

SGLT-4 (S-14): sc-162184

BACKGROUND

Glucose is the main source of energy for mammalian cells and its entry is mediated by various transporters. This process involves seven facilitative (GLUT-1 to -7) and multiple members of the SGLT family. SGLT family members use the electrochemical gradient of two sodium ions to transport one glucose molecule. The mRNA of SGLTs increase steadily from the fetal period to maturity along with an increase in their functional activity. SGLT-4 (sodium/glucose cotransporter 4), also known as SLC5A9 (solute carrier family 5 member 9), is a 681 amino acid multi-pass membrane protein that participates in the sodium-dependent transport of D-fructose, D-mannose and D-glucose. A member of the sodium:solute symporter (SSF) family, SGLT-4 is found in small intestine and kidney.

REFERENCES

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3. Wallner, E.I., Wada, J., Tramonti, G., Lin, S. and Kanwar, Y.S. 2001. Status of glucose transporters in the mammalian kidney and renal development. *Ren. Fail.* 23: 301-310.
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CHROMOSOMAL LOCATION

Genetic locus: SLC5A9 (human) mapping to 1p33; Slc5a9 (mouse) mapping to 4 D1.

SOURCE

SGLT-4 (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of SGLT-4 of human origin.

STORAGE

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

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-162184 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SGLT-4 (S-14) is recommended for detection of SGLT-4 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other SGLT family members.

SGLT-4 (S-14) is also recommended for detection of SGLT-4 in additional species, including canine.

Suitable for use as control antibody for SGLT-4 siRNA (h): sc-88339, SGLT-4 siRNA (m): sc-153420, SGLT-4 shRNA Plasmid (h): sc-88339-SH, SGLT-4 shRNA Plasmid (m): sc-153420-SH, SGLT-4 shRNA (h) Lentiviral Particles: sc-88339-V and SGLT-4 shRNA (m) Lentiviral Particles: sc-153420-V.

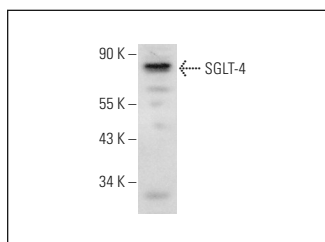
Molecular Weight of SGLT-4: 74 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



SGLT-4 (S-14): sc-162184. Western blot analysis of SGLT-4 expression in K-562 whole cell lysate.

RESEARCH USE

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