Store at -20°C

#2864

Phospho-c-Abl (Thr735) Antibody

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For Research Use Only. Not For Use In Diagnostic Procedures.

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

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W Endogenous	H, (M)	135 kDa	Rabbit**

Background: The c-Abl proto-oncogene encodes a nonreceptor type 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).

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 unpublished data).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

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

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 References:

(1) Wang, J.Y. et al. (2000) *Oncogene* 19, 5643–5650.

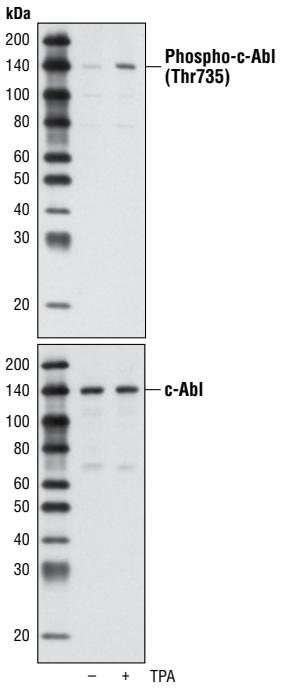
(2) Van Etten, R.A. et al. (1999) *Trends Cell. Biol.* 9, 179–182.

(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.



Western blot analysis of extracts from HeLa cells, untreated or TPA-treated (200 nM), using Phospho-c-Abl (Thr735) Antibody (upper) or c-Abl Antibody #2862 (lower).

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.*

***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.