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Rabbit Anti-Slc26a5 antibody

SL20259R

Product Name:	Slc26a5
Chinese Name:	感觉神经性耳聋常染色体隐性遗传61抗体
Alias:	Prestin; Deafness neurosensory autosomal recessive 61; DFNB 61; DFNB61; MGC118886; MGC118887; MGC118888; MGC118889; PRES; Prestin (motor protein); Prestin; S26A5_HUMAN; SLC26A5; Solute carrier family 26 member 5 (prestin); Solute carrier family 26 member 5.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Pig,Cow,Rabbit,
Applications:	IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	81kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Slc26a5:201-300/744<Extracellular>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	Preservative: 15mM Sodium Azide, Constituents: 1% BSA, 0.01M PBS, pH 7.4
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	This gene encodes a member of the SLC26A/SulP transporter family. The protein functions as a molecular motor in motile outer hair cells (OHCs) of the cochlea, inducing changes in cell length that act to amplify sound levels. The transmembrane

protein is an incomplete anion transporter, and does not allow anions to cross the cell membrane but instead undergoes a conformational change in response to changes in intracellular Cl- levels that results in a change in cell length. The protein functions at microsecond rates, which is several orders of magnitude faster than conventional molecular motor proteins. Mutations in this gene are potential candidates for causing neurosensory deafness. Multiple transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Nov 2009]

Function:
Motor protein that converts auditory stimuli to length changes in outer hair cells and mediates sound amplification in the mammalian hearing organ. Prestin is a bidirectional voltage-to-force converter, it can operate at microsecond rates. It uses cytoplasmic anions as extrinsic voltage sensors, probably chloride and bicarbonate. After binding to a site with millimolar affinity, these anions are translocated across the membrane in response to changes in the transmembrane voltage. They move towards the extracellular surface following hyperpolarization, and towards the cytoplasmic side in response to depolarization. As a consequence, this translocation triggers conformational changes in the protein that ultimately alter its surface area in the plane of the plasma membrane. The area decreases when the anion is near the cytoplasmic face of the membrane (short state), and increases when the ion has crossed the membrane to the outer surface (long state). So, it acts as an incomplete transporter. It swings anions across the membrane, but does not allow these anions to dissociate and escape to the extracellular space. Salicylate, an inhibitor of outer hair cell motility, acts as competitive antagonist at the prestin anion-binding site.

Subcellular Location:
Cell membrane; Multi-pass membrane protein. Note=Lateral wall of outer hair cells.

DISEASE:
Deafness, autosomal recessive, 61 (DFNB61) [MIM:613865]: A form of non-syndromic sensorineural hearing loss. Sensorineural deafness results from damage to the neural receptors of the inner ear, the nerve pathways to the brain, or the area of the brain that receives sound information. Note=The disease is caused by mutations affecting the gene represented in this entry.

Similarity:
Belongs to the SLC26A/SulP transporter (TC 2.A.53) family.
Contains 1 STAS domain.

SWISS:
P58743

Gene ID:
375611

Database links:

	Entrez Gene: 375611Human Omim: 604943Human SwissProt: P58743Human Unigene: 585146Human **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.