

Product datasheet for **RC401471**

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:	P462L
Affected Codon#:	462
Affected NT#:	1385
Nucleotide Mutation:	SERPIND1 Mutant (P462L), 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-MluI



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ORF Nucleotide Sequence:

>RC401471 representing NM_000185
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGAAACTCATTAAACGCACTTCTCATTTTCTCATCATAACATCTGCGTGGGGTGGGAGCAAAGGCC
 CGCTGGATCAGCTAGAGAAAGGAGGGGAACTGCTCAGCTGCAGATCCCCAGTGGGAGCAGTTAAATAA
 CAAAACTGAGCATGCCTTCTCCCTGCCGACTTCCACAAGGAAAACACCGTCACCAACGACTGGATT
 CCAGAGGGGGAGGAGGACGACGACTATCTGGACCTGGAGAAGATATTCAGTGAAGACGACGACTACATCG
 ACATCGTCGACAGTCTGTCTGTTTCCCGACAGACTCTGATGTGAGTGTGGGAACATCTCCAGCTTTT
 TCATGGCAAGAGCCGGATCCAGCGTCTAACATCTCAACGCCAAGTTCGCTTTCAACCTCTACCGAGTG
 CTGAAAGACCAGGTCAACACTTCGATAACATCTCATAGCACCCGTTGGCATTCTACTGCGATGGGTA
 TGATTTCTTAGGTCTGAAGGGAGAGACCCATGAACAAGTGCCTGATTTTGCATTTTAAAGACTTTGT
 TAATGCCAGCAGCAAGTATGAAATCACGACCATTCAATCTCTCCGTAAGCTGACTCATCGCCTCTTC
 AGGAGGAAATTTGGGTACACACTGCGGTCAATGACCTTTATATCCAGAAGCAGTTTCCAATCTGCT
 TTGACTTCAAACTAAAGTAAGAGAGTATTACTTTGCTGAGGCCAGATAGCTGACTTCTCAGACCTGCT
 CTTCATATCAAAAACCAACAACCACATCATGAAGCTCACCAAGGGCCTCATAAAGATGCTCTGGAGAAT
 ATAGACCTGCTACCCAGATGATGATTCTCAACTGCATCTACTCAAAGGATCCTGGGTGAATAAATTC
 CAGTGGAAATGACACACAACCAACTTCCGGCTGAATGAGAGAGAGGTAGTTAAGGTTTCCATGATGCA
 GACCAAGGGAACTTCTCGCAGCAATGACCAGGAGCTGGACTGCGACATCTCCAGCTGGAATACGTG
 GGGGCGCATCAGCATGCTAATTGTGGTCCCACACAAGATGTCTGGGATGAAGACCCTCGAAGCGCAACT
 CACCCCGGTGGTGGAGAGATGGCAAAAAGCATGACAAACAGAACTCGAGAAGTCTTCCGCAAAAT
 CAAGCTGGAGAAGAACTACAATCTAGTGGAGTCCCTGAAGTTGATGGGGATCAGGATGCTGTTTGACAAA
 AATGGCAACATGGCAGGCATCTCAGACCAAGGATCGCCATCGACCTGTTCAAGCACCAAGGCACGATCA
 CAGTGAACGAGGAAGGCACCCAAGCCCACTGTACCACGGTGGGGTTCATGCTGTGTCCACCCAAGT
 CCGCTTACTGTGACCCGCCCTTTCTTTCTCATCTACGAGCATCGCACCAGCTGCTGCTCTTCATG
 GGAAGAGTGGCAACCCAGCAGGTCC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGA TAAGGTTTAA

Protein Sequence:

>RC401471 representing NM_000185
 Red=Cloning site Green=Tags(s)

MKHSLNALLIFLIITSAWGGSKGPLDQLEKGGETAQSADPQWEQLNKNLSMPLLPADPHKENTVTNDWI
 PEGEEDDDYLDLEKIFSEDDYIDIVDSLVSPTSDSVSAGNILQLFHGKSRIQRLNILNAKFANLYRV
 LKDQVNTFDNIF IAPVGI STAMGMI SLGLKGETHEQVHSILHFKDFVNASSKYEITTIHNLFRKLT
 RRNFYGLRSVNDLYIQKQFPILLDFKTKVREYYFAEAQIADFSDFAFISKTNHIMKLTGKLIKDALEN
 IDPATQMMILNCIYFKGSWVNFVEMTHNHFRLNEREVVKSMMQTKGNFLAANDQELDCDILQLEYV
 GGISMLIVVPHKMSGMTLEAQLTPRVVERWQKSMNRTREVLLPKFKLEKNYNLVEKLMGIRMLFDK
 NGNMAGISDQRIADL FKHQGTITVNEEGTQATTVTVGFMLLSTQVRFVDRPFLFLIYEHRSTCLLFM
 GRVANPSRS

SGP**TRRRLEQKLI 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]