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Product datasheet for RC209918

SURF1 (NM_003172) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SURF1 (NM_003172) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SURF1
Synonyms:	CMT4K; MC4DN1; SHY1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC209918 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGCGGTGGCTGCGTTGCAGCTGGGGCTGCGGGCGGCGGGGCTGGGACGGGCCCCGGCCAGCGCCG
CCTGGAGGAGCGTCCTCAGGGTCTCCCCGCGCCCAGGGGTGGCCTGGAGGCCAAGCAGATGTGGCAGTTC
TGCAGCAGAAGCATCTGCCACAAAAGCGGAAGATGACTCCTTTCTTCAGTGGGTCCTGCTCCTCATCCCT
GTGACTGCCTTTGGCTTGGGGACATGGCAGGTCCAGCGTCGGAAGTGGAAGCTGAACCTGATTGCAGAGC
TGGAGTCCAGAGTTCTGGCTGAGCCTGTCCCTCTGCCAGCCGACCCAATGGAACTGAAAAATCTGGAGTA
TAGGCCAGTGAAGGTCAGGGGGTGCTTTGACCATTCCAAGGAGCTGTATATGATGCCCCGGACCATGGTG
GACCCTGTCCGGGAGGCCCGGGAGGGCGGCCTCATCTCCTCCTCAACTCAGAGTGGGGCCTATGTGGTCA
CTCCCTTCCACTGCACCGACCTGGGAGTCACCATCCTGGTAAATAGAGGGTTCGTTCCCAGGAAGAAAGT
GAATCCTGAAACGCGGCAGAAAGGCCAGATTGAGGGAGAAGTGGACCTCATTGGGATGGTGAGGCTGACA
GAAACCAGGCAGCCTTTTGTCCCTGAGAACAATCCAGAAAGGAACCACTGGCATTATCGAGACCTGGAAG
CTATGGCCAGAATCACAGGCGCAGAGCCCATCTTCATTGATGCCAACTTCCAGAGCACAGTCCCTGGAGG
ACCCATTGGAGGGCAAACCAGAGTTACTCTGAGGAACGAGCATCTGCAGTACATCGTGACCTGGTATGGA
CTCTCTGCAGCTACATCCTACCTGTGGTTTAAGAAATTCCTACGTGGGACACCTGGTGTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC209918 protein sequence
Red=Cloning site Green=Tags(s)

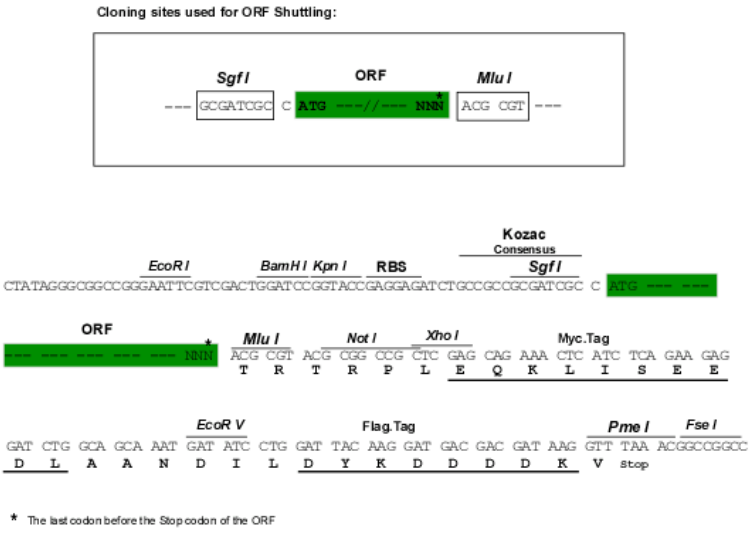
MAAVAALQLGLRAAGLGRAPASAAWRSVLRVSPRPGVAWRPSRCGSSAAEASATKAEDDSFLQWVLLLIP
VTAFGLGTWQVQRRKWKLNLIAELESRVLAEPVPLPADPMELKNLEYRPVKVRGCFDHSKELYMMPRTMV
DPVREAREGGLISSSTQSGAYVVTPFHCTDLGVTILVNRGFVPRKKVNPETRQKGQIEGEVDLIGMVRLT
ETRQPFVPENNPERNHWHYRDLEAMARITGAEPIFIDANFQSTVPGGPIGGQTRVTLRNEHLQYIVTWYG
LSAATSYLWFKKFLRGTPGV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6363_e02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003172

ORF Size: 900 bp

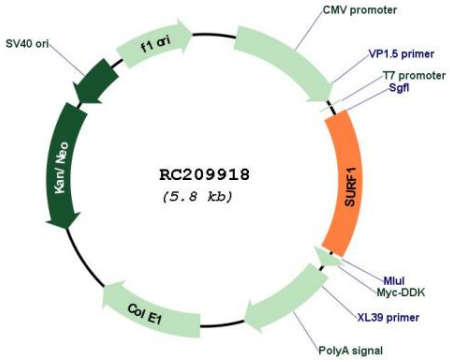
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

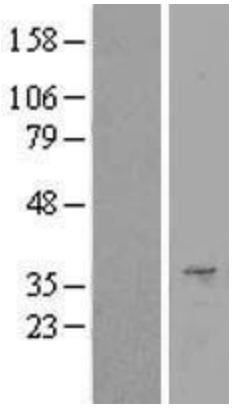
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
RefSeq:	NM_003172.4
RefSeq Size:	1046 bp
RefSeq ORF:	903 bp
Locus ID:	6834
UniProt ID:	Q15526
Cytogenetics:	9q34.2
Domains:	SURF1
Protein Families:	Druggable Genome
MW:	33.3 kDa
Gene Summary:	This gene encodes a protein localized to the inner mitochondrial membrane and thought to be involved in the biogenesis of the cytochrome c oxidase complex. The protein is a member of the SURF1 family, which includes the related yeast protein SHY1 and rickettsial protein RP733. The gene is located in the surfeit gene cluster, a group of very tightly linked genes that do not share sequence similarity, where it shares a bidirectional promoter with SURF2 on the opposite strand. Defects in this gene are a cause of Leigh syndrome, a severe neurological disorder that is commonly associated with systemic cytochrome c oxidase deficiency. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC209918



Western blot validation of overexpression lysate (Cat# [LY418861]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209918 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).