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SCNN1A Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP8804c

Specification

SCNN1A Antibody (Center) Blocking Peptide - Product Information

Primary Accession P37088

SCNN1A Antibody (Center) Blocking Peptide - Additional Information

Gene ID 6337

Other Names
Amiloride-sensitive sodium channel subunit alpha, Alpha-NaCH, Epithelial Na(+) channel subunit alpha, Alpha-ENaC, ENaCA, Nonvoltage-gated sodium channel 1 subunit alpha, SCNEA, SCNN1A, SCNN1

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP8804c was selected from the Center region of human SCNN1A. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

SCNN1A Antibody (Center) Blocking Peptide - Protein Information

Name SCNN1A

Synonyms SCNN1

Function
Sodium permeable non-voltage-sensitive ion channel inhibited by the diuretic amiloride. Mediates the electrodiffusion of the luminal sodium (and water, which follows osmotically) through the apical membrane of epithelial cells. Plays an essential role in electrolyte and blood pressure homeostasis, but also in airway surface liquid homeostasis, which is important for proper clearance of mucus. Controls the reabsorption of sodium in kidney, colon, lung and eccrine sweat glands. Also plays a role in taste perception.

Cellular Location

Apical cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P37089}. Cell projection, cilium. Cytoplasmic granule. Cytoplasm Cytoplasmic vesicle, secretory vesicle, acrosome {ECO:0000250|UniProtKB:P37089}. Cell projection, cilium, flagellum {ECO:0000250|UniProtKB:P37089}. Note=In the oviduct and bronchus, located on cilia in multi-ciliated cells. In endometrial non-ciliated epithelial cells, restricted to apical surfaces. In epidermis, located nearly uniformly in the cytoplasm in a granular distribution (PubMed:28130590). In sebaceous glands, observed only in the cytoplasmic space in between the lipid vesicles (PubMed:28130590). In eccrine sweat glands, mainly located at the apical surface of the cells facing the lumen (PubMed:28130590). In skin, in arrector pili muscle cells and in adipocytes, located in the cytoplasm and colocalized with actin fibers (PubMed:28130590). In spermatogonia, spermatocytes and round spermatids, located in the cytoplasm (By similarity). Prior to spermiation, location shifts from the cytoplasm to the spermatid tail (By similarity). In spermatozoa, localizes at the acrosome and the central region of the sperm flagellum (By similarity) {ECO:0000250|UniProtKB:P37089, ECO:0000269|PubMed:22207244, ECO:0000269|PubMed:24124190, ECO:0000269|PubMed:28130590}

Tissue Location
Expressed in the female reproductive tract, from the fimbrial end of the fallopian tube to the endometrium (at protein level) (PubMed:22207244). Expressed in kidney (at protein level). In the respiratory tract, expressed in the bronchial epithelium (at protein level). Highly expressed in lung. Detected at intermediate levels in pancreas and liver, and at low levels in heart and placenta (PubMed:22207244). in skin, expressed in keratinocytes, melanocytes and Merkel cells of the epidermal sub-layers, stratum basale, stratum spinosum and stratum granulosum (at protein level) (PubMed:28130590) Expressed in the outer root sheath of the hair follicles (at protein level) (PubMed:28130590). Detected in both peripheral and central cells of the sebaceous gland (at protein level) (PubMed:28130590). Expressed by eccrine sweat glands (at protein level) (PubMed:28130590). In skin, also expressed by arrector pili muscle cells and intradermal adipocytes (PubMed:28130590). Isoform 1 and isoform 2 predominate in all tissues Expression of isoform 3, isoform 4 and isoform 5 is very low or not detectable, except in lung and heart (PubMed:9575806)

SCNN1A Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

SCNN1A Antibody (Center) Blocking Peptide - Images

SCNN1A Antibody (Center) Blocking Peptide - Background

Nonvoltage-gated, amiloride-sensitive, sodium channels control fluid and electrolyte transport across epithelia in many organs. These channels are heteromeric complexes consisting of 3 subunits: alpha, beta, and gamma. This gene encodes the alpha subunit, and mutations in this gene have been sociated with pseudohypoaldosteronism type 1 (PHA1), a rare salt wasting disease resulting from target organ unresponsiveness to mineralocorticoids.

SCNN1A Antibody (Center) Blocking Peptide - References

Azad A.K., et.al., Hum. Mutat. 30:1093-1103(2009).