

Product datasheet for **MC227903**

Slc26a5 (NM_001289788) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Slc26a5 (NM_001289788) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Slc26a5
Synonyms:	Pres; prestin
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >MC227903 representing NM_001289788
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGC**

ATGGTTTTTGGTTTGGTGGTGGCAAGGAATTTAATGAGAGATTTAAAGAGAAATTGCCAGCACCCA
 TTCTCTAGAGTTCTTTGCTGTGGTGATGGGGACTGGCATTCTGCAGGATTTAACTACATGAGTCCTA
 CAGTGTGGATGTCGTTGGAACACTTCTCTGGGCTACTTCTCCGGCCAACCCAGACACCGCCTGTTT
 CACCTGGTGTATGTGGACGCCATTGCCATCGCCATCGTTGGATTTTCAGTGACGATCTCCATGGCCAAA
 CCTTGGCAATAAGCATGGCTACCAGGTTGATGGCAATCAGGAGCTATTGCCTTGGGGATATGCAACTC
 CATTGGATCTCTTCCAAACCTTCTCGATTTCTGCTCCTTGTCTGAAGCCTTGTTCAGGAAGGAAT
 GGAGGGAAACACAGCTTGCAGGTTGTTTGGCCTCGTTGATGATTCTGTTGGTCATATTAGCCACCGGAT
 TCCTCTTTGAGTCGTTACCCAGGCTGTCCTTTCCGCCATTGTGATCGTCAACCTGAAAGGAATGTTTAT
 GCAGTTCTCAGACCTGCCTTTTTTCTGGAGAACCAGCAAAATAGAGCTGACCATCTGGCTGACCACCTT
 GTGTCCTCCCTGTTCTCGGCTTGGACTACGGACTGATTACCGCCGTGATCATTGCTCTGCTCACAGTGA
 TTTATAGAACACAGAGTCCAAGCTACAAAGTCTGGGGCAGCTCCCTGACACGGATGTGTACATTGACAT
 AGATGCATATGAGGAGGTGAAAGAAATTCCTGGAATAAAATATTCCAAATAAATGCCCAATTTACTAT
 GCAATAGCGACTTGTATAGCAGCGCTTTAAAAAGAAAGACTGGAGTAAACCCAGCACTATTATGGGAG
 CGAGAAGAAAGGCCATGAGGAAGTACGCCAAGGAAGTTGGAAATGCCAACGTGGCCAATGCTACTGTTGT
 CAAAGTGGATGCAGAAGTAGACGGAGAAATGCTACAAACCTGAAGAAGAGGATGATGAAGTCAATTT
 CCCCCAATAGTCATCAAAACAACATTTCTGAAGAGCTGCAGAGATTTTGGCCAGGGGGAAAAATGTCC
 AACTGTCTATTAGACTTTACGCAGGTCAATTTTGTGGATTCTGTTGGAGTGAAAACTCTGGCCGGGAT
 TGTGAAAGAATATGGAGATGTTGGAATTTATGTATATTTAGCAGGATGCAGCCCAAGTTGTGAATGAC
 CTCACCCGCAACAATTTTTTGAATCCTGCCTTGAAGAGCTTCTGTTCCACAGTATCCACGATGCAG
 TCCTGGGCAGCAAGTTCGGGAGGCAATGGCTGAACAAGAAGCCACAGCGTCACTTCCCCAGGAGGATAT
 GGAGCCCAATGCCACACCCACCCCGAGGCA**TAA**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001289788

Insert Size: 1437 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none"> 1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_001289788.1, NP_001276717.1</u>
RefSeq Size:	4378 bp
RefSeq ORF:	1437 bp
Locus ID:	80979
UniProt ID:	<u>Q99NH7</u>
Cytogenetics:	5 9.97 cM
Gene Summary:	<p>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 (By similarity). [UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (3) differs in the 5' UTR, lacks a portion of the 5' coding region and initiates translation at a downstream start codon, compared to variant 1. It encodes isoform 3, which is shorter at the N-terminus, compared to isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.</p>