



SLC17A4 (Q-12): sc-132816

BACKGROUND

SLC17A4 (solute carrier family 17 member 4), is a 497 amino acid multi-pass membrane protein that belongs to the sodium/anion cotransporter family of the major facilitator superfamily. Expressed in liver, small intestine, pancreas and colon, SLC17A4 is believed to be involved in active transport of phosphate into cells through a sodium/phosphate cotransport (NPT) system. SLC17A4 shares 54% sequence identity with SLC17A2 (also known as NPT3), 43.5% sequence identity with SLC17A3 (also known as NPT4) and 48% sequence identity with NPT1 (also known as SLC17A1). Due to alternative splicing events, two SLC17A2 isoforms exist.

REFERENCES

1. Shibui, A., Tsunoda, T., Seki, N., Suzuki, Y., Sugane, K. and Sugano, S. 1999. Isolation and chromosomal mapping of a novel human gene showing homology to Na⁺/PO₄ cotransporter. *J. Hum. Genet.* 44: 190-192.
2. Ponsuksili, S., Wimmers, K., Yerle, M. and Schellander, K. 2001. Mapping of 93 porcine ESTs preferentially expressed in liver. *Mamm. Genome* 12: 869-872.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604216. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Elmariah, S. and Gunn, R.B. 2003. Kinetic evidence that the Na-PO₄ cotransporter is the molecular mechanism for Na/Li exchange in human red blood cells. *Am. J. Physiol., Cell Physiol.* 285: C446-C456.
5. Reimer, R.J. and Edwards, R.H. 2004. Organic anion transport is the primary function of the SLC17/type I phosphate transporter family. *Pflugers Arch.* 447: 629-635.

CHROMOSOMAL LOCATION

Genetic locus: SLC17A4 (human) mapping to 6p22.2.

SOURCE

SLC17A4 (Q-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SLC17A4 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-132816 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

SLC17A4 (Q-12) is recommended for detection of SLC17A4 isoforms 1 and 2 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); non cross-reactive with SLC17A2 or SLC17A3.

Suitable for use as control antibody for SLC17A4 siRNA (h): sc-95575, SLC17A4 shRNA Plasmid (h): sc-95575-SH and SLC17A4 shRNA (h) Lentiviral Particles: sc-95575-V.

Molecular Weight of SLC17A4: 54 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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