Revision 1

Store at -20C

#3098

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

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Endogenous	135 (c-Abl); 210 (Bcr-Abl)	Rabbit IgG	#P00519	25

Product Usage Information

Application	Dilution
Western Blotting	1:1000

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.

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.

Species predicted to react based on 100% sequence homology

Mouse

Source / Purification

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

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 for 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 at Tyr245 is involved in the activation of c-Abl kinase (5). In addition, phosphorylation at 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.

Background References

1. Wang, J.Y. (2000) *Oncogene* 19, 5643-50.
2. Van Etten, R.A. (1999) *Trends Cell Biol* 9, 179-86.
3. Danial, N.N. and Rothman, P. (2000) *Oncogene* 19, 2523-31.
4. Shaul, Y. (2000) *Cell Death Differ* 7, 10-6.
5. Brasher, B.B. and Van Etten, R.A. (2000) *J Biol Chem* 275, 35631-7.
6. Pluk, H. et al. (2002) *Cell* 108, 247-259.
7. Meyn, M.A. et al. (2006) *J. Biol. Chem.* 281, 30907-30916.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

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