

Store at
-20°C

BCAR3 Antibody

#24032



Support: +1-978-867-2388 (U.S.)
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Entrez-Gene ID #8412
UniProt ID #075815

New 08/15

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

Applications W, IP Endogenous	Species Cross-Reactivity* H	Molecular Wt. 95 kDa	Source Rabbit**
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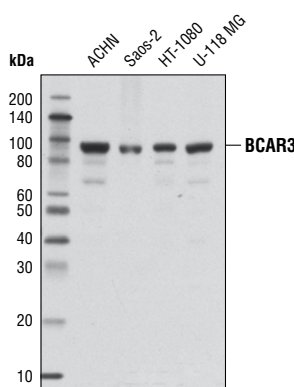
Background: BCAR3 is a member of the novel SH2-containing protein (NSP) family (1). It was identified as a gene product involved in anti-estrogen resistance in the context of breast cancer (2). Like other members of this family, BCAR3 has been shown to interact with the family member, CAS. The C terminal Cdc25 homology domain of BCAR3 interacts tightly with the FAT domain of p130Cas (3) and promotes the association of p130cas with Src kinase (4) to activate related signaling pathways. Overexpression of BCAR3 leads to the activation of a wide range of downstream signaling proteins including PI3K, rac, PAK1, and cyclin D1 (5-7). The main role of BCAR3 is to promote cell motility and regulate cytoskeletal remodeling and adhesion through its effect on p130cas and Src kinase (8-10). BCAR3 also has been implicated in playing an inhibitory role on TGF- β /SMAD signaling, which is associated with favorable disease outcomes (11).

Specificity/Sensitivity: BCAR3 antibody recognizes endogenous levels of total BCAR3 protein.

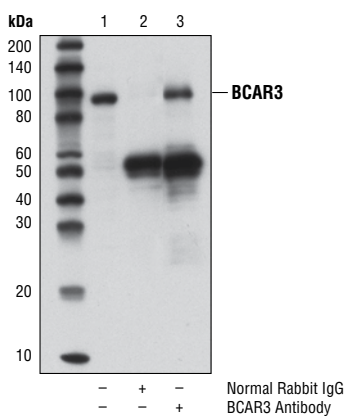
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro526 of human BCAR3 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- (1) Near, R.I. et al. (2007) *J Cell Physiol* 212, 655-65.
- (2) van Agthoven, T. et al. (1998) *EMBO J* 17, 2799-808.
- (3) Mace, P.D. et al. (2011) *Nat Struct Mol Biol* 18, 1381-7.
- (4) Makkinje, A. et al. (2012) *J Biol Chem* 287, 27703-14.
- (5) Cai, D. et al. (2003) *Cancer Res* 63, 6802-8.
- (6) Felekis, K.N. et al. (2005) *Mol Cancer Res* 3, 32-41.
- (7) Cai, D. et al. (2003) *J Immunol* 170, 969-78.
- (8) Schuh, N.R. et al. (2010) *J Biol Chem* 285, 2309-17.
- (9) Wilson, A.L. et al. (2013) *PLoS One* 8, e65678.
- (10) Makkinje, A. et al. (2009) *Cell Signal* 21, 1423-35.
- (11) Guo, J. et al. (2014) *Breast Cancer Res* 16, 476.



Western blot analysis of extracts from various cell lines using BCAR3 Antibody.



Immunoprecipitation of BCAR3 protein from ACHN cell extracts. Lane 1 is 10% input, lane 2 is Normal Rabbit IgG #2729, and lane 3 is BCAR3 Antibody. Western blot analysis was performed using BCAR3 Antibody.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/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
Immunoprecipitation	1:100

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

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IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween[®]20 at 4°C with gentle shaking, overnight.

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: 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.