

Phospho-Bcr (Tyr177) Antibody

100 µl
 (10 western blots)

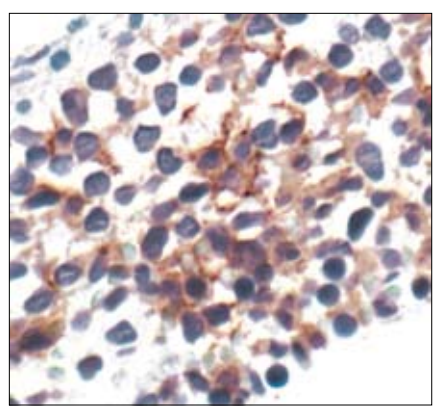
Orders ■ 877-616-CELL (2355)
 orders@cellsignal.com
Support ■ 877-678-TECH (8324)
 info@cellsignal.com
Web ■ www.cellsignal.com

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IHC-P, F Endogenous	H, M	160 kDa (Bcr), 210 kDa (Bcr-Abl)	Rabbit**

Background: The Bcr gene was originally identified by its presence in the chimeric Bcr-Abl oncogene (1). The amino-terminal region of Bcr contains an oligomerization domain, a serine/threonine kinase domain and a region that binds SH2 domains. The middle of the protein has a PH domain and a region of sequence similarity to the guanine nucleotide exchange factors for the Rho family of GTP binding proteins. The carboxy terminal region may be involved in a GTPase activating function for the small GTP-binding protein Rac (2,3). The function of wild type Bcr in cells remains unclear. PDGF receptor may use Bcr as a downstream signaling mediator (4). The Bcr-Abl fusion results in production of a constitutively active tyrosine kinase, which causes chronic myelogenous leukemia (CML) (5). Tyr177 of Bcr is phosphorylated in the Bcr-Abl fusion protein, which plays an important role in the transforming activity of Bcr-Abl (6). Phosphorylated Tyr177 of Bcr provides a docking site for Gab2 and GRB2 (7,8).



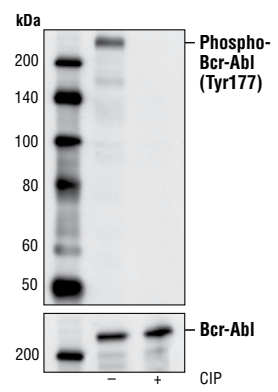
Immunohistochemical analysis of paraffin-embedded bone marrow from a patient with chronic myelogenous leukemia, showing membrane and cytoplasmic localization using Phospho-Bcr (Tyr177) Antibody.

Specificity/Sensitivity: Phospho-Bcr (Tyr177) Antibody detects endogenous levels of Bcr and Bcr-Abl only when phosphorylated at Tyr177.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr177 of human Bcr. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- Groffen, J. et al. (1984) *Cell* 36, 93–99.
- Maru, Y. et al. (1991) *Cell* 67, 459–468.
- Che, W. et al. (2001) *Circulation* 104, 1399–1406.
- Abe, J.I. et al. (2001) *Ann. N.Y. Acad. Sci.* 947, 341–343.
- Voncken, J.W. et al. (1995) *Cell* 80, 719–728.
- He, Y. et al. (2002) *Blood* 99, 2957–2968.
- Sattler, M. et al. (2002) *Cancer Cell* 1, 479–492.
- Warmuth, M. et al. (1995) *J. Biol. Chem.* 272, 33260–33270.



Western blot analysis of extracts from K562 cells, untreated or calf intestinal phosphatase (CIP)-treated using Phospho-Bcr (Tyr177) Antibody (upper) or Bcr Antibody #3902 (lower).

Entrez-Gene ID #613
Swiss-Prot Acc. #P11274

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.

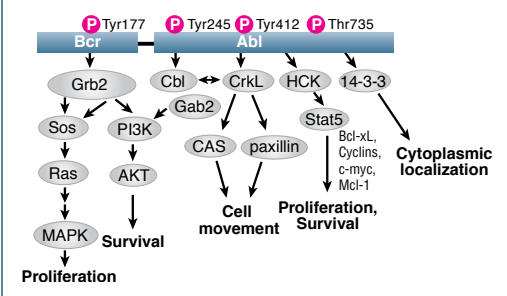
**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

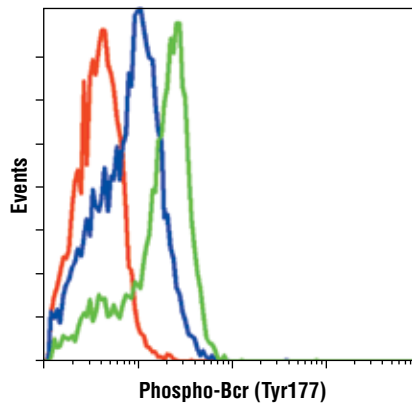
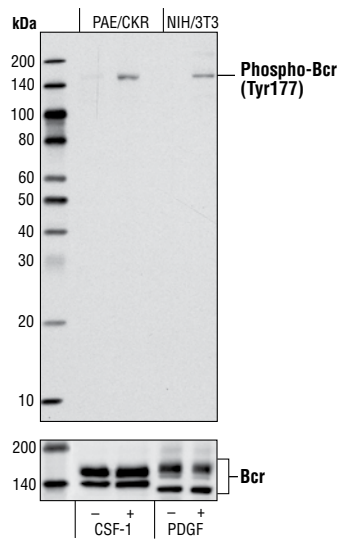
Western Blotting	1:1000
Immunohistochemistry (Paraffin)	1:50
Unmasking buffer:	EDTA
Antibody diluent:	TBST-5% NGS
Flow Cytometry	1:50

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.



Flow cytometric analysis of K562 cells, untreated (green) or Gleevec® (STI571)-treated (blue) using Phospho-Bcr (Tyr177) Antibody compared to a nonspecific negative control antibody (red).

Western blot analysis of extracts from PAE/CKR cells (expressing chimeric receptors of the extracellular domain of CSF-1R, and transmembrane and cytoplasmic domains of KDR) stimulated with CSF-1 (40 ng/ml for 5 minutes) or NIH/3T3 cells stimulated with PDGF (40 ng/ml for 2 minutes) using Phospho-Bcr (Tyr177) Antibody (upper) or Bcr Antibody #3902 (lower).