abcam

ab9526

Anti-EBP50/NHERF-1 antibody [EBP-10]

Key facts

Isotype	IgG2b
Host species	Mouse
Storage buffer	pH: 7.4 Preservative: 0.097% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Full Length Protein corresponding to Human NHERF1. Database link O14745
Clone number	EBP-10
Purification technique	Affinity purification Protein A
Specificity	Human ERM (ezrin/radixin/moesin)-binding phosphoprotein of 50 kDa (EBP50) / Na+/H+ exchange regulatory factor (NHERF-1)
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from hybridoma culture supernatant. Purity >95% by SDS-PAGE.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1 µg for 10^6 Cells

Notes	ab170192 - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.

WB

Tested

Species	Human
Dilution info	-
Notes	Recommended dilution: 2µg/ml. Sample preparation: Lysis buffer with maltoside (1%).Application note: Non-reducing conditions with SDS-PAGE (10% separating gel).

Target data

See full target information NHERF1

Function	Scaffold protein that connects plasma membrane proteins with members of the ezrin/moesin/radixin family and thereby helps to link them to the actin cytoskeleton and to regulate their surface expression. Necessary for recycling of internalized ADRB2. Was first known to play a role in the regulation of the activity and subcellular location of SLC9A3. Necessary for cAMP-mediated phosphorylation and inhibition of SLC9A3. May enhance Wnt signaling. May participate in HTR4 targeting to microvilli (By similarity). Involved in the regulation of phosphate reabsorption in the renal proximal tubules. Involved in sperm capacitation. May participate in the regulation of the chloride and bicarbonate homeostasis in spermatozoa.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	EBP50 also known as NHERF-1 (Na+/H+ exchanger regulatory factor 1) is a scaffolding protein with a mass of approximately 50 kDa. This protein plays a critical role in the formation of multiprotein complexes by its ability to bind to several different proteins simultaneously. EBP50 localizes primarily to the apical surface of epithelial cells where it is found in organs such as the kidney liver and intestines. It consists of two PDZ domains and an ezrin-binding domain which enable it to interact with various membrane proteins cytoskeletal elements and signaling molecules.
Biological function summary	EBP50 regulates cellular functions by organizing signaling complexes at the plasma membrane. It is involved in processes such as ion transport signal transduction and cell proliferation. EBP50 often acts as part of a multiprotein complex contributing to the stabilization and regulation of membrane receptors and channels. By regulating these components EBP50 affects a variety of cellular responses to external stimuli.
Pathways	EBP50 plays important roles in cellular signaling pathways like the PTH (parathyroid hormone) receptor signaling and CFTR (cystic fibrosis transmembrane conductance regulator) channel regulation. It interacts with proteins such as ezrin and PLCβ (phospholipase C beta) which facilitates the signaling cascades critical for maintaining proper cell function. By modulating these pathways EBP50 has a significant impact on maintaining cellular homeostasis and responding to changing physiological conditions.
Associated diseases and disorders	EBP50 has been linked to conditions such as cystic fibrosis and certain cancers. With cystic fibrosis its interaction with CFTR is essential for the proper regulation of chloride channels and subsequently fluid balance in epithelial tissues. In cancer altered expression or mutations in EBP50 can affect pathways related to cell growth and metastasis highlighting interactions with the ezrin protein which couples signals from the cell membrane to actin cytoskeleton dynamics impacting tumor progression.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

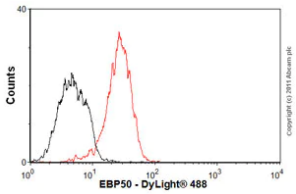
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
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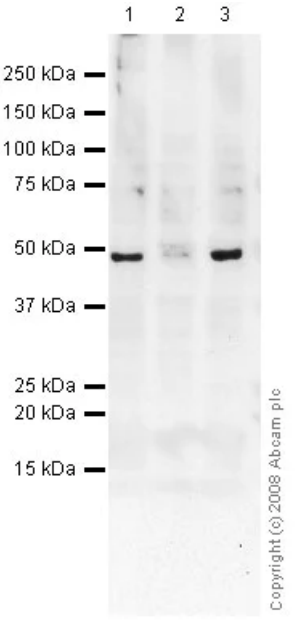
2 product images



Flow Cytometry - Anti-EBP50/NHERF-1 antibody [EBP-10] (ab9526)

EBP50/NHERF-1 Flow Cytometry staining using mouse Anti-EBP50/NHERF-1 antibody

Overlay histogram showing HepG2 cells stained with ab9526 (red line). The cells were fixed with 80% methanol (5 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 (ab9526, 1µg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG2b [PLPV219] (ab91366, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.



Western blot - Anti-EBP50/NHERF-1 antibody [EBP-10] (ab9526)

All lanes:
Western blot - Anti-EBP50/NHERF-1 antibody [EBP-10] (ab9526) at 2 µg/mL

Lane 1:
HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate at 10 µg

Lane 2:
HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate at 10 µg

Lane 3:
Caco 2 (Human colonic carcinoma cell line) Whole Cell Lysate at 10 µg

Secondary

All lanes:
Goat polyclonal to Mouse IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Predicted band size: 38 kDa

Observed band size: 48 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.