

Product datasheet for MR211189L3

Slc8a3 (NM_001167920) Mouse Tagged Lenti ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Slc8a3 (NM_001167920) Mouse Tagged Lenti ORF Clone
Tag:	Myc-DDK
Symbol:	Slc8a3
Synonyms:	AW742262; Ncx3
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-Myc-DDK-P2A-Puro (PS100092)
E. coli Selection:	Chloramphenicol (34 ug/mL)
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR211189).
Restriction Sites:	SgfI-MluI
Cloning Scheme:	

Cloning sites used for ORF Shuttling:



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

ACCN:	NM_001167920
ORF Size:	2763 bp



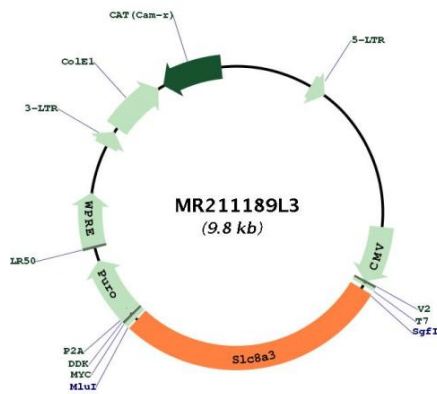
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OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), 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:	<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:	NM_001167920.1 , NP_001161392.1
RefSeq Size:	4943 bp
RefSeq ORF:	2766 bp
Locus ID:	110893
UniProt ID:	S4R2P9
Cytogenetics:	12 37.44 cM

Gene Summary:

Mediates the electrogenic exchange of Ca^{2+} against Na^{+} ions across the cell membrane, and thereby contributes to the regulation of cytoplasmic Ca^{2+} levels and Ca^{2+} -dependent cellular processes. Contributes to cellular Ca^{2+} homeostasis in excitable cells, both in muscle and in brain (PubMed:14722618, PubMed:21593315). In a first phase, voltage-gated channels mediate the rapid increase of cytoplasmic Ca^{2+} levels due to release of Ca^{2+} stores from the endoplasmic reticulum. SLC8A3 mediates the export of Ca^{2+} from the cell during the next phase, so that cytoplasmic Ca^{2+} levels rapidly return to baseline (PubMed:14722618, PubMed:21593315). Contributes to Ca^{2+} transport during excitation-contraction coupling in muscle (PubMed:14722618). In neurons, contributes to the rapid decrease of cytoplasmic Ca^{2+} levels back to baseline after neuronal activation, and thereby contributes to modulate synaptic plasticity, learning and memory (PubMed:21593315). Required for normal oligodendrocyte differentiation and for normal myelination (PubMed:21959935). Mediates Ca^{2+} efflux from mitochondria and contributes to mitochondrial Ca^{2+} ion homeostasis (PubMed:24616101). Isoform 1 displays higher calcium exchanger activity than isoform 2, probably because isoform 1 has a lower threshold for activation by cytoplasmic Ca^{2+} (PubMed:24616101).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR211189L3