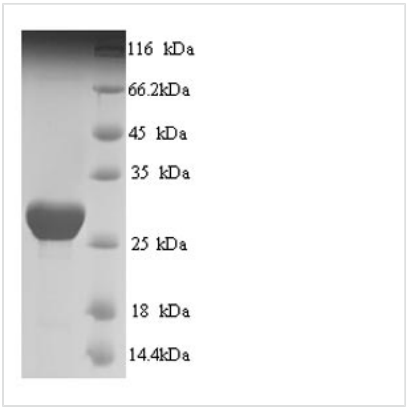
Recombinant Human Prestin (SLC26A5), partial,Yeast

Product Code	CSB-YP021528HU
Relevance	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 transmbrane 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 .
Abbreviation	Recombinant Human SLC26A5 protein, partial
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°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P58743
Alias	Solute carrier family 26 member 5
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Research Area	Neuroscience
Source	Yeast
Target Names	SLC26A5
Protein Names	Recommended name: PrestinAlternative name(s): Solute carrier family 26 member 5
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal His-tagged Tag-Free

Mol. Weight	29.0kDa
Protein Length	Cytoplasmic Domain

Image



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

Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
Shelf Life	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°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.