

MOUSE Bcar3 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP20947c

Product Information

| Application | WB, E |
|-------------------|-------------------|
| Primary Accession | <u>Q9QZK2</u> |
| Reactivity | Human, Rat, Mouse |
| Host | Rabbit |
| Clonality | Polyclonal |
| Isotype | Rabbit IgG |
| Clone Names | RB43280 |
| Calculated MW | 92263 |
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Additional Information

| Gene ID | 29815 |
|--------------------|---|
| Other Names | Breast cancer anti-estrogen resistance protein 3, p130Cas-binding protein AND-34, Bcar3, And34 |
| Target/Specificity | This MOUSE Bcar3 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 785-818 amino acids from the C-terminal region of human MOUSE Bcar3. |
| Dilution | WB~~1:1000 E~~Use at an assay dependent concentration. |
| Format | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification. |
| Storage | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| Precautions | MOUSE Bcar3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures. |

Protein Information

| Name | Bcar3 |
|----------|---|
| Synonyms | And34 |
| Function | Acts as an adapter protein downstream of several growth factor receptors to promote cell proliferation, migration, and redistribution of actin fibers (PubMed: <u>12517963</u>). Specifically involved in INS/insulin signaling pathway by |

| | mediating MAPK1/ERK2-MAPK3/ERK1 activation and DNA synthesis (By similarity). 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: <u>10896938</u>). Inhibits cell migration and invasion via regulation of TGFB-mediated matrix digestion, actin filament rearrangement, and inhibition of invadopodia activity (PubMed: <u>25499443</u>). May inhibit TGFB-SMAD signaling, via facilitating BCAR1 and SMAD2 and/or SMAD3 interaction (PubMed: <u>25499443</u>). Regulates EGF-induced DNA synthesis (By similarity). Required for the maintenance of ocular lens morphology and structural integrity, potentially via regulation of focal adhesion complex signaling (PubMed: <u>19365570</u>). Acts upstream of PTPRA to regulate the localization of BCAR1 and PTPRA to focal adhesions, via regulation of SRC-mediated phosphorylation of PTPRA (PubMed: <u>22801373</u>). Positively regulates integrin-induced tyrosine phosphorylation of BCAR1 (PubMed: <u>22801373</u>). Acts as a guanine nucleotide exchange factor (GEF) for small GTPases RALA, RAP1A and RRAS (PubMed: <u>10896938</u>). However, in a contrasting study, lacks GEF activity towards RAP1 (By similarity). |
|-------------------|---|
| Cellular Location | Cytoplasm. Cell junction, focal adhesion Note=Localization to focal adhesions depends on interaction with PTPRA |
| Tissue Location | Abundantly expressed in the lung and brain, with lower expression in splenic lymphocytes and liver (at protein level) (PubMed:19365570). Expressed in splenic lymphocytes (at protein level) (PubMed:19365570). Expressed in the lymph node cortical region, periphery of the splenic white pulp and in alveolar lung fibroblasts (PubMed:19365570). Expressed in epithelial cells in the lens equatorial region and early stage nucleated cortical lens fiber cells (PubMed:19365570). Expressed in the thymus (PubMed:10438950). Expressed in B-cells (PubMed:12517963). |

Background

May act as an adapter protein and couple activated growth factor receptors to signaling molecules that regulate src kinase activity and promote cell migration.

References

Cai D.,et al.J. Immunol. 163:2104-2112(1999). Carninci P.,et al.Science 309:1559-1563(2005). Gotoh T.,et al.J. Biol. Chem. 275:30118-30123(2000). Cai D.,et al.J. Immunol. 170:969-978(2003).

Images

Western blot analysis of lysates from mouse spleen tissue lysate, using MOUSE Bcar3 Antibody (C-term)(Cat. #AP20947c). AP20947c was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.



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