

#2865 Store at -20°C

Phospho-c-Abl (Tyr412) (247C7) Rabbit mAb

100 µl
 (10 western blots)



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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W Endogenous	H, (M)	135 kDa c-Abl. 210 kDa Bcr-Abl.	Rabbit IgG**

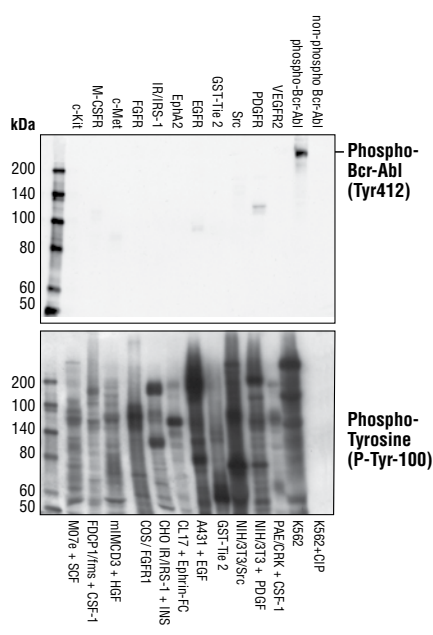
Background: The c-Abl proto-oncogene encodes a nonreceptor protein tyrosine kinase that is ubiquitously expressed and highly conserved in metazoan evolution. c-Abl protein is distributed in both the nucleus and the cytoplasm of cells. It is implicated in regulating cell proliferation, differentiation, apoptosis, cell adhesion and stress responses (1-3). c-Abl kinase activity is increased *in vivo* by diverse physiological stimuli including integrin activation, PDGF stimulation and binding to c-Jun, Nck and RFX1 (2,4). The *in vivo* mechanism of regulation of c-Abl kinase activity is not completely understood. Tyr245 is located in the linker region between the SH2 and catalytic domains. This positioning is conserved among Abl family members. Phosphorylation of Tyr245 is involved in the activation of c-Abl kinase (5). In addition, phosphorylation of Tyr412, which is located in the kinase activation loop of c-Abl, is required for kinase activity (6).

Specificity/Sensitivity: Phospho-c-Abl (Tyr412) (247C7) Rabbit mAb detects endogenous Abl proteins only when phosphorylated at tyrosine 412. The antibody does not cross-react with other phosphorylated tyrosine kinases.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr412 of human c-Abl.

Background References:

- Wang, J.Y. et al. (2000) *Oncogene* 19, 5643–5650.
- Van Etten, R.A. et al. (1999) *Trends Cell. Biol.* 9, 179–182.
- Danial, N.N. et al. (2000) *Oncogene* 19, 2523–2531.
- Shaul, Y. et al. (2000) *Cell Death Differ.* 7, 10–16.
- Brasher, B.B. et al. (2000) *J. Biol. Chem.* 275, 35631–35637.
- Pluk, H. et al. (2002) *Cell* 108, 247–259.



Western blot analysis of extracts from cells expressing various activated tyrosine kinase proteins, using Phospho-c-Abl (Tyr412) (247C7) Rabbit mAb (upper) or Phospho-Tyrosine mAb (P-Tyr-100) #9411 (lower). Phospho-c-Abl (Tyr412) (247C7) Rabbit mAb specifically recognizes the activated Abl of Bcr-Abl fusion proteins, whose phosphorylation was abolished by calf intestinal phosphatase (CIP) treatment.

Entrez-Gene ID #25
Swiss-Prot Acc. #P00519-2

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

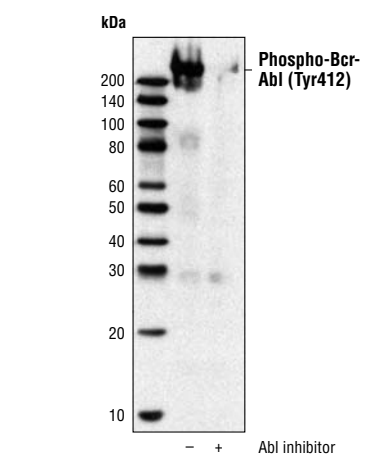
**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

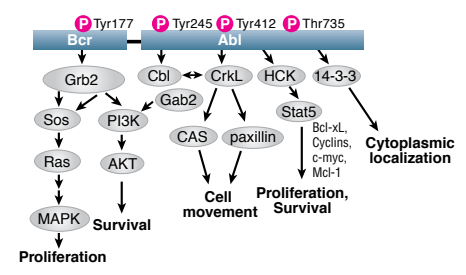
Western blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignaling.com.

Please visit www.cellsignaling.com for a complete listing of recommended companion products.



Western blot analysis of extracts from K562 cells, untreated or treated with an Abl inhibitor, using Phospho-c-Abl (Tyr412) (247C7) Rabbit mAb.



IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.

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