

**BCAR3 Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ALS15164****Specification**

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**BCAR3 Antibody - Product Information**

Application	IHC
Primary Accession	<a href="#">O75815</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	93kDa KDa

**BCAR3 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

**Reconstitution & Storage**

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. Store undiluted.

**Precautions**

BCAR3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**BCAR3 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:<a href="http://www.uniprot.org/citations/24216110" target="\_blank">24216110</a>). Specifically involved in INS/insulin signaling pathway by mediating MAPK1/ERK2-MAPK3/ERK1 activation and DNA synthesis (PubMed:<a href="http://www.uniprot.org/citations/24216110" target="\_blank">24216110</a>). 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:<a href="http://www.uniprot.org/citations/19086031" target="\_blank">19086031</a>). 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:<a href="http://www.uniprot.org/citations/18722344" target="\_blank">18722344</a>). 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:<a href="http://www.uniprot.org/citations/22081014" target="\_blank">22081014</a>).

#### **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**

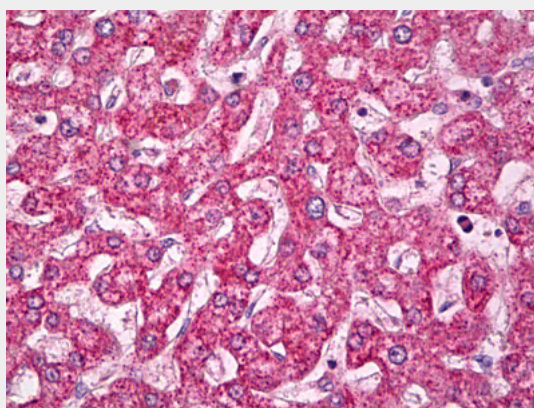
Ubiquitously expressed. Found in several cancer cell lines, but not in nonmalignant breast tissue

### **BCAR3 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 Cytometry](#)
- [Cell Culture](#)

### **BCAR3 Antibody - Images**



Anti-BCAR3 antibody IHC of human liver.

### **BCAR3 Antibody - Background**

May act as an adapter protein and couple activated growth factor receptors to a signaling pathway that regulates the proliferation in breast cancer cells. When overexpressed, it confers anti-estrogen resistance in breast cancer cell lines. May also be regulated by cellular adhesion to extracellular matrix proteins.

### **BCAR3 Antibody - References**

van Agthoven T.,et al.EMBO J. 17:2799-2808(1998).  
Lu Y.,et al.J. Biol. Chem. 274:10047-10052(1999).  
Clark H.F.,et al.Genome Res. 13:2265-2270(2003).  
Bechtel S.,et al.BMC Genomics 8:399-399(2007).  
Gregory S.G.,et al.Nature 441:315-321(2006).