10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

Anti-BCAR3 Picoband Antibody

Catalog # ABO12532

Specification

Anti-BCAR3 Picoband Antibody - Product Information

Application	**WB, IHC**
Primary Accession	O75815
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Breast cancer anti-estrogen resistance protein 3(BCAR3) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-BCAR3 Picoband Antibody - Additional Information

Gene ID 8412

Other Names
Breast cancer anti-estrogen resistance protein 3, Novel SH2-containing protein 2, SH2 domain-containing protein 3B, BCAR3, NSP2, SH2D3B

Calculated MW
92566 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat

Western blot, 0.1-0.5 µg/ml, Human

Tissue Specificity
Ubiquitously expressed. Found in several cancer cell lines, but not in nonmalignant breast tissue. .

Protein Name
Breast cancer anti-estrogen resistance protein 3

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminus of human BCAR3 (791-825aa KGAQVNQTERYEKFNQILTALSRKLEPPPVKQAEL), different from the related mouse sequence by five amino acids.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins.

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Anti-BCAR3 Picoband Antibody - Protein Information

Name BCAR3

Synonyms NSP2, SH2D3B

Function
Acts as an adapter protein downstream of several growth factor receptors to promote cell proliferation, migration, and redistribution of actin fibers (PubMed:24216110). Specifically involved in INS/insulin signaling pathway by mediating MAPK1/ERK2-MAPK3/ERK1 activation and DNA synthesis (PubMed:24216110). Promotes insulin- mediated membrane ruffling (By similarity). In response to vasoconstrictor peptide EDN1, involved in the activation of RAP1 downstream of PTK2B via interaction with phosphorylated BCAR1 (PubMed:19086031). Inhibits cell migration and invasion via regulation of TGFB-mediated matrix digestion, actin filament rearrangement, and inhibition of invadopodia activity (By similarity). May inhibit TGFB- SMAD signaling, via facilitating BCAR1 and SMAD2 and/or SMAD3 interaction (By similarity). Regulates EGF-induced DNA synthesis (PubMed:18722344). Required for the maintenance of ocular lens morphology and structural integrity, potentially via regulation of focal adhesion complex signaling (By similarity). Acts upstream of PTPRA to regulate the localization of BCAR1 and PTPRA to focal adhesions, via regulation of SRC-mediated phosphorylation of PTPRA (By similarity). Positively regulates integrin-induced tyrosine phosphorylation of BCAR1 (By similarity). Acts as a guanine nucleotide exchange factor (GEF) for small GTPases RALA, RAP1A and RRAS (By similarity). However, in a contrasting study, lacks GEF activity towards RAP1 (PubMed:22081014).

Cellular Location
Cytoplasm {ECO:0000250|UniProtKB:Q9QZK2}. Cell junction, focal adhesion {ECO:0000250|UniProtKB:Q9QZK2} Note=Localization to focal adhesions depends on interaction with PTPRA {ECO:0000250|UniProtKB:Q9QZK2}

Tissue Location
Ubiquitously expressed. Found in several cancer cell lines, but not in nonmalignant breast tissue

Anti-BCAR3 Picoband Antibody - Protocols

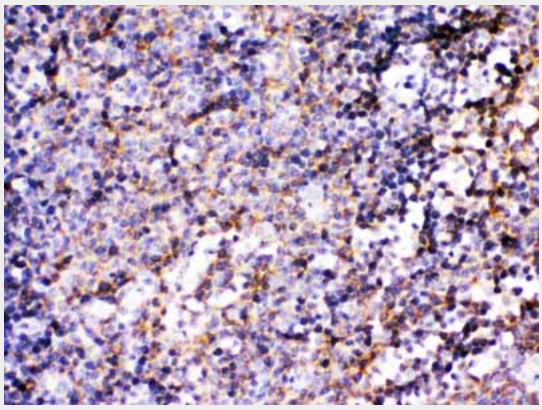
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry

- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-BCAR3 Picoband Antibody - Images

Western blot analysis of BCAR3 expression in HEPG2 whole cell lysates (lane 1). BCAR3 at 93KD was detected using rabbit anti- BCAR3 Antigen Affinity purified polyclonal antibody(Catalog # ABO12532) at 0.5 ??g/mL. The blot was developed using chemiluminescence (ECL) method .



BCAR3 was detected in paraffin-embedded sections of mouse lymphaden tissues using rabbit anti- BCAR3 Antigen Affinity purified polyclonal antibody (Catalog # ABO12532) at 1 Î¼g/mL. The immunohistochemical section was developed using SABC method .

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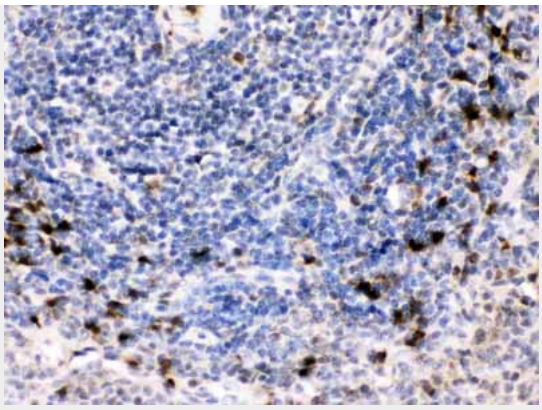
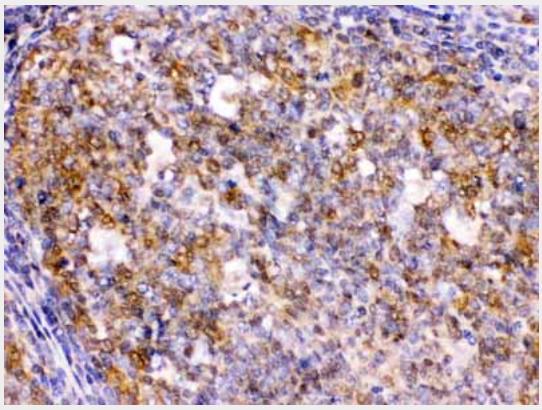


BCAR3 was detected in paraffin-embedded sections of rat spleen tissues using rabbit anti- BCAR3 Antigen Affinity purified polyclonal antibody (Catalog # ABO12532) at 1 Î¼g/mL. The immunohistochemical section was developed using SABC method .



BCAR3 was detected in paraffin-embedded sections of human tonsil tissues using rabbit anti-BCAR3 Antigen Affinity purified polyclonal antibody (Catalog # ABO12532) at 1 Î¼g/mL. The immunohistochemical section was developed using SABC method .

Anti-BCAR3 Picoband Antibody - Background

Breast cancer anti-estrogen resistance protein 3 is a protein that in humans is encoded by the BCAR3 gene. Breast tumors are initially dependent on estrogens for growth and progression and can be inhibited by anti-estrogens such as tamoxifen. However, breast cancers progress to become anti-estrogen resistant. Breast cancer anti-estrogen resistance gene 3 was identified in the search for genes involved in the development of estrogen resistance. The gene encodes a component of intracellular signal transduction that causes estrogen-independent proliferation in human breast cancer cells. The protein contains a putative src homology 2 (SH2) domain, a hall mark of cellular tyrosine kinase signaling molecules, and is partly homologous to the cell division cycle protein CDC48. Multiple transcript variants encoding different isoforms have been found for this gene.