

Datasheet for ABIN863204

anti-SCNN1A antibody (AA 629-650)

5 Images

19 Publications

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Overview

Quantity:	100 µg
Target:	SCNN1A
Binding Specificity:	AA 629-650
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This SCNN1A antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Immunogen:	Produced against the C-terminal tail (amino acids 629-650) of rat gamma ENaC (antibody designation L550)
Specificity:	Detects ~83 kDa.
Cross-Reactivity:	Hamster, Human, Mouse, Rat, Xenopus laevis
Purification:	Protein A Purified

Target Details

Target:	SCNN1A
Alternative Name:	ENaC (SCNN1A Products)

Target Details

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, α , β , and γ . 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).

Gene ID: 24768

NCBI Accession: [NP_058742](#)

UniProt: [P37091](#)

Application Details

Application Notes:

- WB (1:1000)
- IHC (1:100)
- optimal dilutions for assays should be determined by the user.

Comment: 1 µg/ml of ABIN863204 was sufficient for detection of gamma-ENaC in 20 µg of rat kidney tissue lysate by colorimetric immunoblot analysis using Goat anti-rabbit IgG:HRP as the secondary antibody.

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 1 mg/mL

Buffer: PBS, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling

Storage: -20 °C

Storage Comment: -20°C

Publications

Product cited in: Khedr, Palygin, Pavlov, Blass, Levchenko, Alsheikh, Brands, El-Meanawy, Staruschenko: "Increased ENaC activity during kidney preservation in Wisconsin solution." in: **BMC nephrology**, Vol. 20, Issue 1, pp. 145, (2020) ([PubMed](#)).

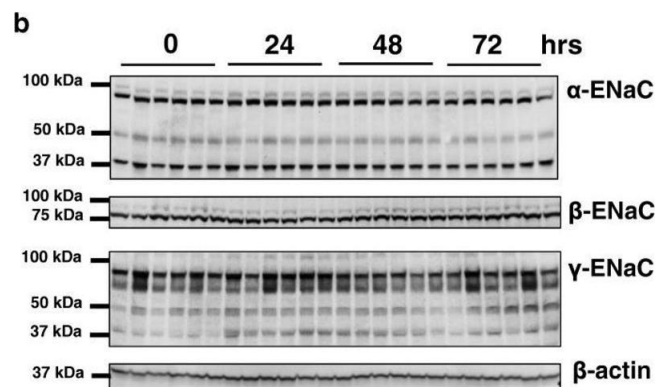
Blass, Klemens, Brands, Palygin, Staruschenko: "Postprandial Effects on ENaC-Mediated Sodium Absorption." in: **Scientific reports**, Vol. 9, Issue 1, pp. 4296, (2019) ([PubMed](#)).

Pavlov, Levchenko, Ilatovskaya, Moreno, Staruschenko: "Renal sodium transport in renin-deficient Dahl salt-sensitive rats." in: **Journal of the renin-angiotensin-aldosterone system : JRAAS**, Vol. 17, Issue 3, (2017) ([PubMed](#)).

Zhang, Sun, Ding, Huang, Zhang, Jia: "Inhibition of Mitochondrial Complex-1 Prevents the Downregulation of NKCC2 and ENaC α in Obstructive Kidney Disease." in: **Scientific reports**, Vol. 5, pp. 12480, (2015) ([PubMed](#)).

Carattino, Mueller, Palmer, Frindt, Rued, Hughey, Kleyman: "Prostasin interacts with the epithelial Na⁺ channel and facilitates cleavage of the γ -subunit by a second protease." in: **American journal of physiology. Renal physiology**, Vol. 307, Issue 9, pp. F1080-7, (2014) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)

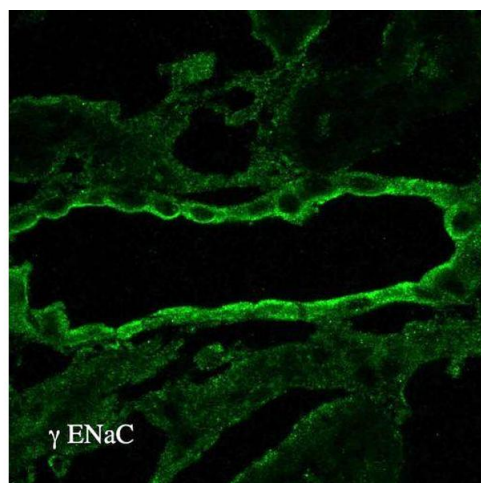
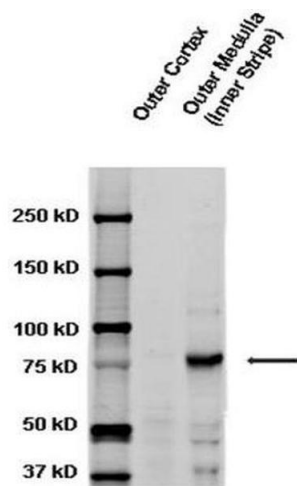


Western Blotting

Image 1. The expression of ENaC subunits after preservation in UW solution. a RT-PCR analysis of mRNA expression of α -, β -, and γ -ENaC subunits after cold static preservation in UW solution for different time points, n=6 kidneys (1 kidney/rat) in each group. b Western blot analysis of ENaC expression in kidney total lysates isolated from SD rats after cold static kidney preservation in UW solution for 0, 24, 48, and 72 h. Each lane represents one kidney - figure provided by CiteAb. Source: PMID31035971

Western Blotting

Image 2. Western blot analysis of Rat kidney tissue lysates showing detection of ENaC protein using Rabbit Anti-ENaC Polyclonal Antibody . Primary Antibody: Rabbit Anti-ENaC Polyclonal Antibody at 1:1000.



Immunohistochemistry

Image 3. Immunohistochemistry analysis using Rabbit Anti-ENaC Polyclonal Antibody . Tissue: kidney tissue. Species: Rat. Primary Antibody: Rabbit Anti-ENaC Polyclonal Antibody at 1:100. Secondary Antibody: FITC Goat Anti-Rabbit (green).

Please check the [product details page](#) for more images. Overall 5 images are available for ABIN863204.