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Product datasheet for MR228416

Csrp3 (NM_001198841) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Csrp3 (NM_001198841) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Csrp3
Synonyms:	CRP3; MLP; MMLP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR228416 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCAAACTGGGGTGGAGGTGCAAAATGTGGAGCCTGTGAAAAGACGGTCTACCATGCAGAAGAAATCC
AGTGCAATGGGAGGAGTTTCCACAAGACCTGTTTCCACTGCATGGCCTGCAGGAAAGCTCTGGACAGCAC
CACAGTGGCAGCTCATGAGTCAGAGATCTACTGTAAGGTGTGCTATGGGCGCAGGTATGGCCCCAAGGGG
ATCGGGTTCGGACAAGGCGCTGGCTGCCTCAGCACAGACACTGGCGAGCATCTTGGCCTGCAGTTCCAAC
AATCCCCAAAGCCAGCTCGAGCAGCCACCACAAGCAACCCTTCCAAATTCTCTGCAAAGTTTGGAGAATC
AGAGAAGTGCCCACGATGTGGAAAGTCGGTATACGCTGCTGAGAAGGTCATGGGAGGTGGCAAGCCCTGG
CACAAGACCTGCTTCCGCTGTGCCATCTGTGGGAAGAGCCTGGAGTCTACAAATGTCACTGACAAGGATG
GGGAGCTCTACTGCAAAGTTTGCTATGCCAAAAATTTTGGCCCCACAGGCATTGGGTTTGGAGGGCTTAC
ACAGCAAGTGGAAAAGAAGGAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR228416 protein sequence
Red=Cloning site Green=Tags(s)

MPNWGGGAKCGACEKTVYHAEEIQCNGRSFHKTCFHCMACRKALDSTTVAAHESEIYCKVCYGRRYGPKG
IGFGQGAGCLSTDTGEHLGLQFQQSPKPARAATTSNPSKFSAKFGESEKCPRCGKSVYAAEKVMGGGKPW
HKTCFRCAICGKSLESTNVTDKDGELYCKVCYAKNFGPTGIGFGGLTQQVEKKE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

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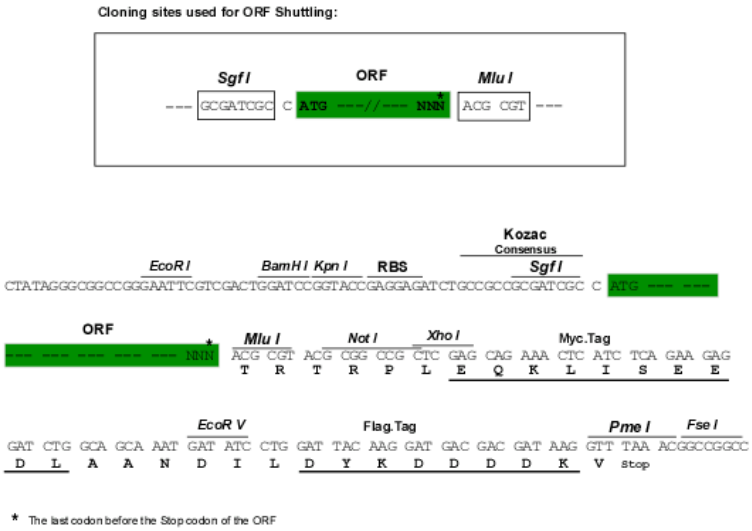
Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001198841

ORF Size: 582 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_001198841.1, NP_001185770.1

RefSeq Size: 1035 bp

RefSeq ORF: 585 bp

Locus ID: 13009

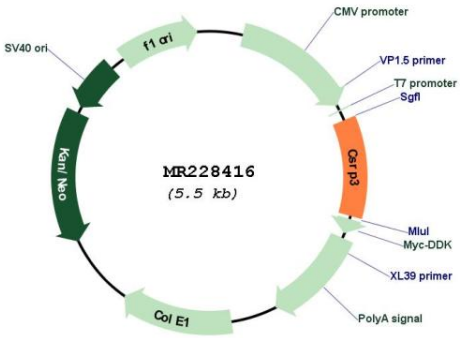
UniProt ID: P50462

Cytogenetics: 7 B4

MW: 20.9 kDa

Gene Summary: Positive regulator of myogenesis. Acts as cofactor for myogenic bHLH transcription factors such as MYOD1, and probably MYOG and MYF6. Enhances the DNA-binding activity of the MYOD1:TCF3 isoform E47 complex and may promote formation of a functional MYOD1:TCF3 isoform E47:MEF2A complex involved in myogenesis (By similarity). Plays a crucial and specific role in the organization of cytosolic structures in cardiomyocytes. Could play a role in mechanical stretch sensing. May be a scaffold protein that promotes the assembly of interacting proteins at Z-line structures. It is essential for calcineurin anchorage to the Z line. Required for stress-induced calcineurin-NFAT activation (PubMed:9039266, PubMed:15665106). The role in regulation of cytoskeleton dynamics by association with CFL2 is reported conflictingly. Proposed to contribute to the maintenance of muscle cell integerity through an actin-based mechanism. Can directly bind to actin filaments, cross-link actin filaments into bundles without polarity selectivity and protect them from dilution- and cofilin-mediated depolymerization; the function seems to involve its self-association (By similarity). In vitro can inhibit PKC/PRKCA activity. Proposed to be involved in cardiac stress signaling by down-regulating excessive PKC/PRKCA signaling (PubMed:27353086).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR228416