#3098 Store at -20°C

Phospho-c-Abl (Tyr89) (61A6) Rabbit mAb

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Entrez-Gene ID #25
UniProt ID #P00519

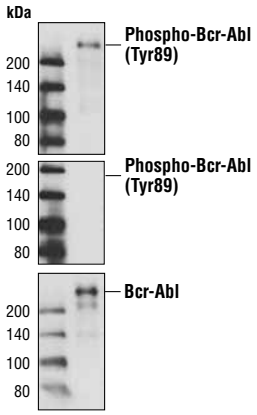
Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W Endogenous	H, (M)	210 (Bcr-Abl) kDa 135 (c-Abl) kDa	Rabbit IgG**

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).

Phosphorylation of c-Abl on Tyr89 was identified at Cell Signaling Technology (CST) using PhosphoScan®, CST's LC-MS/MS platform for phosphorylation site discovery as well as another publication using MS technology (7). For additional information please visit PhosphoSitePlus™, CST's modification site knowledgebase, at www.phosphosite.org.

Specificity/Sensitivity: Phospho-c-Abl (Tyr89) (61A6) Rabbit mAb detects endogenous levels of c-Abl only when phosphorylated at Tyr89. This antibody may cross-react with other tyrosine-phosphorylated proteins.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr89 of human c-Abl.



Western blot analysis of extract from CML-T1 leukemic cells with Phospho-c-Abl (Tyr89) (61A6) Rabbit mAb (upper and middle) or c-Abl Antibody #2862 (lower). The phospho-specificity of this rabbit mAb was verified by treating the membrane with calf intestinal phosphatase (CIP) (middle and lower) before antibody probing.

Background References:

(1) Wang, J.Y. et al. (2000) *Oncogene* 19, 5643–5650.
(2) Van Etten, R.A. et al. (1999) *Trends Cell. Biol.* 9, 179–182.
(3) Danial, N.N. et al. (2000) *Oncogene* 19, 2523–2531.
(4) Shaul, Y. et al. (2000) *Cell Death Differ.* 7, 10–16.
(5) Brasher, B.B. et al. (2000) *J. Biol. Chem.* 275, 35631–35637.
(6) Pluk, H. et al. (2002) *Cell* 108, 247–259.
(7) Meyn, M.A. et al. (2006) *J. Biol. Chem.* 281, 30907–30916.

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.cellsignal.com.

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

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.