

ACCN5 (Y-16): sc-101880

BACKGROUND

ACCN5 (amiloride-sensitive cation channel 5), also known as INAC (intestine Na⁺ channel) or HINAC (human intestine Na⁺ channel), is a member of the degenerin/epithelial sodium channel (DEG/ENaC) superfamily. DEG/ENaC superfamily members are amiloride-sensitive sodium channels that contain intracellular N- and C-termini, two hydrophobic transmembrane regions and a cysteine-containing extracellular loop. Localizing to the cell membrane, ACCN5 is a multi-pass membrane protein that is expressed in small intestine, jejunum and duodenum. ACCN5 is also expressed at low levels in rectum and testis. Existing as a homo- or heterotetramer, ACCN5 functions as a Na⁺-selective cation channel that, characteristic of its family, can be inhibited by amiloride.

REFERENCES

1. Sakai, H., Lingueglia, E., Champigny, G., Mattei, M.G. and Lazdunski, M. 1999. Cloning and functional expression of a novel degenerin-like Na⁺ channel gene in mammals. *J. Physiol.* 519: 323-333.
2. Schaefer, L., Sakai, H., Mattei, M., Lazdunski, M. and Lingueglia, E. 2000. Molecular cloning, functional expression and chromosomal localization of an amiloride-sensitive Na⁺ channel from human small intestine. *FEBS Lett.* 471: 205-210.
3. Krishtal, O. 2003. The ASICs: signaling molecules? Modulators? *Trends Neurosci.* 26: 477-483.
4. Carattino, M.D., Sheng, S. and Kleyman, T.R. 2004. Epithelial Na⁺ channels are activated by laminar shear stress. *J. Biol. Chem.* 279: 4120-4126.
5. Meltzer, R.H., Kapoor, N., Qadri, Y.J., Anderson, S.J., Fuller, C.M. and Benos, D.J. 2007. Heteromeric assembly of acid-sensitive ion channel and epithelial sodium channel subunits. *J. Biol. Chem.* 282: 25548-25559.
6. Cueva, J.G., Mulholland, A. and Goodman, M.B. 2007. Nanoscale organization of the MEC-4 DEG/ENaC sensory mechanotransduction channel in *Caenorhabditis elegans* touch receptor neurons. *J. Neurosci.* 27: 14089-14098.
7. Folgering, J.H., Sharif-Naeini, R., Dedman, A., Patel, A., Delmas, P. and Honoré, E. 2008. Molecular basis of the mammalian pressure-sensitive ion channels: Focus on vascular mechanotransduction. *Prog. Biophys. Mol. Biol.* 97: 180-195.

CHROMOSOMAL LOCATION

Genetic locus: ACCN5 (human) mapping to 4q32.1.

SOURCE

ACCN5 (Y-16) is a purified rabbit polyclonal antibody raised against ACCN5 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

ACCN5 (Y-16) is recommended for detection of ACCN5 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ACCN5 siRNA (h): sc-89214, ACCN5 shRNA Plasmid (h): sc-89214-SH and ACCN5 shRNA (h) Lentiviral Particles: sc-89214-V.

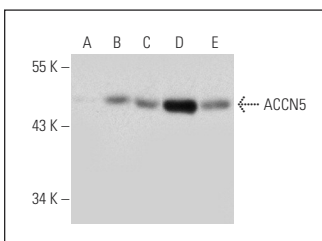
Molecular Weight of ACCN5: 57 kDa.

Positive Controls: ACCN5 (h): 293 Lysate: sc-127919, PC-3 cell lysate: sc-2220 or Jurkat whole cell lysate: sc-2204.

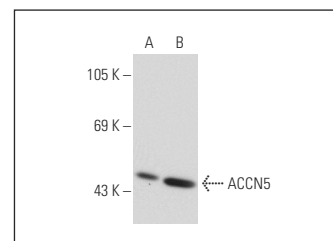
RECOMMENDED SECONDARY REAGENTS

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).

DATA



ACCN5 (Y-16): sc-101880. Western blot analysis of ACCN5 expression in non-transfected: sc-110760 (A), human ACCN5 transfected: sc-127919 (B), K-562 (C), Jurkat (D) and PC-3 (E) whole cell lysates.



ACCN5 (Y-16): sc-101880. Western blot analysis of ACCN5 expression in non-transfected: sc-110760 (A) and human ACCN5 transfected: sc-127919 (B) 293 whole cell lysates.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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