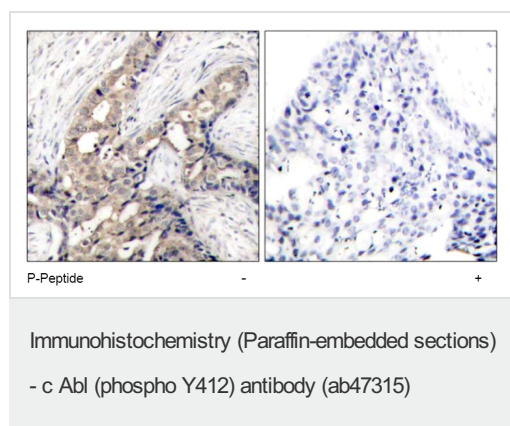
Post-translational modifications

Phosphorylated by PRKDC (By similarity). DNA damage-induced activation of c-Abl requires the function of ATM and Ser-446 phosphorylation (By similarity). Phosphorylation on Thr-735 is required for binding 14-3-3 proteins for cytoplasmic translocation. Isoform IB is myristoylated on Gly-2.

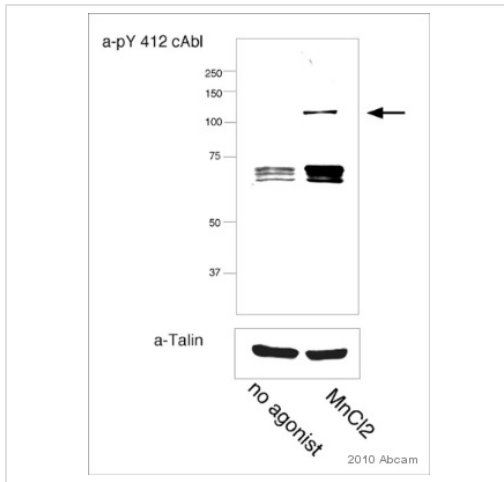
Cellular localization

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.

Images

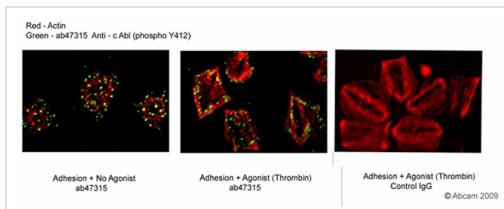


ab47315 staining human breast carcinoma by IHC-P (left hand panel). The right hand panel shows staining in the presence of phosphopeptide.



ab47315 on platelets unstimulated and stimulated with $MnCl_2$

Western blot - c Abl (phospho Y412) antibody (ab47315)



Immunocytochemistry/ Immunofluorescence - c Abl (phospho Y412) antibody (ab47315)

This image is a courtesy of Anonymous Abreview

ab47315 staining c Abl (phospho Y412) in human platelets by Immunocytochemistry/ Immunofluorescence. Cells were fixed with formaldehyde and permeabilized with 0.2% Triton x100 before blocking with 10% serum at 20°C for 1 hour. Samples were incubated with primary antibody (1/100: in 10% goat serum) for 1 hour 20 minutes at 20°C. An Alexa Fluor®488-conjugated goat polyclonal to rabbit IgG used at dilution at 1/400 as secondary antibody.

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