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Product datasheet for RC211092

SUMF1 (NM_182760) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SUMF1 (NM_182760) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SUMF1
Synonyms:	AAPA3037; FGE; UNQ3037
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC211092 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTGCGCCCGCACTAGGGCTGGTGTGTGGACGTTGCCCTGAGCTGGGTCTCGTCCTCTTGCTGCTGC
TGCTCTCGCTGCTGTGTGGAGCGGCAGGGAGCCAGGAGGCCGGGACCGGTGCGGGCGCGGGGTCCCTTGC
GGGTTCTTGCGGCTGCGGCACGCCCCAGCGGCCTGGCGCCCATGGCAGTTCGGCAGCCGCTCACCGATAC
TCGCGGGAGGCTAACGCTCCGGGCCCCGTACCCGGAGAGCGGCAACTCGCGCACTCAAAGATGGTCCCCA
TCCCTGCTGGAGTATTTACAATGGGCACAGATGATCCTCAGATAAAGCAGGATGGGGAAGCACCTGCGAG
GAGAGTTACTATTGATGCCTTTTACATGGATGCCTATGAAGTCAGTAATACTGAATTTGAGAAGTTTGTG
AACTCAACTGGCTATTTGACAGAGGCTGAGAAGTTTGGCGACTCCTTTGTCTTTGAAGGCATGTTGAGTG
AGCAAGTGAAGACCAATATTCAACAGGCAGTTGCAGCTGCTCCCTGGTGGTTACCTGTGAAAGGCGCTAA
CTGGAGACACCCAGAAGGGCCTGACTCTACTATTCTGCACAGGCCGGATCATCCAGTTCTCCATGTGTCC
TGGAATGATGCGGTTGCCTACTGCACTTGGGCAGGGAAGCGGCTGCCCACGGAAGCTGAGTGGGAATACA
GCTGTCGAGGAGGCCTGCATAATAGACTTTTCCCCTGGGGCAACAAACTGCAGCCCAAAGGCCAGCATTA
TGCCAACATTTGGCAGGGCGAGTTTCCGGTGACCAACACTGGTGAGGATGGCTTCCAAGGAACTGCGCCT
GTTGATGCCTTCCCTCCCAATGGTTATGGCTTATACAACATAGTGGGGAACGCATGGGAATGGACTTCAG
ACTGGTGGACTGTTCATCATTCTGTTGAAGAAACGCTTAACCCAAAAGGTCCCCCTTCTGGGAAAGACCG
AGTGAAGAAAGGTGGATCCTACATGTGCCATAGGTCTTATTGTTACAGGTATCGCTGTGCTGCTCGGAGC
CAGAACACACCTGATAGCTCTGCTTCGAATCTGGGATTCCGCTGTGCAGCCGACCGCCTGCCCACTATGG
AC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC211092 protein sequence
Red=Cloning site Green=Tags(s)

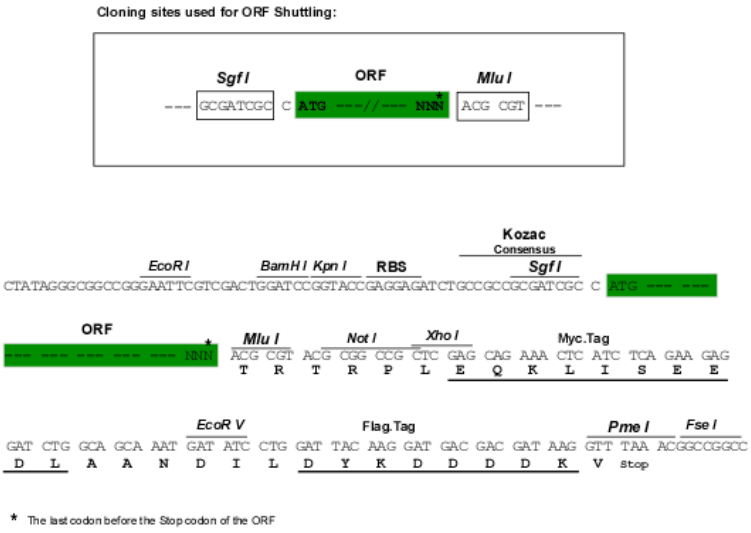
MAAPALGLVCGRCPELGLVLLLLLLSLLCGAAGSQEAGTGAGAGSLAGSCGCGTPQRPGAHGSSAAAHRY
SREANAPGPVPGERQLAHSKMVPIPAGVFTMGTDDPQIKQDGEAPARRVTIDAFYMDAYEVSNTEFEKFV
NSTGYLTEAEKFGDSFVFEGMLSEQVKTNIQQAVAAAPWWLPVKGANWRHPEGPDSTILHRPDHPVLHVS
WNDAVAYCTWAGKRLPTEAEWEYSCRGGLHNRLFPWGNKLQPKGQHYANIWQGEFPVTNTGEDGFQGTAP
VDAFPPNGYGLYNIVGNAWEWTSDWWTVHHSVEETLNPKGPPSGKDRVKKGGSYMCHRSYCYRYRCAARS
QNTPDSSASNLGFRCAADRLPTMD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6378_a01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_182760

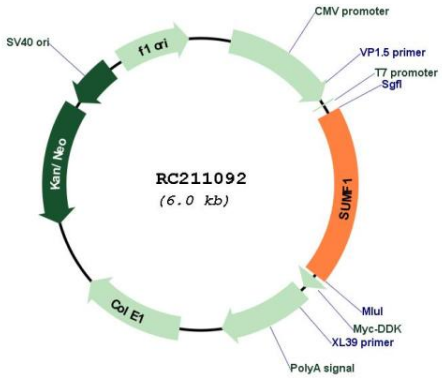
ORF Size: 1122 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

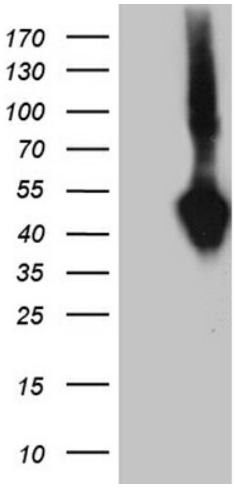
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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_182760.4
RefSeq Size:	2179 bp
RefSeq ORF:	1125 bp
Locus ID:	285362
UniProt ID:	Q8NBK3
Cytogenetics:	3p26.1
MW:	40.6 kDa
Gene Summary:	This gene encodes an enzyme that catalyzes the hydrolysis of sulfate esters by oxidizing a cysteine residue in the substrate sulfatase to an active site 3-oxoalanine residue, which is also known as C-alpha-formylglycine. Mutations in this gene cause multiple sulfatase deficiency, a lysosomal storage disorder. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2009]

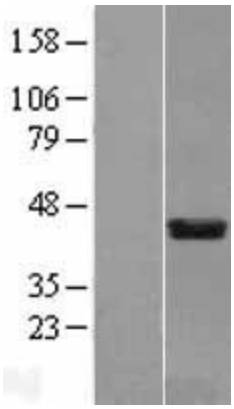
Product images:



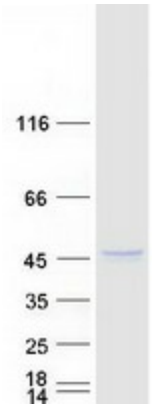
Circular map for RC211092



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY SUMF1 (Cat# RC211092, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-SUMF1 (Cat# [TA800632])(1:500). Positive lysates [LY405331] (100ug) and [LC405331] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY405331]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211092 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SUMF1 protein (Cat# [TP311092]). The protein was produced from HEK293T cells transfected with SUMF1 cDNA clone (Cat# RC211092) using MegaTran 2.0 (Cat# [TT210002]).