abcam

Product datasheet

Anti-BCAR1 antibody [M144] ab31831

5 References 3 Images

Overview

Product name	Anti-BCAR1 antibody [M144]
Description	Mouse monoclonal [M144] to BCAR1
Host species	Mouse
Specificity	ab31831 detects a 130 kDa protein corresponding to the molecular mass of p130 Cas on SDS-PAGE immunoblots of human A431, endothelial, and Hct116 cells.
Tested applications	**Suitable for:** IHC-P, Flow Cyt (Intra), WB
Species reactivity	**Reacts with:** Human
Immunogen	Fusion protein corresponding to Rat BCAR1 aa 600-850 (C terminal). Database link: **Q63767**
Epitope	ab31831 recognises an epitope located in teh C terminal region of BCAR1.
Positive control	Human A431, endothelial, and Hct116 cells. IHC-P: Human testis tissue sections. Flow Cyt (intra): MCF7 cells
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.05% Sodium azide Constituents: PBS, 50% Glycerol, 0.1% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	M144
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab31831 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		1/250.
Flow Cyt (Intra)		1/100. **ab170190** - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
WB		1/1000. Predicted molecular weight: 93 kDa.

Target

Function
Docking protein which plays a central coordinating role for tyrosine kinase-based signaling related to cell adhesion. Implicated in induction of cell migration. Overexpression confers antiestrogen resistance on breast cancer cells.

Tissue specificity
Widely expressed with an abundant expression in the testis. Low level of expression seen in the liver, thymus, and peripheral blood leukocytes. The protein has been detected in a B-cell line.

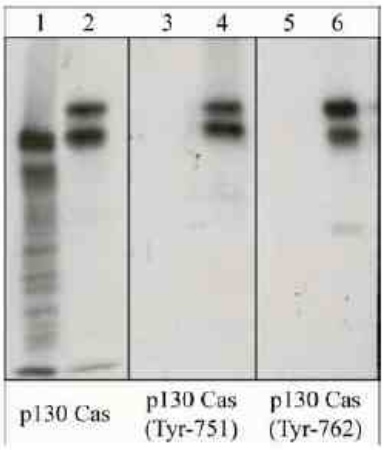
Sequence similarities
Belongs to the CAS family.
Contains 1 SH3 domain.

Domain
Contains a central domain (substrate domain) containing multiple potential SH2-binding sites and a C-terminal domain containing a divergent helix-loop-helix (HLH) motif. The SH2-binding sites putatively bind CRK, NCK and ABL1 SH2 domains. The HLH motif is absolutely required for the induction of pseudohyphal growth in yeast and mediates heterodimerization with NEDD9.
A serine-rich region promotes activation of the serum response element (SRE).
The SH3 domain is necessary for the localization of the protein to focal adhesions and interacts with one proline-rich region of PTK2/FAK11.

Post-translational modifications
PTK2/FAK1 activation mediates phosphorylation at the YDYVHL motif; phosphorylation is most likely catalyzed by SRC family members. SRC-family kinases are recruited to the phosphorylated sites and can phosphorylate other tyrosine residues. Tyrosine phosphorylation is triggered by integrin-mediated adhesion of cells to the extracellular matrix.
Dephosphorylated by PTPN14 at Tyr-128.

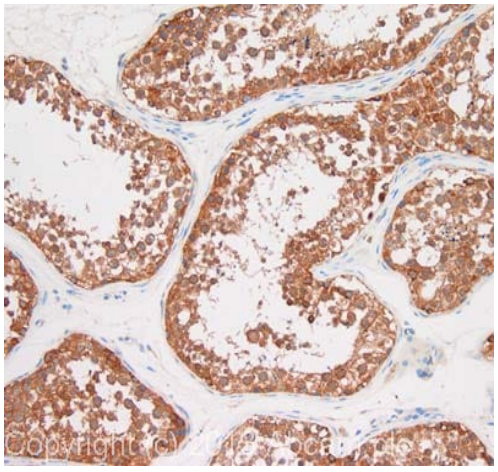
Cellular localization
Cell junction, focal adhesion. Cytoplasm. Unphosphorylated form localizes in the cytoplasm and can move to the membrane upon tyrosine phosphorylation.

Images



Western blot - Anti-BCAR1 antibody [M144] (ab31831)

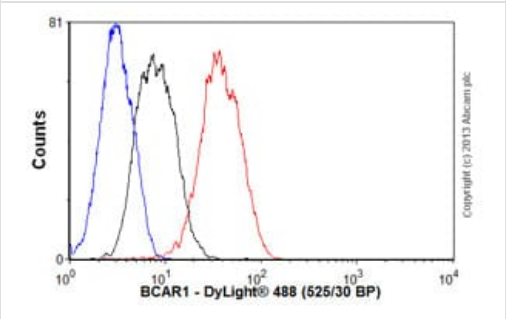
Western blot analysis of human endothelial cells serum starved overnight (lanes 1, 3, & 5) or treated with pervanadate (1 mM) for 30 minutes (lanes 2, 4, & 6). The blot was probed with anti-BCAR1 (ab31831; lanes 1 & 2), anti-BCAR1 (Tyr-751) (lanes 3 & 4) or anti-BCAR1 (Tyr-762) (lanes 5 & 6).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BCAR1 antibody [M144] (ab31831)

IHC image of BCAR1 staining in human testis formalin fixed paraffin embedded tissue section, performed on a Leica Bond system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab31831, 1/200 dilution, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Flow Cytometry (Intracellular) - Anti-BCAR1 antibody [M144] (ab31831)

Overlay histogram showing MCF7 cells stained with ab31831 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab31831, 1/100 dilution) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (**ab96879**) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (**ab91353**, 2µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line). Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors