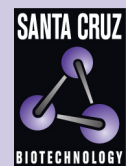


γ ENaC (H-110): sc-21014



The Power to Question

BACKGROUND

The epithelial sodium channel (ENaC) is a member of the ENaC/DEG superfamily that is located on the apical surface of cells. ENaC mediates sodium reabsorption in kidney, distal colon, lung, ducts of exocrine glands and other organs. ENaC is formed by heteromultimerization of four homologous subunits, α , β , γ and δ . The most frequently formed heterotetramer consists of two α , one β and one γ subunit, but the α subunit can be replaced by a δ subunit. The α ENaC gene maps to human chromosome 12p13, and expresses a glycosylated protein. Both the β and γ ENaC genes map to human chromosome 16p12.2, and the γ ENaC transcript is detected as a glycosylated protein. The carboxy-terminus of all ENaC subunits contains PY motifs, which interact with the ubiquitin protein ligase, Nedd4, to regulate intracellular sodium concentrations. Gain-of-function mutations involving the PY motif cause Liddle's syndrome, an autosomal dominant form of hypertension, resulting from excessive renal sodium absorption. Conversely, ENaC loss-of-function mutations result in pseudohypoaldosteronism type I, a disorder characterized by salt wasting and hypotension.

CHROMOSOMAL LOCATION

Genetic locus: SCNN1G (human) mapping to 16p12.2; Scnn1g (mouse) mapping to 7 F2.

SOURCE

γ ENaC (H-110) is a rabbit polyclonal antibody raised against amino acids 411-520 mapping near the C-terminus of γ ENaC of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

γ ENaC (H-110) is recommended for detection of γ ENaC of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

γ ENaC (H-110) is also recommended for detection of γ ENaC in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for γ ENaC siRNA (h): sc-42419, γ ENaC siRNA (m): sc-42420, γ ENaC shRNA Plasmid (h): sc-42419-SH, γ ENaC shRNA Plasmid (m): sc-42420-SH, γ ENaC shRNA (h) Lentiviral Particles: sc-42419-V and γ ENaC shRNA (m) Lentiviral Particles: sc-42420-V.

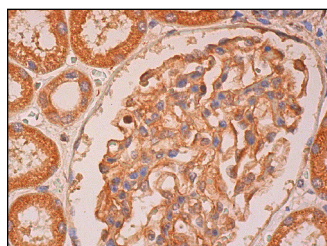
Molecular Weight of γ ENaC: 85 kDa.

Positive Controls: A549 cell lysate: sc-2413, Caki-1 cell lysate: sc-2224 or COLO 320DM cell lysate: sc-2226.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



γ ENaC (H-110): sc-21014. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing membrane and cytoplasmic staining of cells in glomeruli and cytoplasmic staining of cells in tubules.

SELECT PRODUCT CITATIONS

- Laura, B., et al. 2008. Hypoxia-induced modifications in plasma membranes and lipid microdomains in A549 cells and primary human alveolar cells. *J. Cell. Biochem.* 105: 503-513.
- Montaño, J.A., et al. 2009. The expression of ENaC and ASIC2 proteins in Pacinian corpuscles is differently regulated by TrkB and its ligands BDNF and NT-4. *Neurosci. Lett.* 463: 114-118.
- Mu, S., et al. 2011. Epigenetic modulation of the renal β -adrenergic-WNK4 pathway in salt-sensitive hypertension. *Nat. Med.* 17: 573-580.
- Chinigarzadeh, A., et al. 2015. Estrogen, progesterone, and genistein differentially regulate levels of expression of α -, β -, and γ -epithelial sodium channel (ENaC) and α -sodium potassium pump (Na⁺/K⁺-ATPase) in the uteri of sex steroid-deficient rats. *Theriogenology* 84: 911-926.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.