

# Bcr Antibody

100 µl  
 (10 western blots)

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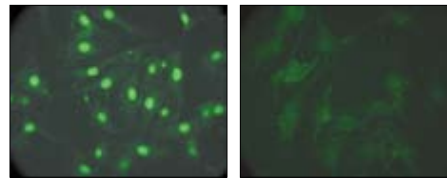
This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IF-IC, F Endogenous	H, M, R, Pg	130 kDa, 160 kDa, 210 kDa Bcr-Abl fusion	Rabbit**

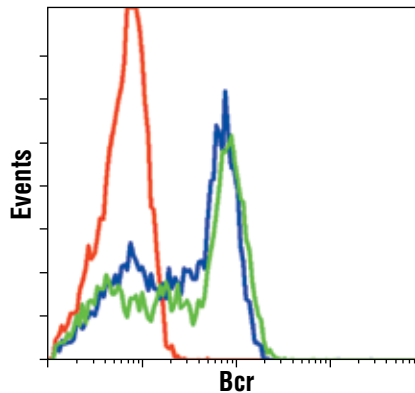
**Background:** The Bcr gene was originally identified by its presence in the chimeric Bcr-Abl oncogene (1). The amino-terminal region of Bcr contains an oligomerization domain, a serine/threonine kinase domain and a region that binds SH2 domains. The middle of the protein has a PH domain and a region 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).

**Specificity/Sensitivity:** Bcr Antibody detects endogenous levels of total Bcr as well as the 210 kDa Bcr-Abl fusion protein.

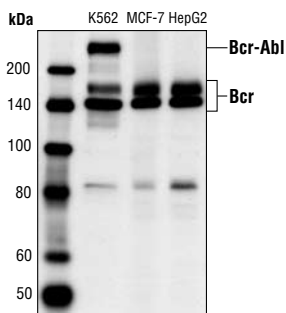
**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the amino-terminal sequence of human Bcr. Antibodies are purified by protein A and peptide affinity chromatography.



Immunofluorescent analysis of PAE cells using Bcr Antibody (left) or the same antibody preincubated with Bcr-specific peptide (right).



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



Western blot analysis of extracts from K562, MCF-7 and HepG2 cells using Bcr Antibody.

**Background References:**

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

**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.

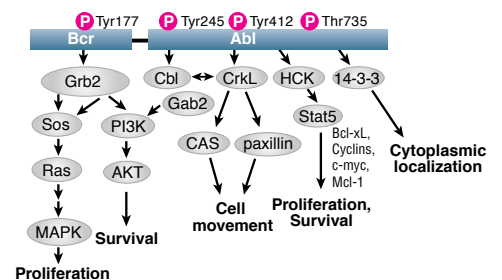
\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.

**Recommended Antibody Dilutions:**

Western Blotting	1:1000
Immunofluorescence (IF-IC)	1:100
Flow Cytometry	1:25

For application specific protocols please see the web page for this product at [www.cellsignaling.com](http://www.cellsignaling.com).

Please visit [www.cellsignaling.com](http://www.cellsignaling.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.