

Pendrin (H-195): sc-50346

BACKGROUND

Pendred syndrome (PDS), an autosomal recessive disorder, is the most common form of syndromic deafness characterized by congenital sensorineural hearing loss and goiter. The gene associated with PDS is mapped to chromosome 7 and encodes a putative transmembrane protein designated Pendrin. Several mutations in the gene have been identified and account for about 10% of hereditary deafness. Pendrin transcripts are expressed at significant levels in the thyroid, inner ear, fetal cochlea and kidney, but expression is drastically reduced in thyroid carcinomas. Pendrin functions as a transporter of chloride and iodide, but not sulfate, in these tissues. It is an apical anion transporter in intercalated cells of proximal tubule and cortical collecting ducts, which mediate renal bicarbonate secretion and Cl^-/OH^- , $\text{Cl}^-/\text{HCO}_3^-$ and $\text{Cl}^-/\text{formate}$ exchange in kidney. Pendrin is expressed throughout the endolymphatic duct and sac in distinct areas of the utricle and saccule and in the external sulcus region within the cochlea, where it plays a role in the development of ion gradients.

CHROMOSOMAL LOCATION

Genetic locus: SLC26A4 (human) mapping to 7q22.3; Slc26a4 (mouse) mapping to 12 A3.

SOURCE

Pendrin (H-195) is a rabbit polyclonal antibody raised against amino acids 586-780 mapping at the C-terminus of Pendrin of human origin.

PRODUCT

Each vial contains 200 μg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

Pendrin (H-195) is recommended for detection of Pendrin 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), 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).

Pendrin (H-195) is also recommended for detection of Pendrin in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Pendrin siRNA (h): sc-44009, Pendrin siRNA (m): sc-44391, Pendrin shRNA Plasmid (h): sc-44009-SH, Pendrin shRNA Plasmid (m): sc-44391-SH, Pendrin shRNA (h) Lentiviral Particles: sc-44009-V and Pendrin shRNA (m) Lentiviral Particles: sc-44391-V.

Molecular Weight of non-glycosylated Pendrin: 85 kDa.

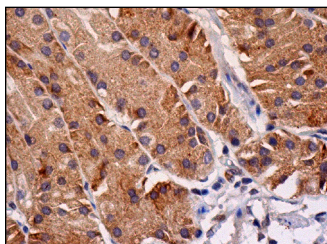
Molecular Weight of glycosylated Pendrin: 110-140 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



Pendrin (H-195): sc-50346. Immunoperoxidase staining of formalin fixed, paraffin-embedded human stomach tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

- Gao, X., et al. 2010. Deletion of hensen/DMBT1 blocks conversion of β - to α -intercalated cells and induces distal renal tubular acidosis. *Proc. Natl. Acad. Sci. USA* 107: 21872-21877.
- Bravo, S.B., 2013. Humanized medium (h7H) allows long-term primary follicular thyroid cultures from human normal thyroid, benign neoplasm and cancer. *J. Clin. Endocrinol. Metab.* 98: 2431-2441.
- Bravo, S.B., et al. 2013. Humanized medium (h7H) allows long-term primary follicular thyroid cultures from human normal thyroid, benign neoplasm and cancer. *J. Clin. Endocrinol. Metab.* 98: 2431-2441.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.