

## Product datasheet for **RC401470**

### Heparin Cofactor II (SERPIND1) (NM\_000185) Human Mutant ORF Clone

#### Product data:

Product Type:	Mutant ORF Clones
Product Name:	Heparin Cofactor II (SERPIND1) (NM_000185) Human Mutant ORF Clone
Mutation Description:	E447K
Affected Codon#:	447
Affected NT#:	1339
Nucleotide Mutation:	SERPIND1 Mutant (E447K), Myc-DDK-tagged ORF clone of Homo sapiens serpin peptidase inhibitor, clade D (heparin cofactor), member 1 (SERPIND1) as transfection-ready DNA
Effect:	Heparin cofactor 2 deficiency
Symbol:	SERPIND1
Synonyms:	D22S673; HC2; HCF2; HCII; HLS2; LS2; THPH10
E. coli Selection:	Kanamycin (25 ug/mL)
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
Tag:	Myc-DDK
ACCN:	NM_000185
ORF Size:	1497 bp
Restriction Sites:	Sgfi-Mlul



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**ORF Nucleotide Sequence:**

>RC401470 representing NM\_000185  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGCATCGCC

ATGAAACTCATTAAACGCACTTCTCATTTCCTCATACATAACATCTGCGTGGGGTGGGAGCAAAGGCC  
 CGCTGGATCAGCTAGAGAAAGGAGGGGAACTGCTCAGCTGCAGATCCCCAGTGGGAGCAGTTAAATAA  
 CAAAACTGAGCATGCCTCTTCTCCCTGCCGACTTCCACAAGGAAAACACCGTCACCAACGACTGGATT  
 CCAGAGGGGGAGGAGGACGACGACTATCTGGACCTGGAGAAGATATTCAGTGAAGACGACGACTACATCG  
 ACATCGTCGACAGTCTGTGAGTTCCCGACAGACTCTGATGTGAGTGTGGGAACATCTCCAGCTTTT  
 TCATGGCAAGAGCCGGATCCAGCGTCTAACATCCTCAACGCCAAGTTCGCTTTCAACCTCTACCGAGTG  
 CTGAAAGACCAGGTCAACACTTCGATAACATCTCATAGCACCCGTTGGCATTCTACTGCGATGGGTA  
 TGATTTCTTAGGTCTGAAGGGAGAGCCCATGAACAAGTGCCTCGATTTTGCATTTTAAAGACTTTGT  
 TAATGCCAGCAGCAAGTATGAAATCACGACCATTCAATCTCTCCGTAAGCTGACTCATCGCCTCTTC  
 AGGAGGAATTTGGGTACACACTGCGGTCAATGACCTTTATATCCAGAAGCAGTTTCCAATCCTGC  
 TTGACTTCAAACTAAAGTAAGAGAGTATTACTTTGCTGAGGCCAGATAGCTGACTTCTCAGACCTGC  
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 ATAGACCCTGCTACCCAGATGATGATTCTCAACTGCATCTACTCAAAGGATCCTGGGTGAATAAATTC  
 CAGTGGAAATGACACACAACCAACTTCCGGCTGAATGAGAGAGAGGTAGTTAAGGTTTCCATGATGCA  
 GACCAAGGGAACTTCTCGCAGCAATGACCAGGAGCTGGACTGCGACATCTCCAGCTGGAATACGTG  
 GGGGTCATCAGCATGCTAATTGTGGTCCCACACAAGATGTCTGGGATGAAGACCCTCGAAGCGCAACTGA  
 CACCCCGGTGGTGGAGAGATGGCAAAAAGCATGACAAACAGAACTCGAGAAGTCTTCCCGAAAT  
 CAAGCTGGAGAAGAACTACAATCTAGTGGAGTCCCTGAAAGTTGATGGGGATCAGGATGCTGTTTGACAAA  
 AATGGCAACATGGCAGGCATCTCAGACCAAGGATCGCCATCGACCTGTTCAAGCACCAAGGCACGATCA  
 CAGTGAACAAGGAAGGCACCCAAGCCCACTGTACCACGGTGGGGTTCATGCCGCTGTCCACCCAAGT  
 CCGCTTACTGTGACCCGCCCTTTCTTTCTCATCTACGAGCATCGCACCAGCTGCCTGCTCTTCATG  
 GGAAGAGTGGCAACCCAGCAGGTCC

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGA TAAGGTTTAA

**Protein Sequence:**

>RC401470 representing NM\_000185  
 Red=Cloning site Green=Tags(s)

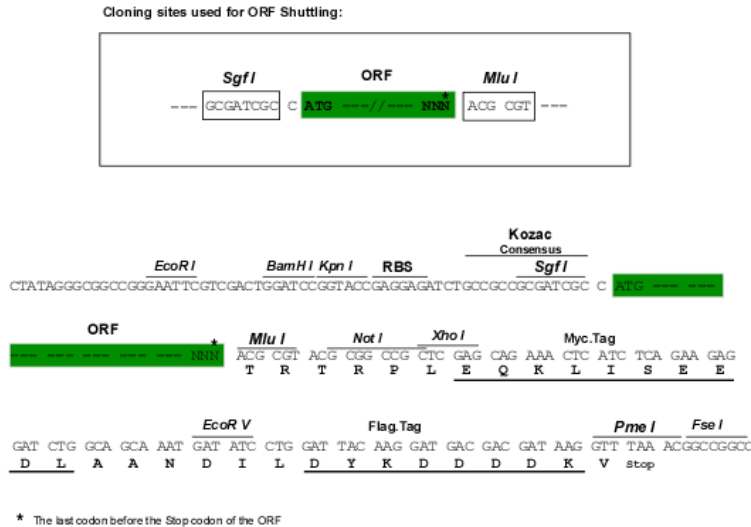
MKHSLNALLIFLIITSAWGGSKGPLDQLEKGGETAQSADPQWEQLNKNLSMPLLPADPHKENTVTNDWI  
 PEGEEDDDYLDLEKIFSEDDYIDIVDSLVSPTSDSVSAGNIIQLFHGKSRIQRLNILNAKFANLYRV  
 LKDQVNTFDNIF IAPVGI STAMGMI SLGLKGETHEQVHSILHFKDFVNASSKYEITTIHNLFRKLTHRLF  
 RRNFYGLRSVNDLYIQKQFPILLDFKTKVREYYFAEAQIADFSDPAFISKTNNHIMKLTGGLIKDALEN  
 IDPATQMMILNCIYFKGSWNKFPVEMTHNHFRLNEREVVKVSMMQTKGNFLAANDQELDCDILQLEYV  
 GGISMLIVVPHKMSGMTLEAQLTPRVVERWQKSMTNRTREVLLPKFKLEKNYNLVESLKLGMIRMLFDK  
 NGNMAGISDQRIADLFKHQGTITVNKEGTQATTVTTVGFMPLESTQVRFVDRPFLFLIYEHRTSCLLFM  
 GRVANPSRS

SGPTRRRLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



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).

RefSeq:

[NP\\_000176](#)

RefSeq Size:

1497 bp

RefSeq ORF:

1500 bp

Locus ID:

3053

Cytogenetics:

22q11.21

Domains:

SERPIN

Protein Families:

Druggable Genome

Protein Pathways:

Complement and coagulation cascades

MW:

54.9 kDa

**Gene Summary:**

This gene belongs to the serpin gene superfamily. Serpins play roles in many processes including inflammation, blood clotting, and cancer metastasis. Members of this family have highly conserved secondary structures with a reactive center loop that interacts with the protease active site to inhibit protease activity. This gene encodes a plasma serine protease that functions as a thrombin and chymotrypsin inhibitor. The protein is activated by heparin, dermatan sulfate, and glycosaminoglycans. Allelic variations in this gene are associated with heparin cofactor II deficiency. [provided by RefSeq, Jul 2015]