

Product datasheet for **RC229033**

Sulfatase 2 (SULF2) (NM_001161841) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sulfatase 2 (SULF2) (NM_001161841) 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:

>RC229033 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGGCCCCCGAGCCTCGTGCTGTGCTTGTGTCGCGCAACTGTGTTCTCCCTGCTGGTGGAAGCTCGG
 CCTTCCTGTCGCACCACCGCCTGAAAGGCAGGTTTCAGAGGGACCGCAGGAACATCCGCCCAACATCAT
 CCTGGTGTGACGGACGACCAGGATGTGGAGCTGGGTTCCATGCAGGTGATGAACAAGACCCGGCGCATC
 ATGGAGCAGGGCGGGGCGCACTTCATCAACGCCTTCGTGACCACACCCATGTGCTGCCCTCACGCTCCT
 CCATCCTCACTGGCAAGTACGTCCACAACCACAACACCTACACCAACAATGAGAAGTGTCTCGCCCTC
 CTGGCAGGCACAGCAGAGACCGCACCTTTGCCGTGTACCTCAATAGCACTGGTACCGGACAGCTTTC
 TTCGGGAAGTATCTTAATGAATACAACGGCTCCTACGTGCCACCCGGCTGGAAGGAGTGGTTCGGACTCC
 TTAAGAACTCCCCTTTATAACTACACGCTGTGTCGGAACGGGTGAAAGAGAAGCAGCGCTCCGACTA
 CTCCAAGGATTACCTCACAGACCTCATACCAATGACAGCGTGAGCTTCTCCGCAGTCCAAGAAGATG
 TACCCGCACAGGCCAGTCTCATGGTATCAGCCATGCAGCCCCACGGCCCTGAGGATTACAGCCCCAC
 AATATTACGCCTCTTCCCAAACGCATCTCAGCACATCACGCCGAGTACAACACTACGCGCCAACCCGGA
 CAAACTGGATCATGCGCTACACGGGGCCATGAAGCCCATCCACATGGAATTCACCAACATGCTCCAG
 CGGAAGCGCTTGCAGACCCTCATGTGCTGGACGACTCCATGGAGACGATTTACAACATGCTGGTTGAGA
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 GGTGAAAGGAAATCCATGCCATATGAGTTTGACATCAGGGTCCCCTTACGTGAGGGGCCCAACGTG
 GAAGCCGGCTGTGTAATCCCCACATCGTCTCAACATTGACCTGGCCCCACCATCCTGGACATGGCAG
 GCCTGGACATACCTGCGGATATGGACGGGAAATCCATCCTCAAGCTGCTGGACACGGGCGCGGTGAA
 TCGGTTTTCACTTGAAAAAGAAGATGAGGGTCTGGCGGGACTCCTTCTGGTGGAGAGGCAAGCTGCTA
 CACAAGAGAGACAATGACAAGGTGGACGCCAGGAGGAGAACTTCTGCCCAAGTACCAGCGTGTGAAGG
 ACCTGTGTGAGCGTGTGAGTACCAGACGGCGTGTGAGCAGCTGGGACAGAAGTGGCAGTGTGTGGAGGA
 CGCCACGGGGAAGCTGAAGCTGCATAAGTGCAAGGGCCCATGCGGCTGGGCGGCAGCAGAGCCCTCTCC
 AACCTCGTGCCCAAGTACTACGGGCAGGGCAGCGAGGCCGTCACCTGTGACAGCGGGGACTACAAGTCA
 GCCTGGCCGACGCCGAAAAAACTCTTCAAGAAGAAGTACAAGGCCAGCTATGTCGCGAGTGCCTCCAT
 CCGCTCAGTGGCCATCGAGGTGGACGGCAGGGTGTACCACGTAGGCTGGGTGATGCCGCCAGCCCCGA
 AACCTCACCAAGCGGCACTGGCCAGGGGCCCTGAGGACCAAGATGACAAGGATGGTGGGACTTCAGTG
 GCACTGGAGGCCCTTCCCGACTACTCAGCCGCCAACCCATTAAAGTGACACATCGGTGCTACATCTAGA
 GAACGACACAGTCCAGTGTGACCTGGACCTGTACAAGTCCCTGCAGGCCTGGAAAGACCACAAGTGCAC
 ATCGACCACGAGATTGAAACCCTGCAGAACAAAATTAAGAACCTGAGGGAAGTCCGAGGTACCTGAAGA
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 CAGAGGCTCCAGTCTGCATCCTTTCAGGAAGGGCCTGCAAGAGAAGGACAAGGTGTGGCTGTTGCGGGAG
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 GCCTCACGTGCTTCACCCAGACAACAGCACTGGCAGACGGCGCCTTTCTGGACTGGGGCCTTTCTG
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 TTCTGTGAATTTGCAACTGGCTTCTAGAGTACTTTGATCTCAACACAGACCCCTACCAGCTGATGAATG
 CAGTGAACACACTGGACAGGGATGTCCTCAACCAGCTACACGTACAGCTCATGGAGCTGAGGAGTGCAA
 GGGTTACAAGCAGTGTAAACCCCGGACTCGAAACATGGACCTGGGACTTAAAGATGGAGGAAGCTATGAG
 CAATACAGGCAGTTTCAGCGTCGAAAGTGGCCAGAAATGAAGAGACCTTCTTCCAATCACTGGGACAAC
 TGTGGGAAGCTGGGAAGT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC229033 protein sequence
 Red=Cloning site Green=Tags(s)

MGPPSLVLCLLSATVFSLLGGSSAFLSHHRLKGRFQRDRRNIRPNIILVLTDDQDVELGSMQVMNKTRRI
 MEQGGAHFINAFVTPMCCPSRSSILTGKYVHNHNTYTNNENCSPPSWQAQHESTRFAVYLNSTGYRTAF
 FGKYLNEYNGSYVPPGWKEWVGLLKNSRFYNYTLCRNGVKEKHGSDYSKDYLTDLITNDSVSFFRTSKKM
 YPHRPVLMVISHAAPHGPEDSAPQYSRLFPNASQHITPSYNYAPNPKHWIMRYTGPMKPIHMEFTNMLQ
 RKRLQTLMSVDDSMETIYNMLVETGELDNTYIVYTADHGVIHQFGLVKGKSMPEYFDIRVPFYVRGPNV
 EAGCLNPHIVLNIIDLAPTILDIAGLDIPADMGGKSIKLLDTERPVNRFHLKKKMRVWRDVSFLVERGKLL
 HKRDNDKVAQEENFLPKYQRVKDLQRAEYQTACEQLGQKWQCVEDATGKLLKHKCKGPMRLGGSRAL
 NLVPKYQGQSEACTCDSDGYKLSLAGRRKLFKKKYKASYVRSRSIRSVAIEVDGRVYHVGLGDAQPR
 NLTKRHWPAPEDQDDKGGDFSGTGGLPDYSAANPIKVTHRCYILENDTVQCDLQDLKSLQAWKDKLH
 IDHEIETLQNKIKNLREVRGHLKKRPEECDCHKISYHTQHKGRLLKRGSSLHPFRKGLQEKDVKWLLRE
 QKRRKKLRKLLKRLQNNDTCSMPGLTCFTHDNQHWQAPFWTLGPFCACTSANNNTYWCMTINEHNF
 FCEFATGFLEYFDLNTDPYQLMNAVNTLDRDVLNQLHVQLMELRSCKGKQCNPRTNMDLGLKDGGSYE
 QYRQFQRRKWPEMKRPSSKSLGQLWEGWEG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6446_g03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

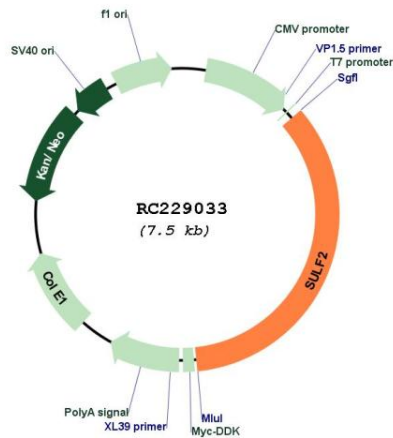
Cloning sites used for ORF Shuttling:



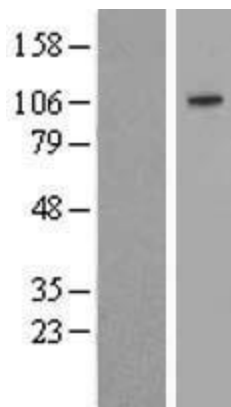
* The last codon before the Stop codon of the ORF

ACCN:	NM_001161841
ORF Size:	2610 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:	<ol style="list-style-type: none">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_001161841.1 , NP_001155313.1
RefSeq Size:	4248 bp
RefSeq ORF:	2613 bp
Locus ID:	55959
UniProt ID:	Q8IWU5
Cytogenetics:	20q13.12
Protein Families:	Druggable Genome, Transmembrane
MW:	100.5 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 RC229033



Western blot validation of overexpression lysate (Cat# [LY432060]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC229033 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).