

Recombinant Human SLC26A5 Protein, His-tagged

Cat. No. SLC26A5-1520H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human SLC26A5 Protein is produced by Yeast expression system. This protein is fused with a 6xHis tag at the N-terminal. Research Area: Neuroscience. Protein Description: Partial.
Species	Human
Source	Yeast
Description	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 domain anions as extrinsic voltage sensors, probably chloride and bicarbonate. After binding to a site with millimolar affinity, these anions are translocated across the mbrane in response to changes in the transmembrane voltage. They move towards the Extracellular domain surface following hyperpolarization, and towards the Cytoplasmic domain 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 mbrane. The area decreases when the anion is near the Cytoplasmic domain face of the mbrane (short state), and increases when the ion has crossed the mbrane to the outer surface (long state). So, it acts as an incomplete transporter. It swings anions across the mbrane, but does not allow these anions to dissociate and escape to the Extracellular domain space. Salicylate, an inhibitor of outer hair cell motility, acts as competitive antagonist at the prestin anion-binding site.

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Form	Tris-based buffer, 50% glycerol
Molecular Mass	29.0 kDa
Purity	> 90% as determined by SDS-PAGE.
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4 centigrade for up to one week.
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20 centigrade/-80 centigrade. The shelf life of lyophilized form is 12 months at -20 centigrade/-80 centigrade.
Concentration	A hardcopy of COA with reconstitution instruction is sent along with the products.

GENE INFORMATION

Gene Name	SLC26A5 solute carrier family 26, member 5 (prestin) [Homo sapiens]
Official Symbol	SLC26A5
Synonyms	SLC26A5; prestin; deafness; neurosensory; DFNB61; PRES; MGC118886; MGC118887; MGC118888; MGC118889;
Gene ID	375611
mRNA Refseq	NM_001167962
Protein Refseq	NP_001161434

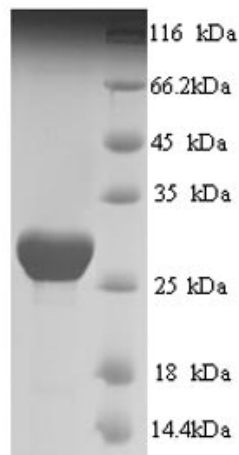
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MIM 604943

UniProt ID P58743



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

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