

Product datasheet for **MR219373**

Slc30a10 (NM_001033286) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Slc30a10 (NM_001033286) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Slc30a10
Synonyms:	E130106K10Rik; Gm212
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>MR219373 representing NM_001033286
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGCCGTTACTCAGGCAAGACGTGCCGGCTGCTGTTTCATGCTGGTGCTCACCGCGCCTTCTTCTGTGG
 CCGAGCTGGTGTGGGTTACCTGGGCAACTCCATCGCGCTGCTCTCGACTCGTTCAACATGCTGTGAGA
 CCTGATCTCGCTGTGCGTGGGCCTGGGCTCCGGCTACATCGCGCGCGCGGTCCCGCGGCTCCAGTGCC
 ACCTACGGCTACGTGCGGGCCGAGGTGGTGGGCGCGCTCAGCAACGCAGTCTTCTCACTGCGCTGTCT
 TCACCATCTTCTGGAGGCCGTTTGGCCTTGCAGCGCCGAGCGCATCGACGACCCGGAGCTGGTGTCT
 TATCGTGGGAGCCCTGGGCTGGCGGTCAACGTGGTGGGCTGCTCATCTTCCAGGACTGCGGGCCTGCT
 TTCTCCCGCTGCACGCGGGTGCAGGACCCGCCCTTGCAGCAGCAAGCCAGGGGGATCTCGTGGCG
 CTTTGGGGTGTCCCAAGAGGCTGCGACAGCCACAGCTCTGGCTCGGGCACAGCAGTACTCTCCGGGG
 GTCTCGGCCGGAAGAAAGCAGCAGGAGGGCGCGACCGTGTCTCTAATGTAGCAGTGATTCCCTGAAC
 ACCGAGAATGAACCAGAAGAGACGACGAAAAAAGAGAAGAAGTCTGAAGCACTCAATATCAGAGGTGTC
 TTTTGACGTGATGGGAGATGCCTTGGGGTCCGTGGTGTGGTATCACGGCTATCATATTTATGTTCA
 GCCCTGAGACGTGAAGACCCGTGTAAGTGGCAGTGTACATTGACCCAGTTTGAAGTGTGATGGTCA
 ATCATTATCTTATCGTCAGCTTCCCACTGATCAAGAGACTGCTGTGATCTTGTGTCAGATGGTCCCA
 AGGGGGTCAACATGGAAGAGCTGATGAGCCAGCTGTCTACCGTGCCTGGGATTAGCAGTGTGATGAAGT
 GCACATCTGGGAACCTTAAGTGGGAAGATCATTGCCACCTTGCACATCAACACCAGAAGGGCACGGAA
 TACCAGGATGCCAGCAGAAAAATCCGAGAGATCTTCCACCATGCTGGAATCCACAACGTGACTATCCAGT
 TCGAAACCCTGGACTTGAAGGAAGCCCTGGAGCAGAAGGACTTCTGCTGACCTGCAGTGTCTCCAT
 CACCCAGAGCTGCGCTAAGAAGCTGTGCTGTCCCGGGGACACTGCCTCTGGCTCTCGTCAACGGTTGT
 GCAGAGCACAATGGCAGTCTCTCGAGAGTCTTACCGAAGCATAGAAGCTCCAGAAGTGGCCATCGATG
 TGGATGGCTGTCCAAGGGAGCAGGGACAGACTCTCAGCAAGACTCAGGAGAGACAACATTATGAAAAACAG
 TACTCATTTT

ACGCGTACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR219373 representing NM_001033286
 Red=Cloning site Green=Tags(s)

MGRYSGKTCRLLFMLVLTAAFFVAELVSGYLGNSIALLSDSFNMLSDLISL CVGLGSGYIARRGPRGSSA
 TYGYVRAEYVVALSNAVFLTALCFITFVEAVLRLARPERIDDPPELVIVGALGLAVNVVGLLIFQDCGAC
 FSRCTRGRTRPSQQPSQGDPRGALGCPQEAATATAPGSGTAVTLRGSSAGRKQEQEGATVFSNVAGDSL
 TENEPEETTKKEKSEALNIRGVLLHVMGDALGSVVVVITAIIFYVQPLRREDPCNWQCYIDPSLTVVMV
 I I I L S S A F P L I K E T A V I L L Q M V P K G V N M E E L M S Q L S T V P G I S S V H E V H I W E L I S G K I I A T L H I K H Q K G T E
 Y Q D A S R K I R E I F H H A G I H N V T I Q F E T L D L K E A L E Q K D F L L T C S A P C I T Q S C A K K L C C P P G T L P L A L V N G C
 A E H N G R S S R E S Y R S I E A P E V A I D V D G C P R E Q G Q T L S K T Q E R Q H Y E N S T H F

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mm9017_b08.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_001033286

ORF Size: 1410 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

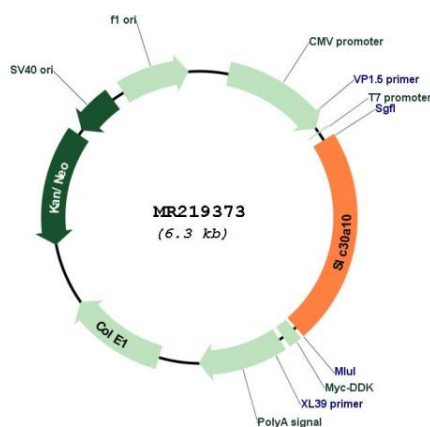
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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_001033286.2](#), [NP_001028458.1](#)
RefSeq Size: 5836 bp
RefSeq ORF: 1413 bp
Locus ID: 226781
UniProt ID: [Q3UVU3](#)
Cytogenetics: 1 H5
MW: 51.4 kDa

Gene Summary: Plays a pivotal role in manganese transport. Manganese is an essential cation for the function of several enzymes, including some crucially important for the metabolism of neurotransmitters and other neuronal metabolic pathways. However, elevated levels of manganese are cytotoxic and induce oxidative stress, mitochondrial dysfunction and apoptosis. Acts as manganese efflux transporter and confers protection against manganese-induced cell death. Also acts as zinc transporter involved in zinc homeostasis. Seems to mediate zinc transport into early endosomes and recycling endosomes to prevent zinc toxicity; the function may be regulated by heterodimerization with other zinc transporters of the SLC30A subfamily. The SLC30A3:SLC30A10 heterodimer is involved in zinc transport-dependent regulation of the EGFR/ERK transduction pathway in endosomes. May be involved in regulation of zinc-dependent senescence of vascular smooth muscle cells. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR219373