

## Product datasheet for **SC328022**

### Sulfatase 2 (SULF2) (NM\_198596) Human Untagged Clone

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids                                  |
| Product Name:             | Sulfatase 2 (SULF2) (NM_198596) Human Untagged Clone |
| Tag:                      | Tag Free   |
| 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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**Fully Sequenced ORF:** >SC328022 representing NM\_198596.  
Blue=Insert sequence Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGGGCCCCCCGAGCCTCGTGTGTGCTGTGCTGCCGCAACTGTGTTCTCCCTGCTGGTGGAAGCTCG
GCCTTCCCTGTGACACCACCGCCTGAAAGGCAGGTTTCAGAGGGACCGCAGGAACATCCGCCCAACATC
ATCCTGGTGTGACGGACGACCAGGATGTGGAGCTGGGTTCCATGCAGGTGATGAACAAGACCCGGCGC
ATCATGGAGCAGGGCGGGCGCACTTCATCAACGCCTTCGTGACCACACCCATGTGCTGCCCTCACGC
TCCTCCATCCTCACTGGCAAGTACGTCCACAACCAACACCTACACCAACAATGAGAACTGCTCCTCG
CCCTCCTGGCAGGCACAGCAGAGACCGCACCTTTGCCGTGTACCTCAATAGCACTGGCTACGGGACA
GCTTTCTCGGGAAGTATCTTAATGAATAACAACGGCTCTACGTGCCACCCGGCTGGAAGGAGTGGGTC
GGACTCCTAAAACTCCCGCTTTATAACTACACGCTGTGTCGGAACGGGGTGAAGAGAAGCACGGC
TCCGACTACTCCAAGGATTACCTCACAGACCTCATACCAATGACAGCGTGAGCTTCTCCGCACGTCC
AAGAAGATGTACCCGCACAGGCCAGTCCATGGTCATCAGCCATGCAGCCCCACGGCCCTGAGGAT
TCAGCCCCACAATATTCACGCCTTCCCAAACGCATCTCAGCACATCAGCCGAGCTACAACTACGCG
CCCAACCCGGACAACACTGGATCATGCCTACACGGGGCCATGAAGCCATCCACATGGAATACC
AACATGCTCCAGCGGAAGCGCTTGCAGACCCTCATGTCCGTGGACGACTCCATGGAGACGATTTACAAC
ATGCTGGTTGAGACGGGCGAGCTGGACAACACGTACATCGTATACACCCGACCGACCGTTACCACATC
GGCCAGTTTGGCCTGGTGAAGGGAAATCCATGCCATATGAGTTTGACATCAGGGTCCCCTTCTACGTG
AGGGGCCCAACGTGAAGCCGGCTGTCTGAATCCCCACATCGTCTCAACATTGACCTGGCCCCCACC
ATCCTGGACATTGACGGCCTGGACATACCTGCGGATATGGACGGGAAATCCATCCTCAAGCTGTGGAC
ACGGACGGCCGGTGAATCGTTTCACTTGAAGAAAGATGAGGGTCTGGCGGGACTCCTCTCTGGTG
GAGAGAGGCAAGCTGCTACACAAGAGAGACAATGACAAGGTGGACGCCAGGAGGAACTTTCTGCC
AAGTACCAGCGTGTGAAGGACCTGTGTACGCTGCTGAGTACCAGACGGCGTGTGAGCAGCTGGGACAG
AAGTGGCAGTGTGTGGAGGACGCCACGGGGAAGCTGAAGCTGCATAAGTGAAGGCCCCATGCGGCTG
GGCGGCAGCAGAGCCCTCTCAACCTCGTGCCCAAGTACTACGGGACGGGACGGAGGCTGCACCTGT
GACAGCGGGGACTACAAGCTCAGCCTGGCCGACGCCGAAAAAACTCTCAAGAAGAAGTACAAGGCC
AGCTATGTCCGAGTCCATCCGCTCAGTGGCCATCGAGGTGGACGGCAGGGTGTACCAGTAGGC
CTGGGTGATGCCGCCAGCCCCGAAACCTACCAAGCGGCACTGGCCAGGGGCCCTGAGGACCAAGAT
GACAAGGATGGTGGGACTTCAGTGGCACTGGAGCCCTCCCGACTACTCAGCCCAACCCATTAAA
GTGACACATCGGTGCTACATCCTAGAGAACGACACAGTCCAGTGTGACCTGGACCTGTACAAGTCCCTG
CAGGCCTGGAAAGACCACAAGCTGCACATCGACCACGAGATTGAAACCTGCAGAACAAAATTAAGAAC
CTGAGGGAAGTCCGAGGTCACTGAAGAAAAAGCGGCCAGAAGAAATGTGACTGTCACAAAATCAGCTAC
CACACCCAGCACAAAGCCCGCTCAAGCACAGAGGCTCCAGTCTGCATCCTTTCAGGAAGGGCCTGCAA
GAGAAGGACAAGGTGTGGCTGTTGCGGGAGCAGAAGCGCAAGAAGAACTCCGCAAGCTGCTCAAGCGC
CTGCAGAACACGACACGTGCAGCATGCCAGGCCCTCACGTGCTTACCCACGACAACCAGCACTGGCAG
ACGGCCCTTTCTGGACTGCGGCTTTCTGTGCTGCACCAGCGCCAACAATAACACGTACTGGTGC
ATGAGGACCATCAATGAGACTCACAATTTCTCTTCTGTGAATTTGCAACTGGCTTCTAGAGTACTTT
GATCTCAACACAGACCCCTACCAGTGTGAATGCAAGTGAACACACTGGACAGGGATGCTCCTCAACCAG
CTACACGTACAGCTCATGGAGCTGAGGAGCTGCAAGGTTACAAGCAGTGTAAACCCCGACTCGAAAC
ATGGACCTGGATGGAGGAAGCTATGAGCAATACAGGCAGTTTCAGCGTCGAAAGTGGCCAGAAATGAAG
AGACCTTCTTCAAATCACTGGGACAACGTGGGAAGGCTGGGAAGGTTAA
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGCGC
```

**Restriction Sites:** SgfI-MluI  
**ACCN:** NM\_198596  
**Insert Size:** 2604 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](mailto: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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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\\_198596.2](#)

**RefSeq Size:** 4239 bp

**RefSeq ORF:** 2604 bp

**Locus ID:** 55959

**UniProt ID:** [Q8IWU5](#)

**Cytogenetics:** 20q13.12

**Protein Families:** Druggable Genome, Transmembrane

**MW:** 100.2 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]

Transcript Variant: This variant (2) differs in the 5' UTR and includes an alternate in-frame splice site in the 3' coding region, compared to variant 1, resulting in an isoform (b) that is shorter than isoform a.