SANTA CRUZ BIOTECHNOLOGY, INC.

SLC26A6 (F-5): sc-515230

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

SLC26A6 (solute carrier family 26, member 6), also known as Pendrin-like protein 1, is a member of a family of sulfate/anion transporter genes. Family members are well conserved in their genomic (number and size of exons) and protein (amino acid length among species) 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. Isoforms of SLC26A6 mediate anion transport and have functional PDZ interaction domains. The gene encoding SLC26A6 undergoes alternative splicing to produce three different isoforms. The human SLC26A6 gene maps to chromosome 3p21.31 and encodes a predicted 738 amino acid transmembrane protein, which is most abundantly expressed in the kidney and pancreas. Pancreatic ductal cell lines Capan-1 and Capan-2 express SLC26A6, which is localized to the apical surface of pancreatic ductal cells.

CHROMOSOMAL LOCATION

Genetic locus: SLC26A6 (human) mapping to 3p21.31; Slc26a6 (mouse) mapping to 9 F2.

SOURCE

SLC26A6 (F-5) is a mouse monoclonal antibody raised against amino acids 497-735 mapping at the C-terminus of SLC26A6 of mouse 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.

SLC26A6 (F-5) is available conjugated to agarose (sc-515230 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515230 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515230 PE), fluorescein (sc-515230 FITC), Alexa Fluor® 488 (sc-515230 AF488), Alexa Fluor® 546 (sc-515230 AF546), Alexa Fluor® 594 (sc-515230 AF594) or Alexa Fluor® 647 (sc-515230 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515230 AF680) or Alexa Fluor® 790 (sc-515230 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

SLC26A6 (F-5) is recommended for detection of SLC26A6 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SLC26A6 siRNA (h): sc-106553, SLC26A6 siRNA (m): sc-108024, SLC26A6 shRNA Plasmid (h): sc-106553-SH, SLC26A6 shRNA Plasmid (m): sc-108024-SH, SLC26A6 shRNA (h) Lentiviral Particles: sc-106553-V and SLC26A6 shRNA (m) Lentiviral Particles: sc-108024-V.

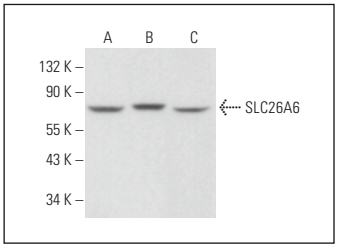
Molecular Weight of SLC26A6: 90 kDa.

Positive Controls: SLC26A6 (m): 293T Lysate: sc-123605, K-562 whole cell lysate: sc-2203 or RAW 264.7 whole cell lysate: sc-2211.

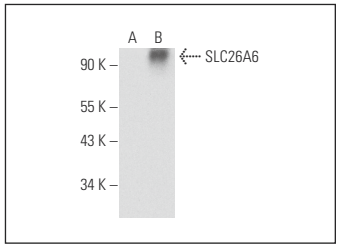
STORAGE

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

DATA



SLC26A6 (F-5): sc-515230. Western blot analysis of SLC26A6 expression in K-562 (**A**), RAW 264.7 (**B**) and C6 (**C**) whole cell lysates.



SLC26A6 (F-5): sc-515230. Western blot analysis of SLC26A6 expression in non-transfected: sc-117752 (**A**) and mouse SLC26A6 transfected: sc-123605 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Rahman, M.M., et al. 2021. Unique regulation of intestinal villus epithelial Cl^-/HCO_3^- exchange by cyclooxygenase pathway metabolites of arachidonic acid in a mouse model of spontaneous ileitis. Int. J. Mol. Sci. 22: 4171.
2. Fremder, M., et al. 2021. A transepithelial pathway delivers succinate to macrophages, thus perpetuating their pro-inflammatory metabolic state. Cell Rep. 36: 109521.
3. Korsós, M.M., et al. 2021. Mouse organoid culture is a suitable model to study esophageal ion transport mechanisms. Am. J. Physiol., Cell Physiol. 321: C798-C811.
4. 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.
5. Cao, J., et al. 2021. Systemic characterization of the SLC family genes reveals SLC26A6 as a novel oncogene in hepatocellular carcinoma. Transl. Cancer Res. 10: 2882-2894.
6. Michl, J., et al. 2023. Acid-adapted cancer cells alkalinize their cytoplasm by degrading the acid-loading membrane transporter anion exchanger 2, SLC4A2. Cell Rep. 42: 112601.
7. Shin, S., et al. 2023. Ablation of TRPC3 compromises bicarbonate and phosphate transporter activity in mice proximal tubular cells. Clin. Exp. Pharmacol. Physiol. 50: 247-255.

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.