

Product datasheet for **MR224572**

Slc5a12 (NM_001003915) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	Myc-DDK
Symbol:	Slc5a12
Synonyms:	AI315119; D630015G19; SMCT2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



ORF Nucleotide Sequence: >MR224572 representing NM_001003915
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

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 CCACAGATTTCCAGCAGACCTGTCTAGCTGACACATGGTACTCACTCTCTACCTTTTACTTCAGTGCTG
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
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Protein Sequence: >MR224572 representing NM_001003915
 Red=Cloning site Green=Tags(s)

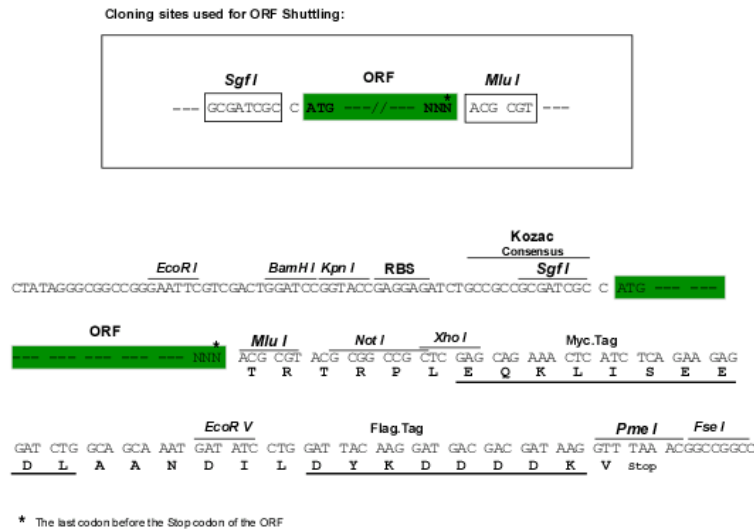
MRVKNFEAWDYVVFAGLFVISSGIGVFFAIKERKKTTSREFLVGGGRQMSFGPVALSLTASFMSAVTVLGT
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 NNVLEKAGNGSRLHIVDFDVPDLRRHTFWTITIGGTFWLVGYGVNQSTIQRCISCKTEKHAKLALYFNL
 LGLWIIIVACAVFSGLIMYSHFKDCDPWTSGLVISPDLMPYFVMEIFATMPGLPGLFVACAFSGTLSTVA
 ASINALATVTFEDFVKSCFPHLSDKLSTWISKGLCILFGIMCTSMVVASLMGSSVVQAPGIVSQERAITG
 SFQRNLASVCYGVSIWKLIMGALGGLLTGITLSFWVAIGSFYIPAPESKTLPLPLSTEHVELNITTVA
 PQISSRPVLADTWYSLSYLYFSVAGCLGCIAAGIIISFLTQKQKQKIDPLLIRPVCNLCFWSKKYKTL
 CWCGVQHRETEQDYLDSSGSAWKQGVESGLQNLKQDTLAQIPGYNPKESYSNSVPEKTTYF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9065_c08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001003915

ORF Size: 1869 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

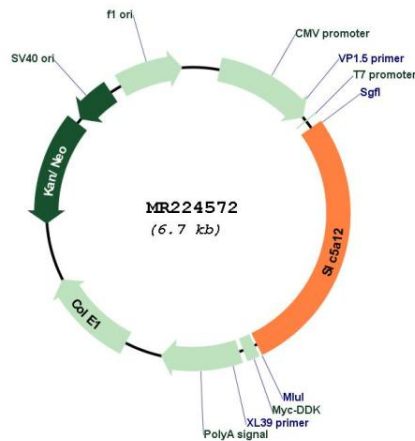
RefSeq: [NM_001003915.2](#), [NP_001003915.1](#)

RefSeq Size: 5104 bp

RefSeq ORF: 1872 bp
Locus ID: 241612
UniProt ID: [Q49B93](#)
Cytogenetics: 2 E3
MW: 68.5 kDa

Gene Summary: Acts as an electroneutral and low-affinity sodium (Na^{+})-dependent sodium-coupled solute transporter. Catalyzes the transport across the plasma membrane of many monocarboxylates such as lactate, pyruvate, nicotinate, propionate, butyrate and beta-D-hydroxybutyrate. May be responsible for the first step of reabsorption of monocarboxylates from the lumen of the proximal tubule of the kidney and the small intestine. May play also a role in monocarboxylates transport in the retina. Mediates electroneutral uptake of lactate, with a stoichiometry of 2 Na^{+} for each lactate.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR224572