

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

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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**

Western Blotting

**Dilution**

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 (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.

**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 Tyr412 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).

**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.

**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 nonfat dry milk, 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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