

## Product datasheet for **MR210174**

### **Slc44a4 (NM\_023557) Mouse Tagged ORF Clone**

#### **Product data:**

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids                        |
| Product Name:             | Slc44a4 (NM_023557) Mouse Tagged ORF Clone |
| Tag:                      | Myc-DDK                                    |
| Symbol:                   | Slc44a4                                    |
| Synonyms:                 | 2210409B01Rik; mTPPT1; NG22                |
| Mammalian Cell Selection: | Neomycin                                   |
| Vector:                   | pCMV6-Entry (PS100001)                     |
| E. coli Selection:        | Kanamycin (25 ug/mL)                       |



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ORF Nucleotide  
Sequence:

>MR210174 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGGGGAGAAAGCAGAATGAGAACGAGGCTCACGGGAATTCGGCCAAATATGACCCCTCCTTTCGAGGCC  
CCATCAAAAACAGGGGCTGCACAGACATCATCTGCTGTGCTCTTCTGATCTTCAATTTGGGTTACAT  
CATAAGTGGGGCTTGTGGCCTGGGTGATGGAGACCCTCGCAAGTCTACCCAGAACTCCACGGGG  
GCCTACTGCGGCGTGGGCGACAACAAGGATAAACCCCTACGTTCTATACTTCGACATCTTAAGCTGTGCGG  
CAGCTATCAACATCATCTCCATCGCTGAGAATGGCCTACAGTGCCCCACACCCAGGTGTGCGTCTTTC  
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AGGAGAACTTTTGTCTCCAGCGGTGTCCCAGATATGATAGTGGAGGAGCCCTGCAGAAGGGACTCT  
GTCCCGTTTCTTCTTCTTCTACTCCAGCTCTGGGACGTTGTTCCCACTCCCAACATCAACTTCAC  
GTTACCTGAAGACTTACGGATCAATAACACCACCGTCTTAATGGCATCAGTGGCCTCCTGGACAGCATC  
AATGCCCGGGATGTCTGTGAAGATCTTTGAAGATTTTGCCCACTCCTGGTACTGGATTCTCGTAGCGC  
TGGGTGTGGCCCTGGCACTAAGTCTGCTGTTTCCTCCTCCTGCGCCTGGTGGCGGCACCCCTGGTGTCT  
GCTGCTGATTGTGCGGGTGTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT  
TTTCGGGACAAGGGCGCCTCCATCACCCAACTGGGCTTCACTACCAACTCAGTGCCCTACCAGAGTGTGA  
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CCTGCGCCAGAGGATCCGGATCGCCATCGCTCTGCTGAAGGAAGCCAGCAGGGCTGTGGGCAGATGATG  
TCAACTATGTTTACCCTCTGGTCACTTCGCTCCTGGTCACTTGCATTGGTTACTGGCCGTGACAG  
CTCTATACCTGGCCACATCCGGCAACCCAGTACATCTACTGGGCGTCCAACACCAGTACACCCGGCTG  
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TTATCCTGGAGTATATCGACCACAAGCTAAGAGGATCCCAGAACCCTGTGGCCGCTGCATCATCTGCTG  
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GCCATCTATGAAAGAATTTTTGTGCTCGGCCAAAATGCCTTCATGCTGCTCATGAGGAATGTTCTCA  
GGTCTGCTGCTGGATAAAGTCACTGATCTGCTGCTGTTCTTTGGGAAGCTGCTGGTGGTGGAGGTGT  
CGGCGTCTGCTCTTCTTCTTTTCTCCGGTCTGATCAAGGGGCTGGGGAAGACTTTGAGAACCCAAAC  
CTCAACTATTATTGGCTGCCATCATGACCTCCATCATGGGAGCCTACGTCATTGCCAGTGGCTTCTTCA  
GCGTCTTTGGAATGTGTGTAGATACGCTCTTCTCTGCTTCTCGAGGACCTGGAGAGAAATGATGGTTC  
CCAGGAGCGGCCTTACTACATGCCCAAGGCACTCCTGAAGATTCTGGCAAGAAGAATGAGGCACCTACA  
GGGGGAAAGACCAGGAAGAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR210174 protein sequence  
 Red=Cloning site Green=Tags(s)

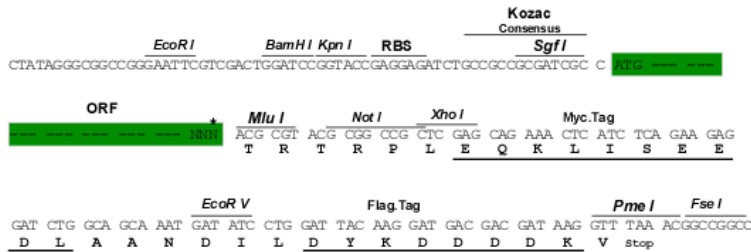
```
MGRKQNEAEHGNsAKYDPSFRGPIKNRGCTDIICCVLFLIFILGYIIIVGLVAWVYGDPRQVLYPRNSTG
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RRNFCLPAVSPDMIVEESLQKGLCPFRLLPSTPALGRCFPLPNINFTLPEDLRINNTTVSNGISGLLDSI
NARDVSVKIFEDFAQSWYWILVALGVALALSLLFILLRLVAAPLVLLLIVGVLAVLAYGIYHCWQQYQV
FRDKGASITQLGFTTNFSAQSVKETWLAALIVLAVLEGILLMLIFLRQRIRIAIALLKEASRAVGQMM
STMFYPLVTVFVLLVICIGYAVTALYLATSGQPQYIYWASNTSTPGCENVPVNMTCDPMAPLNSSCPNLK
CVFKGYSTTGLAQRSLFNLQIYGVGLFWTVNWWLALGQCVLAGAFASFYWFHFKPRDIPTFPLSSAFIR
TLRYHTGSLAFGALILSLVQIARVILEYIDHKLKRSQNPVARIICCFKCLWCLEKFIKFLNRNAYIMI
AIYGKNFCVSAKNAFMLLMRNVLRVVLDKVTDLLLFFGKLLVVGCVGLSFFFFSGRIKGLGKDFENPN
LNYYWLPIMTSIMGAYVIASGFFSVFGMCDTLFLCFLEDLERNDGSRPYYMPKALLKILGKKNEAPT
GGKTRKK
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_023557

**ORF Size:** 2124 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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:**

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.

**RefSeq:** [NM\\_023557.3](#), [NP\\_076046.1](#)

**RefSeq Size:** 2345 bp

**RefSeq ORF:** 2124 bp

**Locus ID:** 70129

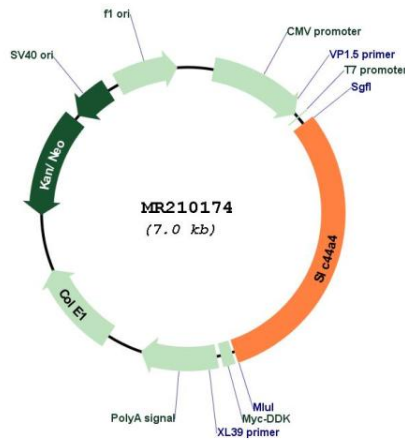
**UniProt ID:** [Q91VA1](#)

**Cytogenetics:** 17 B1

**MW:** 78.7 kDa

**Gene Summary:** Choline transporter that plays a role in the choline-acetylcholine system and is required to the efferent innervation of hair cells in the olivocochlear bundle for the maintenance of physiological function of outer hair cells and the protection of hair cells from acoustic injury (By similarity). Also described as a thiamine pyrophosphate transporter in colon, may mediate the absorption of microbiota-generated thiamine pyrophosphate and contribute to host thiamine (vitamin B1) homeostasis (PubMed:24379411).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR210174