Technical Data Sheet

# Purified Mouse Anti-EBP50

## Product Information

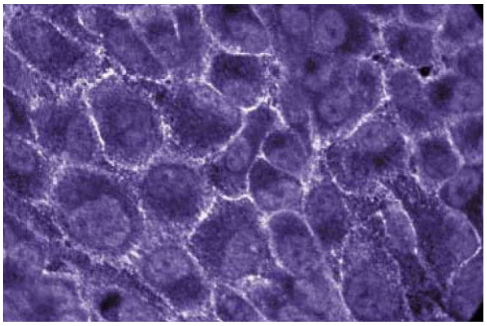
| | |
|---|---|
| **Material Number:** | **611161** |
| **Size:** | 150 µg |
| **Concentration:** | 250 µg/ml |
| **Clone:** | 6/EBP50 |
| **Immunogen:** | Human EBP50 aa. 128-249 |
| **Isotype:** | Mouse IgG1 |
| **Reactivity:** | QC Testing: Human |
| **Target MW:** | 50-53 kDa |
| **Storage Buffer:** | Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide. |

## Description

Integral plasma membrane proteins are stabilized by linkages to the cortical actin cytoskeleton, which structurally supports the membrane and contributes to processes such as endocytosis, exocytosis, and transmembrane signaling. The ERM (ezrin-radixin-moesin) family of proteins provides these structural linkages. The ERM proteins contain a 300-residue N-terminal domain, a 170-residue α-helical region, and a C-terminal 100-residue domain that contains F-actin binding sites. The N-terminal domain interacts with the cytoplasmic domain of CD44, the regulatory subunit of PKA, and the PDZ domain containing **E**RM-**b**inding **p**hosphoprotein (EBP-50). In polarized epithelial cells, EBP-50 links ezrin and the cytoplasmic regions of transmembrane proteins such as the cystic fibrosis transmembrane conductance regulator (CFTR) and the β2-adrenergic receptor. EBP50 contains two PDZ domains followed by a C-terminal tail. It colocalizes with ezrin in apical microvilli and is also thought to interact with the Na+-H+ exchanger NHE3 to confer cAMP-mediated inhibition of Na+-H+ exchange. Thus, EBP-50 mediates membrane attachment to the cytoskeleton and may also function in the regulation of ion exchange.

This antibody is routinely tested in western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.


***Western blot analysis of EBP50 on human endothelial cell lysate.*** *Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of anti-EBP50.*



***Immunofluroescent staining of Human Endothelial cells with anti-EBP50.***

## Preparation and Storage

Store undiluted at -20° C.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

**BD Biosciences**

**www.bdbiosciences.com**

| United States | Canada | Europe | Japan | Asia Pacific | Latin America/Caribbean |
|---|---|---|---|---|---|
| 877.232.8995 | 888.259.0187 | 32.53.720.550 | 0120.8555.90 | 65.6861.0633 | 55.11.5185.9995 |

For country-specific contact information, visit **www.bdbiosciences.com/how_to_order/**

## Application Notes

**Application**

| | |
|---|---|
| Western blot | Routinely Tested |
| Immunofluorescence | Tested During Development |

## Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|---|---|---|---|
| 611450 | Human Endothelial Cell Lysate | 500 µg | (none) |
| 554002 | HRP Goat Anti-Mouse Ig | 1.0 ml | (none) |
| 554001 | FITC Goat Anti-Mouse Ig | 0.5 mg | Polyclonal |

## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

## References


Bretscher A, Reczek D, Berryman M. Ezrin: a protein requiring conformational activation to link microfilaments to the plasma membrane in the assembly of cell surface structures. *J Cell Sci.* 1997; 110(Pt 24):3011-3018.(Biology)

Glynne PA, Darling KE, Picot J, Evans TJ. Epithelial inducible nitric-oxide synthase is an apical EBP50-binding protein that directs vectorial nitric oxide output. *J Biol Chem.* 2002; 277(36):33132-33138.(Clone-specific: Immunofluorescence, Western blot)

Naren AP, Cobb B, Li C. A macromolecular complex of beta 2 adrenergic receptor, CFTR, and ezrin/radixin/moesin-binding phosphoprotein 50 is regulated by PKA. *Proc Natl Acad Sci U S A.* 2003; 100(1):342-346.(Clone-specific: ELISA, Western blot)

Reczek D, Berryman M, Bretscher A. Identification of EBP50: A PDZ-containing phosphoprotein that associates with members of the ezrin-radixin-moesin family. *J Cell Biol.* 1997; 139(1):169-179.(Biology)

Reczek D, Bretscher A. The carboxyl-terminal region of EBP50 binds to a site in the amino-terminal domain of ezrin that is masked in the dormant molecule. *J Biol Chem.* 1998; 273(29):18452-18458.(Biology)