

Anti-Beta ENaC (Scnn1b) Catalog# SPC-404D

Size: 100µg

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This product is for *in vitro* research use only and is not intended for use in humans or animals

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| Product | Rabbit anti-Beta ENaC (Scnn1b) polyclonal antibody |
| Clone | N/A |
| Immunogen | Produced against the C-terminal tail of rat beta ENaC (antibody designation 3755-2). AA617-638. |
| Host and Subclass | Rabbit |
| Cited Applications | WB, IHC, IP, IF |
| Specificity | Detects ~87kDa. |
| Species cross-reactivity | Mouse, Rat |
| Format | Affinity Purified in PBS, 50% glycerol and 0.09% sodium azide |
| Concentration and Working dilution | 1mg/mL 1:1000 (WB) |
| Storage and stability | -20°C; 1 year+; shipped on cold packs or ambient |

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).

Selected References

1. Kakizoe Y., *et al.* (2009) *J Hypertens.* 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.

Scientific 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 transepithelial 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).

Certificate of Analysis

1 µg/mL of SPC-404 was sufficient for detection of beta-ENaC in 20µg of rat kidney tissue lysate by colorimetric immunoblot analysis using Goat anti-rabbit IgG:HRP as the secondary antibody.

Material Safety Data Sheet

Anti-Beta ENaC (Polyclonal Antibody) SPC-404

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The below information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. StressMarq shall not be held liable for any damage resulting from handling or from contact with the above product. See the Technical Specification, Packing Slip, Invoice, and Product Catalogue for additional terms and conditions of sale.

Hazardous Ingredients

The physical, chemical and toxicological properties of these components have not been fully investigated. It is recommended that all laboratory personnel follow standard laboratory safety procedures when handling this product. Safety procedures should include wearing OSHA approved safety glasses, gloves and protective clothing. Direct physical contact with this product should be avoided.

| <u>Known Hazardous Components</u> | <u>CAS Number</u> | <u>Percent</u> |
|-----------------------------------|-------------------|----------------|
| None | | |

Physical Data

This product consists of rabbit immunoglobulin in 50% glycerol shipped on gel packs. The physical properties of this product have not been investigated thoroughly.

Fire and Explosion Hazard and Reactivity Data

NOT APPLICABLE

Toxicological Properties

May be harmful by inhalation, ingestion, or skin absorption. The toxicological properties of this product have not been investigated thoroughly. Exercise due caution.

Preventative Measures

Wear chemical safety goggles and compatible chemical-resistant gloves. Avoid inhalation, contact with eyes, skin or clothing.

Spill and Leak Procedures

Observe all federal, state and local environmental regulations.

- Wear protective equipment.
- Absorb on sand or vermiculite and place in closed containers for disposal.
- Dispose or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

First Aid Measures

- If swallowed, wash out mouth with water, provided person is conscious. Call a physician.
- In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. If a rash or other irritation develops, call a physician.
- If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
- In case of eye contact, flush with copious amounts of water for at least 15 minutes while separating the eyelids with fingers. Call a physician.

Authorized: StressMarq Biosciences Inc.
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