Revision 1

Store at -20C

#2864

Phospho-c-Abl (Thr735) Antibody

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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	Rabbit	#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 and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Phospho-c-Abl (Thr735) Antibody detects endogenous levels of c-Abl or Bcr-Abl only when phosphorylated at threonine 735. The antibody does not cross-react with other related proteins.

Species predicted to react based on 100% sequence homology

Mouse

Source / Purification

Polyclonal antibodies are produced by immunizing animals with synthetic phosphopeptide corresponding to residues surrounding Thr735 of human c-Abl. Antibodies are purified by protein A and peptide affinity chromatography.

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).
Thr735 is located within a conserved 14-3-3 protein binding motif region, and can be phosphorylated upon stress stimulation or TPA treatment. Phosphorylation at Thr735 may play an important role in regulating c-Abl localization as well as its function.

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 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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