

## Product datasheet for **RR205249L4V**

### Slc8b1 (NM\_001017488) Rat Tagged ORF Clone Lentiviral Particle

#### Product data:

Product Type:	Lentiviral Particles
Product Name:	Slc8b1 (NM_001017488) Rat Tagged ORF Clone Lentiviral Particle
Symbol:	Slc8b1
Synonyms:	Slc24a6
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_001017488
ORF Size:	1755 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RR205249).
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. <a href="#">More info</a>
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	<a href="#">NM_001017488.1</a> , <a href="#">NP_001017488.1</a>
RefSeq Size:	2693 bp
RefSeq ORF:	1758 bp
Locus ID:	498185
UniProt ID:	<a href="#">Q6AXS0</a>
Cytogenetics:	12q16



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**Gene Summary:**

Mitochondrial sodium/calcium antiporter that mediates sodium-dependent calcium efflux from mitochondrion, by mediating the exchange of 3 sodium ions per 1 calcium ion. Plays a central role in mitochondrial calcium homeostasis by mediating mitochondrial calcium extrusion: calcium efflux is essential for mitochondrial function and cell survival, notably in cardiomyocytes (By similarity). Regulates rates of glucose-dependent insulin secretion in pancreatic beta-cells during the first phase of insulin secretion: acts by mediating efflux of calcium from mitochondrion, thereby affecting cytoplasmic calcium responses. Required for store-operated  $\text{Ca}^{2+}$  entry (SOCE) and  $\text{Ca}^{2+}$  release-activated  $\text{Ca}^{2+}$  (CRAC) channel regulation: sodium transport by SLC8B1 leads to promote calcium-shuttling that modulates mitochondrial redox status, thereby regulating SOCE activity (By similarity). Involved in B-lymphocyte chemotaxis (By similarity). Able to transport  $\text{Ca}^{2+}$  in exchange of either  $\text{Li}^{+}$  or  $\text{Na}^{+}$ , explaining how  $\text{Li}^{+}$  catalyzes  $\text{Ca}^{2+}$  exchange. In contrast to other members of the family its function is independent of  $\text{K}^{+}$  (By similarity).[UniProtKB/Swiss-Prot Function]