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ENaC alpha Antibody
ENaC alpha Antibody, Clone 14E10
Catalog # ASM10166

Specification

ENaC alpha Antibody - Product Information

Application	**WB, IHC**
Primary Accession	Q6IRJ1
Other Accession	NP_113736
Host	**Mouse**
Isotype	**IgG1**
Reactivity	**Mouse, Rat**
Clonality	**Monoclonal**

Description
Mouse Anti-Rat ENaC alpha Monoclonal IgG1

Target/Specificity
Detects ~85kDa.

Other Names
SCNN1A Antibody, Epithelial Sodium Channel-α Antibody, Epithelial Sodium Channel alpha Antibody, Alpha ENaC 2 Antibody, Alpha ENaC Antibody, Alpha NaCH Antibody, Alpha-ENaC Antibody, Amiloride sensitive epithelial sodium channel alpha subunit Antibody, Amiloride sensitive sodium channel subunit alpha Antibody, Amiloride-sensitive sodium channel subunit alpha Antibody, ENaCa Antibody, ENaCalpha Antibody, Epithelial Na(+) channel subunit alpha Antibody, Epithelial Na+ channel subunit alpha Antibody, FLJ21883 Antibody, Nonvoltage gated sodium channel 1 subunit alpha Antibody, Nonvoltage-gated sodium channel 1 subunit alpha Antibody, SCNEA Antibody, SCNN 1 Antibody, SCNN1 Antibody, SCNN1A Antibody, SCNNA_HUMAN Antibody, Sodium channel nonvoltage gated 1 alpha Antibody

Immunogen
Synthetic peptide from the N-terminal of Rat ENaC alpha (aa. 46-68)

Purification
Protein G Purified

Storage	**-20ºC**

Storage Buffer
PBS pH7.4, 50% glycerol, 0.09% sodium azide

Shipping Temperature	**Blue Ice or 4ºC**

Certificate of Analysis
A 1:1000 dilution of SMC-242 was sufficient for detection of ENaC alpha in 15 µg of Mouse whole kidney lysate by ECL immunoblot analysis using goat anti-mouse IgG:HRP as the secondary antibody.

Cellular Localization
Apical Cell Membrane

ENaC alpha Antibody - Protocols

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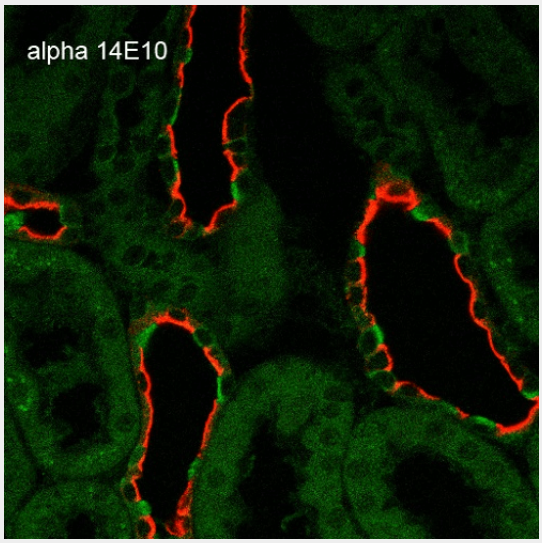
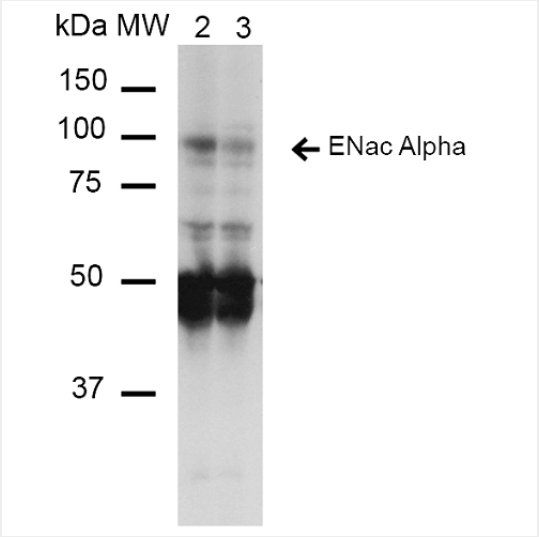
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ENaC alpha Antibody - Images



Immunohistochemistry analysis using Mouse Anti-ENaC alpha Monoclonal Antibody, Clone 14E10 (ASM10166). Tissue: Kidney. Species: Rat. Fixation: Paraffin-embedded formalin-fixed. Primary Antibody: Mouse Anti-ENaC alpha Monoclonal Antibody (ASM10166) at 1:100. Secondary Antibody: Goat Anti-Mouse ATTO 488 (green). Localization: Intercalated cells. Aquaporin 2 Antibody staining in red.



Western Blot analysis of Mouse Whole kidney homogenates showing detection of ~85kDa ENaC alpha protein using Mouse Anti-ENaC alpha Monoclonal Antibody, Clone 14E10 (ASM10166). Lane

1: Molecular Weight Ladder (MW). Lane 2: Low-salt diet. Lane 3: Normal-salt diet. Load: 20 µg. Primary Antibody: Mouse Anti-ENaC alpha Monoclonal Antibody (ASM10166) at 1:1000. Predicted/Observed Size: ~85kDa.

ENaC alpha Antibody - Background

The Epithelial Sodium Channel (ENaC) is a membrane ion channel permeable to Na+ ions. It is located in the apical plasma membrane of epithelia in the kidneys, lung, colon, and other tissues where it plays a role in trans epithelial Na+-ion transport (1). Specifically Na+ transport via ENaC occurs across many epithelial surfaces, and plays a key role in regulating salt and water absorption (2).
ENaCs are composed of three structurally related subunits that form a tetrameric channel, alpha, beta, and gamma. The expression of its alpha and beta subunits is enhanced as keratinocytes differentiate (3, 4). The beta and gamma-ENaC subunits are essential for edema fluid to exert its maximal effect on net fluid absorption by distal lung epithelia(5). And it has been concluded that the subunits are differentially expressed in the retina of mice with ocular hypertension, therefore the up-regulation of alpha-ENaC proteins could serve as a protection mechanism against elevated intraocular pressure (6).

ENaC alpha Antibody - References

1. Kakizoe Y., et al. (2009) J Hpyertens. 27(8): 1679-1689.
2. Gu Y. (2008) J Cell Physiol. 216(2):453-457.
3. Bruns J.B. (2003) Am J Physiol Renal Physiol. 285(4): F600-F609.
4. Mauro T., et al. (2002) J Invest Dermatol. 118(4): 589-594.
5. Elias N., et al. (2007) Am J Physiol Lung Cell Mol Physiol. 293(3): L537-45.
6. Dyka F.M., May C.A. and Enz R. (2005) J Neurochem. 94(1): 120-128.