SANTA CRUZ BIOTECHNOLOGY, INC.

SLC12A8 (E-13): sc-103217

BACKGROUND

SLC12A8 (solute carrier family 12 member 8) is a 714 amino acid multi-pass membrane protein that belongs to the SLC12A transporter family. The SLC12A8 protein is nearly ubiquitously expressed with very low level in normal skin, and highest levels in small intestine, stomach, testis, thyroid and colon. SLC12A8 is a cation/chloride cotransporter that may play a role in the control of keratinocyte proliferation. The SLC12A8 protein shows homology to Na/K/Cl cotransporters, a family of membrane proteins responsible for electroneutral ion transport across a variety of cell types. It has been suggested that SLC12A8 could be identified as a candidate gene for psoriasis susceptibility. SLC12A8 is retinoid responsive. Existing as five alternatively spliced isoforms, the SLC12A8 gene is conserved in chimpanzee, canine, bovine, mouse, rat, zebrafish, fruit fly, mosquito and *C. elegans*, and maps to human chromosome 3q21.2. The SLC12A8 gene contains 13 exons and spans over 100 kb.

REFERENCES

1. Hewett, D., et al. 2002. Identification of a psoriasis susceptibility candidate gene by linkage disequilibrium mapping with a localized single nucleotide polymorphism map. Genomics 79: 305-314.
2. Hebert, S.C., et al. 2004. Molecular physiology of cation-coupled Cl^- cotransport: the SLC12 family. Pflugers Arch. 447: 580-593.
3. Hüffmeier, U., et al. 2005. Systematic linkage disequilibrium analysis of SLC12A8 at PSORS5 confirms a role in susceptibility to psoriasis vulgaris. J. Invest. Dermatol. 125: 906-912.
4. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611316. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Nelson, A.M., et al. 2009. Early gene changes induced by isotretinoin in the skin provide clues to its mechanism of action. Dermatoendocrinol. 1: 100-101.
6. Daigle, N.D., et al. 2009. Molecular characterization of a human cation-Cl^- cotransporter (SLC12A8A, CCC9A) that promotes polyamine and amino acid transport. J. Cell. Physiol. 220: 680-689.

CHROMOSOMAL LOCATION

Genetic locus: SLC12A8 (human) mapping to 3q21.2.

SOURCE

SLC12A8 (E-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of SLC12A8 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-103217 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

SLC12A8 (E-13) is recommended for detection of SLC12A8 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SLC12A8 siRNA (h): sc-78346, SLC12A8 shRNA Plasmid (h): sc-78346-SH and SLC12A8 shRNA (h) Lentiviral Particles: sc-78346-V.

Molecular Weight of SLC12A8 isoforms 1/2/3: 78/82/56 kDa.

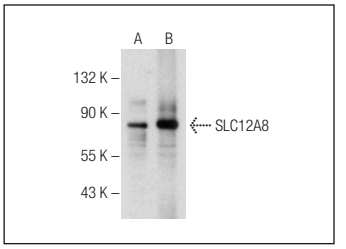
Molecular Weight of SLC12A8 isoforms 4/5: 41/35 kDa.

Positive Controls: SLC12A8 (h): 293T Lysate: sc-112795.

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) 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.

DATA



SLC12A8 (E-13): sc-103217. Western blot analysis of SLC12A8 expression in non-transfected: sc-117752 (**A**) and human SLC12A8 transfected: sc-112795 (**B**) 293T 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.

PROTOCOLS

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