

Rabbit anti-Human SCNN1A Polyclonal Antibody | anti-SCNN1A antibody

SCNN1A Antibody (Center)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA28784	Rabbit	Human	Western Blot, ELISA, Immunohistochemistry, Immunofluorescence, Flow Cytometry, Functional Assay

PRODUCT SYNONYMS

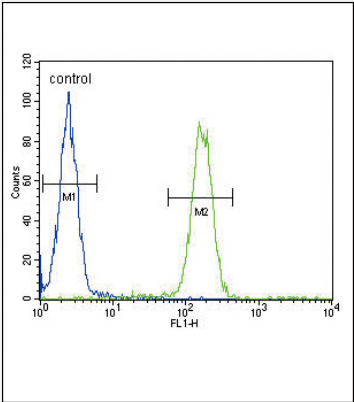
SCNN1A; Polyclonal Antibody; SCNN1A Antibody (Center); Amiloride-sensitive sodium channel subunit alpha; Alpha-NaCH; Epithelial Na(+) channel subunit alpha; Alpha-ENaC; ENaC; Nonvoltage-gated sodium channel 1 subunit alpha; SCNEA; SCNN1; anti-SCNN1A antibody

PRODUCT SPECIFICATIONS

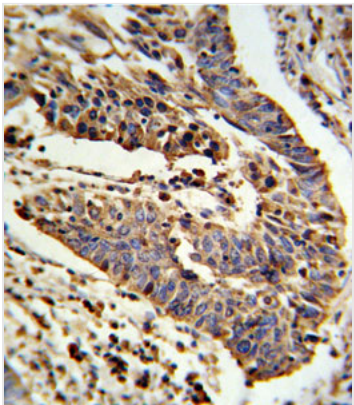
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	Rabbit Ig
Specificity	This SCNN1A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 365-391 amino acids from the Central region of human SCNN1A.
Purity/Purification	Peptide Affinity Purified Rabbit Polyclonal Antibody (Pab)
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Sequence Positions	365-391
Sequence Length	692
Applicable Applications for anti-SCNN1A antibody	WB (Western Blot), ELISA, IHC (Immunohistochemistry), IF (Immunofluorescence), FCM/FACS (Flow Cytometry)
Application Notes	WB~~1:2000 FC~~1:10~50 IHC-P~~1:10~50 IF~~1:10~50
Antigen Type	Synthetic Peptide
Antigen Source	HUMAN
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,
Preparation and Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

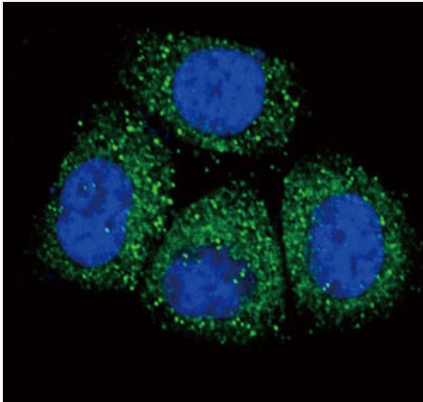
IMAGES



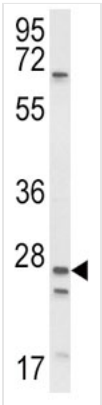
FCM (Flow Cytometry)
SCNN1A Antibody (Center) flow cytometric analysis of WiDr cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



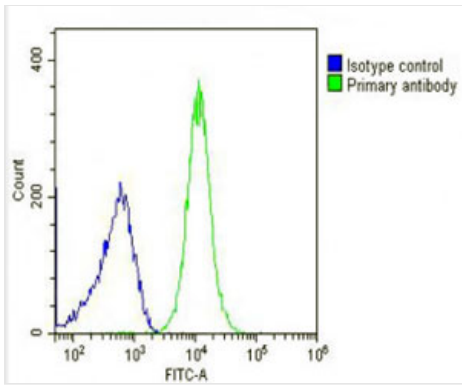
IHC (Immunohistochemistry)
Formalin-fixed and paraffin-embedded human lung carcinoma reacted with SCNN1A Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



IF (Immunofluorescence)
Confocal immunofluorescent analysis of SCNN1A Antibody (Center) with Hela cell followed by Alexa Fluor 489-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).

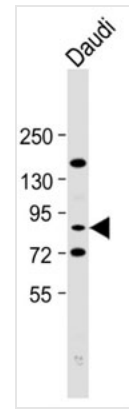


WB (Western Blot)
Western blot analysis of SCNN1A Antibody (Center) in WiDr cell line lysates (35ug/lane). SCNN1A (arrow) was detected using the purified Pab.



FCM (Flow Cytometry)

Overlay histogram showing WiDr cells stained with AAA28784 (green line). The cells were fixed with 2% paraformaldehyde (10 min). The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AAA28784, 1:25 dilution) for 60 min at 37 degree C. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed at 1/200 dilution for 40 min at 37 degree C. Isotype control antibody



WB (Western Blot)

Anti-SCNN1A Antibody (Center) at 1:2000 dilution + Daudi whole cell lysate Lysates/proteins at 20 ug per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 76 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

ADDITIONAL INFORMATION

Related Product Information for anti-SCNN1A antibody	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 associated with pseudohypoaldosteronism type 1 (PHA1), a rare salt wasting disease resulting from target organ unresponsiveness to mineralocorticoids.
Product Categories/Family for anti-SCNN1A antibody	Metabolism ; Neuroscience ; Signal Transduction
References	Azad A.K., et.al., Hum. Mutat. 30:1093-1103(2009).

NCBI AND UNIPROT INFORMATION

NCBI GI #	4506815
NCBI GeneID	6337
NCBI Accession #	NP_001029.1 ; NP_001153047.1 ; NP_001153048.1
NCBI GenBank Nucleotide #	NM_001038.5
UniProt Accession #	P37088 ; O43271 ; Q6GSQ6 ; Q9UM64 ; A5X2U9 ; B4E2Q5 ; C5HTZ0
NCBI Official Full Name	amiloride-sensitive sodium channel subunit alpha isoform 1
NCBI Official Synonym Full Names	sodium channel, non voltage gated 1 alpha subunit
NCBI Official Symbol	SCNN1A
NCBI Official Synonym Symbols	BESC2; ENaCa; SCNEA; SCNN1; ENaCalpha
NCBI Protein Information	amiloride-sensitive sodium channel subunit alpha
UniProt Protein Name	Amiloride-sensitive sodium channel subunit alpha
UniProt Gene Name	SCNN1A
UniProt Synonym Gene Names	SCNN1; Alpha-ENaC; ENaCA
UniProt Entry Name	SCNNA_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

