

SLC26A7 (14H5): sc-53960

BACKGROUND

SLC26A7 (solute carrier family 26, member 7) is a 656 amino acid multi-pass membrane protein that belongs to the SLC26 family of sulfate/anion transporter proteins. Members of this family are structurally well conserved, yet they have markedly different tissue expression patterns. SLC26 family members can mediate the electroneutral exchange of Cl⁻ for HCO₃⁻ across the plasma membrane of mammalian cells. SLC26A7 shares 30% identity with SLC26A2. SLC26A7 is predicted to contain 12 transmembrane regions with internal N- and C-termini. Playing a major role in gastric acid secretion, SLC26A7 is active at both alkaline and acidic pH. Expressed in the cytoplasm in recycling endosomes of medullary collecting duct cells and in acid-secreting gastric parietal cells, SLC26A7 is targeted to the basolateral membrane in hypertonicity and potassium depletion. Existing as two alternatively spliced isoforms, the SLC26A7 gene is conserved in canine, bovine, mouse, rat, chicken and *A. thaliana*, and maps to human chromosome 8q21.3.

REFERENCES

- Vincourt, J.B., et al. 2002. Molecular cloning of SLC26A7, a novel member of the SLC26 sulfate/anion transporter family, from high endothelial venules and kidney. *Genomics* 79: 249-256.
- Lohi, H., et al. 2002. Functional characterization of three novel tissue-specific anion exchangers SLC26A7, -A8 and -A9. *J. Biol. Chem.* 277: 14246-14254.
- Kere, J. 2006. Overview of the SLC26 family and associated diseases. *Novartis Found. Symp.* 273: 2-11.
- Soleimani, M. 2006. Expression, regulation and the role of SLC26 Cl⁻/HCO₃⁻ exchangers in kidney and gastrointestinal tract. *Novartis Found. Symp.* 273: 91-102.

CHROMOSOMAL LOCATION

Genetic locus: SLC26A7 (human) mapping to 8q21.3; Slc26a7 (mouse) mapping to 4 A1.

SOURCE

SLC26A7 (14H5) is a mouse monoclonal antibody raised against the hydrophilic C-terminal 187 amino acids of SLC26A7 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SLC26A7 (14H5) is available conjugated to agarose (sc-53960 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53960 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53960 PE), fluorescein (sc-53960 FITC), Alexa Fluor® 488 (sc-53960 AF488), Alexa Fluor® 546 (sc-53960 AF546), Alexa Fluor® 594 (sc-53960 AF594) or Alexa Fluor® 647 (sc-53960 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53960 AF680) or Alexa Fluor® 790 (sc-53960 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

SLC26A7 (14H5) is recommended for detection of SLC26A7 of mouse, rat and 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for SLC26A7 siRNA (h): sc-72023, SLC26A7 siRNA (m): sc-72024, SLC26A7 shRNA Plasmid (h): sc-72023-SH, SLC26A7 shRNA Plasmid (m): sc-72024-SH, SLC26A7 shRNA (h) Lentiviral Particles: sc-72023-V and SLC26A7 shRNA (m) Lentiviral Particles: sc-72024-V.

Molecular Weight of SLC26A7: 72-73 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

SELECT PRODUCT CITATIONS

- Kaeffer, B., et al. 2011. Non-invasive exploration of neonatal gastric epithelium by using exfoliated epithelial cells. *PLoS ONE* 6: e25562.
- Yin, K., et al. 2015. SLC26A gene family participate in pH regulation during enamel maturation. *PLoS ONE* 10: e0144703.
- Cao, X., et al. 2020. SLC26A7 constitutes the SCN—selective anion conductance of the basolateral membrane of the retinal pigment epithelium. *Am. J. Physiol., Cell Physiol.* E-published.

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 for detailed protocols and support products.