SANTA CRUZ BIOTECHNOLOGY, INC.

SLC26A3 (H-8): sc-376187

BACKGROUND

The SLC26 family comprises sulfate/anion transporter genes. SLC26 family members are well conserved in both their genomic and protein structures, yet have markedly different tissue expression patterns. Members of the SLC26 family can mediate the electroneutral exchange of Cl^- for HCO_3^- across the plasma membrane of mammalian cells. Family members include SLC26A3 (also designated downregulated in adenoma), pendrin (SLC26A4), prestin (SLC26A5) and SLC26A6. SLC26A3 is a chloride/bicarbonate exchanger, involved in absorption in the colon. SLC26A3 interacts with PDZK1 and helps mediate electrolyte and fluid absorption. Defects in SLC26A3 are the cause of congenital chloride diarrhea.

CHROMOSOMAL LOCATION

Genetic locus: SLC26A3 (human) mapping to 7q31.1; Slc26a3 (mouse) mapping to 12 A3.

SOURCE

SLC26A3 (H-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 733-761 at the C-terminus of SLC26A3 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SLC26A3 (H-8) is available conjugated to agarose (sc-376187 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-376187 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376187 PE), fluorescein (sc-376187 FITC), Alexa Fluor® 488 (sc-376187 AF488), Alexa Fluor® 546 (sc-376187 AF546), Alexa Fluor® 594 (sc-376187 AF594) or Alexa Fluor® 647 (sc-376187 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376187 AF680) or Alexa Fluor® 790 (sc-376187 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-376187 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

SLC26A3 (H-8) is recommended for detection of SLC26A3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), 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).

Suitable for use as control antibody for SLC26A3 siRNA (h): sc-45543, SLC26A3 siRNA (m): sc-45544, SLC26A3 shRNA Plasmid (h): sc-45543-SH, SLC26A3 shRNA Plasmid (m): sc-45544-SH, SLC26A3 shRNA (h) Lentiviral Particles: sc-45543-V and SLC26A3 shRNA (m) Lentiviral Particles: sc-45544-V.

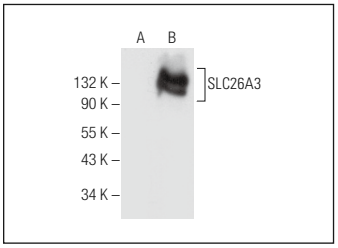
Molecular Weight of SLC26A3: 85 kDa.

Positive Controls: SLC26A3 (h): 293T Lysate: sc-114083.

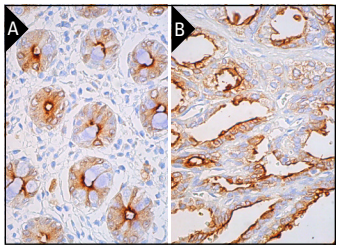
STORAGE

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

DATA



SLC26A3 (H-8): sc-376187. Western blot analysis of SLC26A3 expression in non-transfected: sc-117752 (**A**) and human SLC26A3 transfected: sc-114083 (**B**) 293T whole cell lysates.



SLC26A3 (H-8): sc-376187. Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum (**A**) and human seminal vesicle (**B**) tissue showing apical membrane and cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Jin, H., et al. 2016. Oestrogen upregulates the expression levels and functional activities of duodenal mucosal CFTR and SLC26A6. Exp. Physiol. 101: 1371-1382.
2. Yin, J., et al. 2018. Molecular basis and differentiation-associated alterations of anion secretion in human duodenal enteroid monolayers. Cell. Mol. Gastroenterol. Hepatol. 5: 591-609.
3. Wasiluk, T., et al. 2019. Simultaneous expression of ClopHensor and SLC26A3 reveals the nature of endogenous oxalate transport in CHO cells. Biol. Open 8: bio041665.
4. Kjærgaard, S., et al. 2020. Altered structural expression and enzymatic activity parameters in quiescent ulcerative colitis: are these potential normalization criteria? Int. J. Mol. Sci. 21: 1887.
5. Rahman, M.M., et al. 2021. Mast cell mediated regulation of small intestinal chloride malabsorption in SAMP1/YitFc mouse model of spontaneous chronic ileitis. Cells 10: 697.
6. Liu, Y., et al. 2021. Short-chain fatty acids reduced renal calcium oxalate stones by regulating the expression of intestinal oxalate transporter SLC26A6. mSystems 6: e0104521.
7. Donowitz, M., et al. 2022. Identification of intestinal NaCl absorptive-anion secretory cells: potential functional significance. Front. Physiol. 13: 892112.
8. Salari, A., et al. 2023. Human colonoid-myofibroblast coculture for study of apical Na^+/H^+ exchangers of the lower cryptal neck region. Int. J. Mol. Sci. 24: 4266.
9. Bharadiya, V., et al. 2024. Type 1 diabetes human enteroid studies reveal major changes in the intestinal epithelial compartment. Sci. Rep. 14: 11911.

RESEARCH USE

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