**BACKGROUND**

SLC4A7 (solute carrier family 4 member 7), also known as sodium bicarbonate cotransporter 3, is a 1,214 amino acid multi-pass membrane protein that mediates the movement of sodium and bicarbonate across the cell membrane. Studies in mice have shown that hydrogen ion disposal mediated by SLC4A7 is essential for auditory and visual systems, therefore, defects in the gene encoding SLC4A7 may result in the human manifestation of Usher syndrome, a leading cause of deafblindness. With highest expression in spleen and testis, SLC4A7 is also expressed in a variety of other tissues, including brain, skeletal muscle and heart. Due to its critical role in intracellular pH regulation, SLC4A7 is notably affected by hypoxic states during which protein levels are decreased, presumably for reduction of energy consumption. There are five isoforms of SLC4A7 that exist as a result of alternative splicing events.

**REFERENCES**


**APPLICATIONS**

SLC4A7 (L-15) is recommended for detection of SLC4A7 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 SLC family members.

SLC4A7 (L-15) is also recommended for detection of SLC4A7 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SLC4A7 siRNA (h): sc-77885, SLC4A7 siRNA (m): sc-153569, SLC4A7 shRNA Plasmid (h): sc-77885-SH, SLC4A7 shRNA Plasmid (m): sc-153569-SH, SLC4A7 shRNA (h) Lentiviral Particles: sc-77885-V and SLC4A7 shRNA (m) Lentiviral Particles: sc-153569-V.

Molecular Weight of glycosylated SLC4A7: 150 kDa.
Molecular Weight of deglycosylated SLC4A7: 130 kDa.

**CHROMOSOMAL LOCATION**

Genetic locus: SLC4A7 (human) mapping to 3p24.1; SLC4A7 (mouse) mapping to 14 A2.

**SOURCE**

SLC4A7 (L-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of SLC4A7 of human origin.

**PRODUCT**

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-99633 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.

**DATA**

![Western blot analysis of SLC4A7 expression](https://example.com)

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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