

## Product datasheet for **MC200831**

### Slc22a1 (NM\_009202) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Slc22a1 (NM_009202) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Slc22a1
Synonyms:	Lx1; Oct1; Orct; Orct1
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >BC021651 sequence for NM\_009202  
 CCACGCGTCCGCGGGTAAAAGGTTGTTTCTGGTTGGTTGCCTTCCAGATGTATCAGGCTTGAACAGCAA  
 CTTGATTTCAAGCCACCGCAGTTCCAAGAACTTTAAATGAGACGCTGCACGAACCCCAAGTGGCAGTCCA  
 GAGCAGGCTGGCTGAGTTGGTGGAGGCCCTACCCAGCCATGCCACCGTGGACGATGTCCTGGAGCAGC  
 TTGGAGAGTTGGCTGGTCCAGAAGCAAGCCTTCTGTGTGATGCCTGATCTCAGCTTCTTTAGCTCC  
 CATCTACGTGGGCATCGTTTTCTGGGCTTACCCCGACCACCCTGCCGGAGTCTGGAGTGGCCGAG  
 CTGAGCCAGCGGTGGCTGGAGCCCGCAGAGGAGCTGAACTACACCGTGCCGGCCTGGGGTCTGCGG  
 GTGAGGCCTCCTTCTCAGCCAATGCATGAAGTATGAGGTGGACTGGAACCAAGACACCCTTGACTGTGT  
 GGACCCACTGTCCAGCCTGGCTGCCAACAGGAGCCAATTGCCACTGAGCCCTGCGAGCATGGCTGGGTG  
 TACGACACTCCCGGCTCCTCCATCGTCACTGAGTTAACCTGGTGTGGAGACGCTGGAAGTGGACC  
 TTTTTCAGTCTGTGAACTTGGGCTTCTTCTGGGCTCCCTGGTTGTGGGTTACATTGCAGACAGGTT  
 TGGCCGTAAGCTCTGCCTCCTGGTGACCACTCTGGTCACTCCCTGTCTGGCGTGTAAACAGCGTGGCC  
 CCAGACTATACATCCATGTTGCTCTTTCGCCTTCTGCAAGGCATGGTCAAGCAAGGCAGCTGGGTGTCTG  
 GCTACACCTTGATCACAGAGTTTGTGGCTCTGGCTACAGGAGAACGACAGCCATCTGTACCAGGTGGC  
 CTTACAGTGGGGCTAGTGGGGCTTGTGGGGTGGCCTATGCCATTCCAGACTGGCGCTGGCTCCAGCTG  
 GCGGTGTCCCTGCCACCTTCTTCTTCTGCTGTATTACTGGTTGTCCCAGAATCCCCCGGTGGCTGT  
 TGCTCTCAGAAGAGAACCCTCAAGCGGTAAAGATAATGGAGCAAATTGCACAGAAGAACAGGAAGGTGCC  
 CCCTGCTGACCTGAAGATGATGTGCCTTGGGAAGATGCCTCAGAGAGCGGAGTCTTCGTTTGCAGAC  
 CTGTTCCGCACCCCAAGCCTGAGGAAGCACACCCTCATCTGATGTATCTATGGTTCTCTGTGCTGTGC  
 TGTACCAGGGCTCATATGCATGTGGGAGCCACAGGGGCCAACCTTACCTGGACTTCTTTTATTTCTTC  
 TCTAGTGAATCCCTGCGGCCTTATCATCTTGTCCATTGACCGCATTGGCCGCATCTACCAATA  
 GCGGCATCAAATCTGGTGGCGGGGCAGCCTGCCTCCTCATGATCTTTATCCACATGAGCTGCATTGGT  
 TGAATGTGACCCTCGCTTGTCTTGGCCGTATGGGAGCCACCATTGTGTTGCAGATGGTCTGCATAGTGA  
 CGCTGAGCTGTACCCTACATTATCAGGAATCTCGGGATGATGGTGTGCTCTGCCCTGTGTGACCTAGGT  
 GGGATCTTACCCCTTATGGTGTTCAGGCTGATGGAAGTTTGGCAAGCCCTGCCCTCATTTTGTGTTG  
 GGGTTTTGGGCTGAGTGTGGGCTGTGACCCTTCTACTTCCGGAGACCAAGGGCGTGGCTCTGCCTGA  
 GACTATTGAAGAAGCGGAGAACCCTGGGAAGGAGGAAATCAAAGGCCAAAGAAAACACGATTTACCTTCAG  
 GTCCAAACAGGCAAATCCCCACATACCTGACAGGGATGCCGTGTGAGGAGCTGAGTGGAGAGAGGAAGGA  
 GGACTGGCCACTTGAAGATTCTAGAAGCCTTTCCTTCCAGACACTTCTATATTTACCAGGTTCC  
 AAATGAATCCCAACCTTAAAGACTTTTCTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA A

**Restriction Sites:** RsrII-NotI

**ACCN:** NM\_009202

**Insert Size:** 1671 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).

**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: [BC021651](#), [AAH21651](#)

RefSeq Size: 2031 bp

RefSeq ORF: 1671 bp

Locus ID: 20517

UniProt ID: [O08966](#)

Cytogenetics: 17 8.63 cM

**Gene Summary:** Translocates a broad array of organic cations with various structures and molecular weights including the model compounds 1-methyl-4-phenylpyridinium (MPP), tetraethylammonium (TEA), N-1-methylnicotinamide (NMN), 4-(4-(dimethylamino)styryl)-N-methylpyridinium (ASP), the endogenous compounds choline, guanidine, histamine, epinephrine, adrenaline, noradrenaline and dopamine, and the drugs quinine, and metformin. The transport of organic cations is inhibited by a broad array of compounds like tetramethylammonium (TMA), cocaine, lidocaine, NMDA receptor antagonists, atropine, prazosin, cimetidine, TEA and NMN, guanidine, cimetidine, choline, procainamide, quinine, tetrabutylammonium, and tetrapentylammonium. Translocates organic cations in an electrogenic and pH-independent manner. Translocates organic cations across the plasma membrane in both directions. Transports the polyamines spermine and spermidine. Transports pramipexole across the basolateral membrane of the proximal tubular epithelial cells. The choline transport is activated by MMTS. Regulated by various intracellular signaling pathways including inhibition by protein kinase A activation, and endogenously activation by the calmodulin complex, the calmodulin-dependent kinase II and LCK tyrosine kinase.[UniProtKB/Swiss-Prot Function]