

Mouse Anti-NHERF1/EBP50 [MD408]: MC0097

Intended Use: For Research Use Only

Description: NHERF1 (Na⁺/H⁺ exchanger regulatory factor 1), also known as EBP50 (ezrin, radixin, moesin-binding phosphoprotein 50) is an adaptor protein, plays a crucial role in regulating the Na⁺/H⁺ exchange protein (NHE3), which is essential for transepithelial sodium absorption, primarily in the intestinal and renal brush border membranes. NHERF1 inhibits cell motility and is required to suppress anchorage-independent growth. NHERF1 facilitates the cAMP-mediated inhibition of NHE3, thereby decreasing sodium absorption, which is vital for maintaining electrolyte balance and fluid homeostasis in the body. Additionally, NHERF1 acts as a scaffold for a multiprotein complex that includes Ezrin and NHE3, promoting cAMP-mediated phosphorylation and subsequent inhibition of NHE3 activity. The amino-terminal PDZ domain of NHERF1 is critical for dimerization in vivo, while phosphorylation at Ser 289 by G protein-coupled receptor kinase 6A enhances regulatory functions.

Specifications

Clone:	MD408
Source:	Mouse
Isotype:	IgG1k
Reactivity:	Human, mouse, rat
Immunogen:	The C-terminus aa 241-340 of human NHERF1 protein
Localization:	Cytoplasm
Formulation:	Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN ₃)
Storage:	Store at 2°- 8°C
Applications:	IHC, ELISA, IF, IP, WB
Package:	

Description	Catalog No.	Size
NHERF1/EBP50 Concentrated	MC0097	1 ml

IHC Procedure

Positive Control:	Breast carcinoma, placenta, kidney, gall bladder tissue
Concentrated Dilution:	25-200
Pretreatment:	Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C
Incubation Time and Temp:	30-60 minutes @ RT
Detection:	Refer to the detection system manual
* Result should be confirmed by an established diagnostic procedure.	



FFPE human gall bladder tissue stained with anti-NHERF1 using DAB

References:

1. Analysis of NIS Plasma Membrane Interactors Discloses Key Regulation by a SRC/RAC1/PAK1/PIP5K/EZRIN Pathway with Potential Implications for Radioiodine Re-Sensitization Therapy in Thyroid Cancer. Márcia Faria, et al. Cancers (Basel). Oct 30;13(21):5460, 2021. doi: 10.3390/cancers13215460.
2. CXCR2 macromolecular complex in pancreatic cancer: a potential therapeutic target in tumor growth. Shuo Wang, Transl Oncol. Apr;6(2):216-25, 2013. doi: 10.1593/tlo.13133.

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