

Product datasheet for **RG229033**

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:	TurboGFP
Symbol:	SULF2
Synonyms:	HSULF-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG229033 representing NM_001161841
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGCCCCCGAGCCTCGTGCTGTGCTTGTGTCCGCAACTGTGTTCTCCCTGCTGGTGGAAGCTCGG
 CCTTCCTGTCGCACCACCGCCTGAAAGGCAGGTTTCAGAGGGACCGCAGGAACATCCGCCCAACATCAT
 CCTGGTGTGACGGACGACCAGGATGTGGAGCTGGGTTCCATGCAGGTGATGAACAAGACCCGGCGCATC
 ATGGAGCAGGGCGGGGCGCACTTCATCAACGCCTTCGTGACCACACCCATGTGCTGCCCTCACGCTCCT
 CCATCCTCACTGGCAAGTACGTCCACAACCACAACACCTACACCAACAATGAGAAGTGTCTCGCCCTC
 CTGGCAGGCACAGCAGAGACCGCACCTTTGCCGTGTACCTCAATAGCACTGGTACCGGACAGCTTTC
 TTCGGGAAGTATCTTAATGAATAACAACGGCTCCTACGTGCCACCCGGCTGGAAGGAGTGGTTCGGACTCC
 TAAAAAATCCCCTTTTATAACTACACGCTGTGTCGGAACGGGTGAAAGAGAAGCAGCGCTCCGACTA
 CTCCAAGGATTACCTCACAGACCTCATACCAATGACAGCGTGAGCTTCTCCGCAGTCCAAGAAGATG
 TACCCGCACAGGCCAGTCTCATGGTCATCAGCCATGCAGCCCCACGGCCCTGAGGATTCAGCCCCAC
 AATATTACGCCTCTTCCCAAACGCATCTCAGCACATCACGCCGAGCTACAACACGCGCCAACCCGGA
 CAAACTGGATCATGCGCTACACGGGGCCATGAAGCCCATCCACATGGAATTCACCAACATGCTCCAG
 CGGAAGCGCTTGCAGACCCTCATGTGCGTGGACGACTCCATGGAGACGATTTACAACATGCTGGTTGAGA
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 GGTGAAAGGGAATCCATGCCATATGAGTTTGACATCAGGGTCCCCTTACGTGAGGGGCCCAACGTG
 GAAGCCGGCTGTCTGAATCCCCACATCGTCTCAACATTGACCTGGCCCCACCATCTGGACATTGCGA
 GCCTGGACATACCTGCGGATATGGACGGGAAATCCATCCTCAAGCTGCTGGACAGCGGCGCGGTGAA
 TCGGTTTCACTTGAAAAAGAAGATGAGGGTCTGGCGGGACTCCTTCTTGGTGGAGAGGCAAGCTGCTA
 CACAAGAGAGACAATGACAAGGTGGACGCCAGGAGGAGAACTTCTGCCCAAGTACCAGCGTGTGAAGG
 ACCTGTGTGAGCGTGTGAGTACCAGACGGCGTGTGAGCAGCTGGGACAGAAGTGGCAGTGTGTGGAGGA
 CGCCACGGGGAAGCTGAAGCTGCATAAGTGCAAGGGCCCATGCGGCTGGGCGGCAGCAGAGCCCTCTCC
 AACCTCGTGCCCAAGTACTACGGGCAGGGCAGCGAGGCCGTCACCTGTGACAGCGGGGACTACAAGCTCA
 GCCTGGCCGACGCCGAAAAAATCTTCAAGAAGAAGTACAAGGCCAGCTATGTCGCGAGTGCCTCCAT
 CCGCTCAGTGGCCATCGAGGTGGACGGCAGGGTGTACCACGTAGGCTGGGTGATGCCGCCAGCCCCGA
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 TTCTGTGAATTTGCAACTGGCTTCTAGAGTACTTTGATCTCAACACAGACCCCTACCAGCTGATGAATG
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 GGGTTACAAGCAGTGTAAACCCCGGACTCGAAACATGGACCTGGGACTTAAAGATGGAGGAAGCTATGAG
 CAATACAGGCAGTTTCAGCGTCGAAAGTGGCCAGAAATGAAGAGACCTTCTTCCAATCACTGGGACAAC
 TGTGGGAAGCTGGGAAGT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG229033 representing NM_001161841
 Red=Cloning site Green=Tags(s)

MGPPSLVLCLLSATVFSLLGGSSAFLSHHRLKGRFQRDRRNIRPNIILVL TDDQDVELGSMQVMNKTRRI
 MEQGAHF INAFVTPMCCPSRSSILTGKYVHNHNTYTNNENCSSPSWQAQHE SRTFAVYLNSTGYRTAF
 FGKYLNEYNGSYVPPGWKEWVGLLKNSRFYNYTLCRNGVKEKHGSDYSKDYLDLITNDSVSFFRTSKKM
 YPHRPVLMVISHAAPHGPEDESAPQYSRLFPNASQHITPSYNYAPNPKHWIMRYTGPMKPIHMEFTNMLQ
 RKRLQTLMSVDDSMETIYNMLVETGELDNTYIVYTADHGYHIGQFGLVKGKSMPEYFDIRVFPFYVRGPNV
 EAGCLNPHIVLNIIDLAPTILDIAGLDIPADM DGKSILKLLDTERPVNRFHLKKKMRVWRDSFLVERGKLL
 HKRDNDKVDAQEENFLPKYQRVKDLQRAEYQTACEQLGQKWQCVEDATGKLLKHKCKGPMRLGGSRAL S
 NLVPKYQGSEACTCDSGDYKLSLAGRRKFLK KKYKASYVRSRSIRSVAIEVDGRVYHVGLGDA A QPR
 NLTKRHWPAPEDQDDKDGDFSGTGGLPDY SAANPIKVTHRCYILENDTVQCDL DLKSLQAWKDHKLH
 IDHEIETLQNKIKNLREVRGHLKKKRPEE CDCHKISYHTQHKGR LKHGSSLHPFRKGLQE KDKVWLLRE
 QKRRKKLRKLLKRLQNNDTCSMPGLTCF THDNQHWQTAPFWTLGPFCACT SANNNTYWC MRTINE THNFL
 FCEFATGFLEYFDLNTDPYQLMNAVNTL DRDVLNQLHVQLMELRSCKGYKQCNPRTRNMDLGLKDGGSYE
 QYRQFQRRKWPEMKRPSSKSLGQLWEGWEG

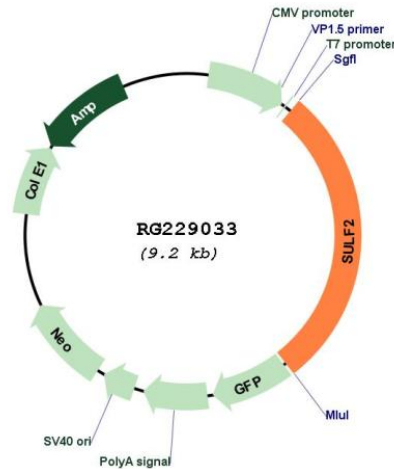
TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:


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:

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

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]