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Product datasheet for MR227038

Isl1 (NM_021459) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Isl1 (NM_021459) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Isl1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR227038 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGAGACATGGGCGATCCACCAAAAAAAAAAACGTCTGATTTCCCTGTGTGTTGGTTGCGGCAATCAAA
TTCACGACCAGTATATTCTGAGGGTTTCTCCGGATTTGGAGTGGCATGCAGCATGTTTGAAATGTGCGGA
GTGTAATCAGTATTTGGACGAAAGCTGTACGTGCTTTGTTAGGGATGGGAAAACCTACTGTAAAAGAGAT
TATATCAGGTTGTACGGGATCAAATGCGCCAAGTGCAGCATAGGCTTCAGCAAGAACGACTTCGTGATGC
GCGCCCGCTCTAAGGTGTACCACATCGAGTGTTTCCGCTGTGTAGCCTGCAGCCGACAGCTCATCCCGGG
AGACGAATTCGCCCTGCGGGAGGATGGGCTTTTCTGCCGTGCAGACCACGATGTGGTGGAGAGAGCCAGC
CTGGGAGCTGGAGACCCTCTCAGTCCCTTGCATCCAGCGCGGCCTCTGCAAATGGCAGCCGAACCCATCT
CGGCTAGGCAGCCAGCTCTGCGGCCGCACGTCCACAAGCAGCCGGAGAAGACCACCCGAGTGCGGACTGT
GCTCAACGAGAAGCAGCTGCACACCTTGCGGACCTGCTATGCCGCCAACCCTCGGCCAGATGCGCTCATG
AAGGAGCAACTAGTGGAGATGACGGGCCTCAGTCCCAGAGTCATCCGAGTGTGGTTTCAAAACAAGCGGT
GCAAGGACAAGAAACGCAGCATCATGATGAAGCAGCTCCAGCAGCAGCAACCCAACGACAAAACTAATAT
CCAGGGGATGACAGGAACTCCCATGGTGGCTGCTAGTCCGGAGAGACATGATGGTGGTTTACAGGCTAAC
CCAGTAGAGGTGCAAAGTTACCAGCCGCCCTGGAAAGTACTGAGTGACTTCGCCTTGCAAAGCGACATAG
ATCAGCCTGCTTTTCAGCAACTGGTCAATTTTTCAGAAGGAGGACCAGGCTCTAATTCTACTGGCAGTGA
AGTAGCATCGATGTCCTCGCAGCTCCCAGATACACCCAACAGCATGGTAGCCAGTCCTATTGAGGCA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

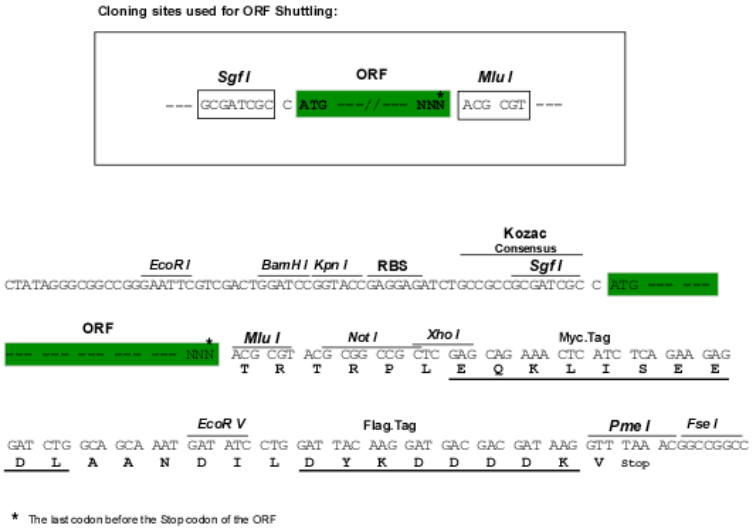
>MR227038 protein sequence
Red=Cloning site Green=Tags(s)

MGDMGDPPKKKRLISLCVGCGNQIHDQYILRVSPDLEWHAACLKCAECNQYLDESCTCFVRDGKTYCKRD
YIRLYGIKCAKCSIGFSKNDFVMRARSKVYHIECFRCVACSRQLIPGDEFALREDGLFCRADHDVVERAS
LGAGDPLSPLHPARPLQMAAEPISARQPALRPHVHKQPEKTTRVRTVLNEKQLHTLRTCYAANPRPDALM
KEQLVEMTGLSPRVIRVWFQNKRCKDKKRSIMMKQLQQQQPNDKTNIQGMTGTPMVAASPERHDGGLQAN
PVEVQSYQPPWKVLSDFALQSDIDQPAFQQLVNFSEGGPGSNSTGSEVASMSSQLPDTPNSMVASPIEA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_021459

ORF Size: 1047 bp

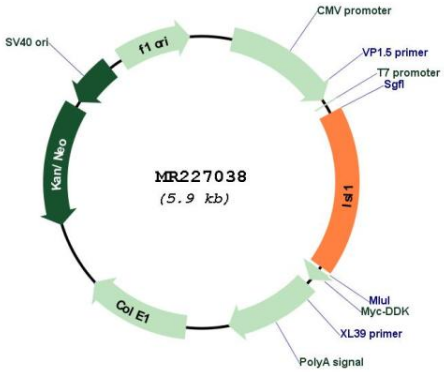
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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_021459.1, NM_021459.2, NM_021459.3, NM_021459.4, NP_067434.3
RefSeq Size:	2526 bp
RefSeq ORF:	1050 bp
Locus ID:	16392
UniProt ID:	P61372
Cytogenetics:	13 D2.2
MW:	39 kDa
Gene Summary:	DNA-binding transcriptional activator (PubMed:14664703, PubMed:24643061, PubMed:25775587, PubMed:22343712). Recognizes and binds to the consensus octamer binding site 5'-ATAATTAA-3' in promoter of target genes (PubMed:24643061, PubMed:25775587). Plays a fundamental role in the gene regulatory network essential for retinal ganglion cell (RGC) differentiation (PubMed:25775587). Cooperates with the transcription factor POU4F2 to achieve maximal levels of expression of RGC target genes and RGC fate specification in the developing retina (PubMed:24643061, PubMed:25775587). Involved in the specification of motor neurons in cooperation with LHX3 and LDB1 (PubMed:18583962). Binds to insulin gene enhancer sequences (By similarity). Essential for heart development. Marker of one progenitor cell population that give rise to the outflow tract, right ventricle, a subset of left ventricular cells, and a large number of atrial cells as well, its function is required for these progenitors to contribute to the heart. Controls the expression of FGF and BMP growth factors in this cell population and is required for proliferation and survival of cells within pharyngeal foregut endoderm and adjacent splanchnic mesoderm as well as for migration of cardiac progenitors into the heart (PubMed:14667410).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR227038