

Product datasheet for **RC221582**

Sulfatase 2 (SULF2) (NM_198596) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sulfatase 2 (SULF2) (NM_198596) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Sulfatase 2
Synonyms:	HSULF-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC221582 representing NM_198596
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGCCCCCGAGCCTCGTGCTGTGCTTGTGTCCGCAACTGTGTTCTCCCTGCTGGGTGGAAGCTCGG
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 CCTGGTGTGACGGACGACAGGATGTGGAGCTGGGTTCCATGCAGGTGATGAACAAGACCCGGCGCATC
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 CCATCCTCACTGGCAAGTACGTCCACAACCACAACACCTACACCAACAATGAGAACTGCTCCTCGCCCTC
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 TTA AAAA CTCCGCTTTTATAACTACACGCTGTGTGGAACGGGTGAAAGAGAAGCAGGCTCCGACTA
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC221582 representing NM_198596
Red=Cloning site Green=Tags(s)

MGPPSLVCLLSATVFSLLGGSSAFLSHHRLKGRFQDRRNIRPNIILVLTDDQDVELGSMQVMNKTRRI
MEQGGAHFINAFVTPMCCPSRSSILTGKYVHNHNTYTNNENCSSPSWQAQHSRTFAVYLNSTGYRTAF
FGKYLNEYNGSYVPPGWKEWGLLKNSRFYNYTLCRNGVKEKHGSDYSKDYLTDLITNDSVSFFRTSKKM
YPHRPVLMVISHAAPHGPEDSAPQYSRLFPNASQHITPSYNYAPNPDKHWMRYTGPMKPIHMEFTNMLQ
RKRLQTLMSVDDSMETIYNMLVETGELDNTYIVYTADHGVIHQFGLVKGKSMPIYEFDIRVPFYVRGPNV
EAGCLNPHIVLNIDLAPTILDIAGLDIPADMGGKILKLLDTERPVNRFHLKKKMRVWRDSFLVERGKLL
HKRDNDKVDAAQENFLPKYQVRVKDLQRAEYQTACEQLGQKWQCVEDATGKLKLHKCKGPMRLGGSRAL
NLVPKYYQGSEACTCDSDGYKLSLAGRRKKLFKKKYKASYVRSRSIRSAIEVDGRVYHVGLGDAQPR
NLTKRHWPAPEDQDDKGGDFSGTGGLPDYSAANPIKVTHRCYILENDTVQCDLKYSLQAWKDHKLH
IDHEIETLQNKIKNLREVRGHLKKRPEECDCHKISYHTQHKGRKLRGSSLPFRKGLQEKKVWLLRE
QKRKKKLRLKRLQNNDTCMPGLTCFTHDNQHWQTAPFWTLGPFCCTSANNTYWCMTINETHNFL
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QYRQQLWEGWEG

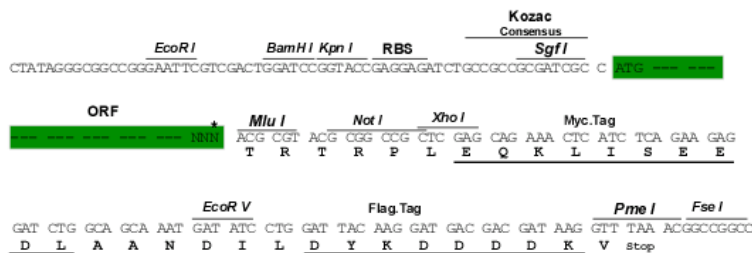
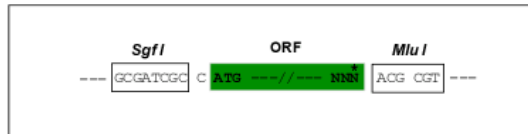
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3853_h01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



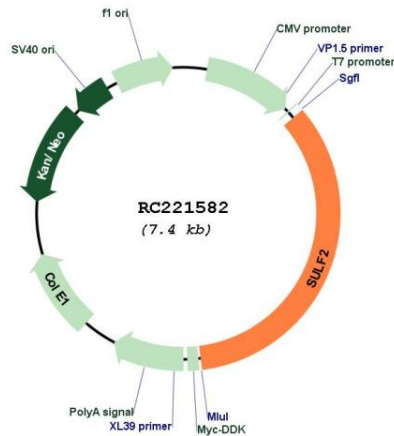
* The last codon before the Stop codon of the ORF

ACCN:	NM_198596
ORF Size:	2556 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_198596.1 , NP_940998.1
RefSeq Size:	3843 bp
RefSeq ORF:	2604 bp
Locus ID:	55959
UniProt ID:	Q8IWU5
Cytogenetics:	20q13.12
Protein Families:	Druggable Genome, Transmembrane
MW:	100 kDa

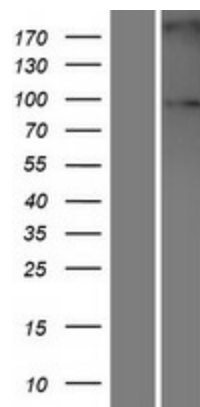
Gene Summary:

Heparan sulfate proteoglycans (HSPGs) act as coreceptors for numerous heparin-binding growth factors and cytokines and are involved in cell signaling. Heparan sulfate 6-O-endosulfatases, such as SULF2, selectively remove 6-O-sulfate groups from heparan sulfate. This activity modulates the effects of heparan sulfate by altering binding sites for signaling molecules (Dai et al., 2005 [PubMed 16192265]).[supplied by OMIM, Mar 2008]

Product images:



Circular map for RC221582



Western blot validation of overexpression lysate (Cat# [LY404800]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221582 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).