

# BCAR3 (H-47): sc-135217

## BACKGROUND

BCAR3 (breast cancer anti-estrogen resistance 3, also designated AND-34 in murine; a novel SH2-containing protein 2 or NSP2 and SH2D3B) over-expression is a characteristic of anti-estrogen resistance in human ZR-75-1 breast cancer cells. The deduced 825 amino acid BCAR3 protein contains a Src homology 2 (SH2) domain and shares homology to yeast CDC48. A 3.4-kb BCAR3 transcript is present in heart, placenta, skeletal muscle, spleen, testis, prostate, ovary, small intestine, colon, fetal kidney and tamoxifen-resistant cancer cell lines. BCAR3 acts as a regulator of R-Ras to mediate the level of Insulin receptor substrate 1 (IRS-1) in MCF-7 and ZR-75-1 breast cancer cell lines. BCAR3 also interacts with p130Cas to enhance Src activation and cell migration.

## REFERENCES

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2. Gotoh, T., Cai, D., Tian, X., Feig, L.A. and Lerner, A. 2000. p130Cas regulates nucleotide exchange factor. *J. Biol. Chem.* 275: 30118-30123.
3. Cai, D., Iyer, A., Felekis, K.N., Near, R.I., Luo, Z., Chernoff, J., Albanese, C., Pestell, R.G. and Lerner, A. 2003. AND-34/BCAR3, a GDP exchange factor whose overexpression confers anti-estrogen resistance, activates Rac, PAK1, and the cyclin D1 promoter. *Cancer Res.* 63: 6802-6808.
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## CHROMOSOMAL LOCATION

Genetic locus: BCAR3 (human) mapping to 1p22.1; Bcar3 (mouse) mapping to 3 G1.

## SOURCE

BCAR3 (H-47) is a rabbit polyclonal antibody raised against amino acids 200-246 mapping within an internal region of BCAR3 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

BCAR3 (H-47) is recommended for detection of BCAR3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

BCAR3 (H-47) is also recommended for detection of BCAR3 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for BCAR3 siRNA (h): sc-60265, BCAR3 siRNA (m): sc-60266, BCAR3 shRNA Plasmid (h): sc-60265-SH, BCAR3 shRNA Plasmid (m): sc-60266-SH, BCAR3 shRNA (h) Lentiviral Particles: sc-60265-V and BCAR3 shRNA (m) Lentiviral Particles: sc-60266-V.

Molecular Weight of BCAR3: 93 kDa.

Positive Controls: SK-BR-3 cell lysate: sc-2218, BT-20 cell lysate: sc-2223 or MCF7 whole cell lysate: sc-2206.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **BCAR3 (3G4): sc-293346**, our highly recommended monoclonal alternative to BCAR3 (H-47).