

c-Abl (Tyr-412), phospho-specific

Cat. # AP1271

Host Rabbit Polyclonal

Size 100 µl

Background:

The c-Abl proto-oncogene encodes a nonreceptor type protein tyrosine kinase that is widely expressed and is distributed in both the nucleus and the cytoplasm of cells. It has been implicated in regulation of cell proliferation, differentiation, apoptosis, cell adhesion, and stress response. A variety of stimuli activate c-Abl kinase including integrin activation, PDGF stimulation, and binding to proteins, such as c-Jun. Tyrosine phosphorylation is important for the regulation of c-Abl kinase activity. Tyrosine 245 is located in the linker region between the SH2 and catalytic domains. Phosphorylation of Tyr-245 is involved in activation of c-Abl kinase activity. Tyrosine 412 is located in the kinase activation loop of c-Abl, and phosphorylation of this residue is required for kinase activity. Thus, phosphorylation of Tyr-245 and Tyr-412 may be critical for activation of c-Abl in a variety of cell signaling pathways.

References

- Brasher, B.B. et al. (2000) J. Biol. Chem. 275:35631.
Pluk, H. et al. (2002) Cell 108:247.
Van Etten, R.A. et al. (1999) Trends Cell. Biol. 9:179.

Immunogen:

Phospho-c-Abl (Tyr-412) synthetic peptide (coupled to KLH) corresponding to amino acid residues around tyrosine 412 of human c-Abl. This peptide sequence has high homology to the conserved site in rat and mouse c-Abl, as well as in viral Abl and BCR-Abl fusion protein.

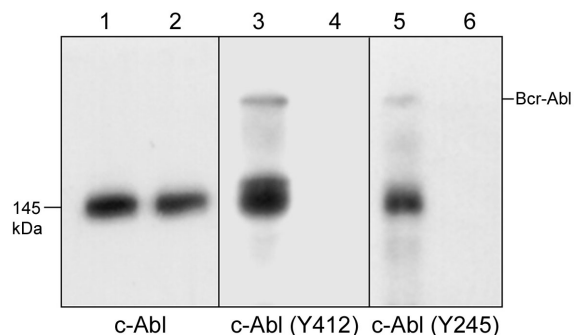
Applications:

WB 1:1000
ELISA 1:2000

End user should determine optimal dilution for their particular applications and experiments. Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

Related Products:

- AP1251 c-Abl (Tyr-245), phospho-specific Rabbit Polyclonal
AX1255 phospho-c-Abl (Tyr-245) Peptide
AX1275 phospho-c-Abl (Tyr-412) Peptide
AM2091 c-Abl (C-terminal Region) Mouse Monoclonal
FM2381 Fyn (N-terminal region) Mouse Monoclonal



Western blot analysis of K-562 cells treated with pervanadate (1 mM) for 30 minutes (lanes 1, 3, & 5). Some lanes were treated with alkaline phosphatase to remove phosphorylation on c-Abl (lanes 2, 4, & 6), then the blots were probed with anti-c-Abl (lanes 1 & 2), anti-c-Abl (Tyr-412) (AP1271; lanes 3 & 4), or anti-c-Abl (Tyr-245) (AP1251; lanes 5 & 6).

Buffer and Storage:

Rabbit polyclonal, affinity-purified antibody is supplied in 100 µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Do not aliquot. Stable for 1 year.

Specificity:

This antibody was cross-adsorbed to phospho-tyrosine coupled to agarose and to phospho-c-Abl (Tyr-245) peptide before affinity purification using phospho-c-Abl (Tyr-412) peptide. On SDS-PAGE immunoblots of K-562 treated with pervanadate the antibody detects a 145 kDa* protein corresponding to c-Abl and a 210 kDa band corresponding to BCR-Abl.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

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