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Product datasheet for RC206271

Heparin Cofactor II (SERPIND1) (NM_000185) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Heparin Cofactor II (SERPIND1) (NM_000185) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Heparin Cofactor II
Synonyms:	D22S673; HC2; HCF2; HCII; HLS2; LS2; THPH10
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC206271 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAAACACTCATTAAACGCACTTCTCATTTTCCTCATCATAACATCTGCGTGGGGTGGGAGCAAAGGCC
CGCTGGATCAGCTAGAGAAAGGAGGGGAAACTGCTCAGTCTGCAGATCCCCAGTGGGAGCAGTTAAATAA
CAAAAACCTGAGCATGCCTCTTCTCCCTGCCGACTTCCACAAGGAAAACACCGTCACCAACGACTGGATT
CCAGAGGGGGAGGAGGACGACGACTATCTGGACCTGGAGAAGATATTCAGTGAAGACGACGACTACATCG
ACATCGTCGACAGTCTGTCAGTTTCCCCGACAGACTCTGATGTGAGTGCTGGGAACATCCTCCAGCTTTT
TCATGGCAAGAGCCGGATCCAGCGTCTTAACATCGTCAACGCCAAGTTCGCTTTCAACCTCTACCGAGTG
CTGAAAGACCAGGTCAACACTTTCGATAACATCTTCATAGCACCCGTTGGCATTTCTACTGCGATGGGTA
TGATTTCCTTAGGTCTGAAGGGAGAGACCCATGAACAAGTGCACTCGATTTTGCATTTTAAAGACTTTGT
TAATGCCAGCAGCAAGTATGAAATCACGACCATTCATAATCTCTTCCGTAAGCTGACTCATCGCCTCTTC
AGGAGGAATTTTGGGTACACACTGCGGTCAGTCAATGACCTTTATATCCAGAAGCAGTTTCCAATCCTGC
TTGACTTCAAAACTAAAGTAAGAGAGTATTACTTTGCTGAGGCCCAGATAGCTGACTTCTCAGACCCTGC
CTTCATATCAAAAACCAACAACCACATCATGAAGCTCACCAAGGGCCTCATAAAAGATGCTCTGGAGAAT
ATAGACCCTGCTACCCAGATGATGATTCTCAACTGCATCTACTTCAAAGGATCCTGGGTGAATAAATTCC
CAGTGGAAATGACACACAACCACAACTTCCGGCTGAATGAGAGAGAGGTAGTTAAGGTTTCCATGATGCA
GACCAAGGGGAACTTCCTCGCAGCAAATGACCAGGAGCTGGACTGCGACATCCTCCAGCTGGAATACGTG
GGGGGCATCAGCATGCTAATTGTGGTCCCACACAAGATGTCTGGGATGAAGACCCTCGAAGCGCAACTGA
CACCCGGGGTGGTGGAGAGATGGCAAAAAAGCATGACAAACAGAACTCGAGAAGTGCTTCTGCCGAAATT
CAAGCTGGAGAAGAACTACAATCTAGTGGAGTCCCTGAAGTTGATGGGGATCAGGATGCTGTTTGACAAA
AATGGCAACATGGCAGGCATCTCAGACCAAAGGATCGCCATCGACCTGTTCAAGCACCAAGGCACGATCA
CAGTGAACGAGGAAGGCACCCAAGCCACCACTGTGACCACGGTGGGGTTCATGCCGCTGTCCACCCAAGT
CCGCTTCACTGTCGACCGCCCCTTTCTTTTCCTCATCTACGAGCACCGCACCAGCTGCCTGCTCTTCATG
GGAAGAGTGGCCAACCCCAGCAGGTCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC206271 protein sequence
Red=Cloning site Green=Tags(s)

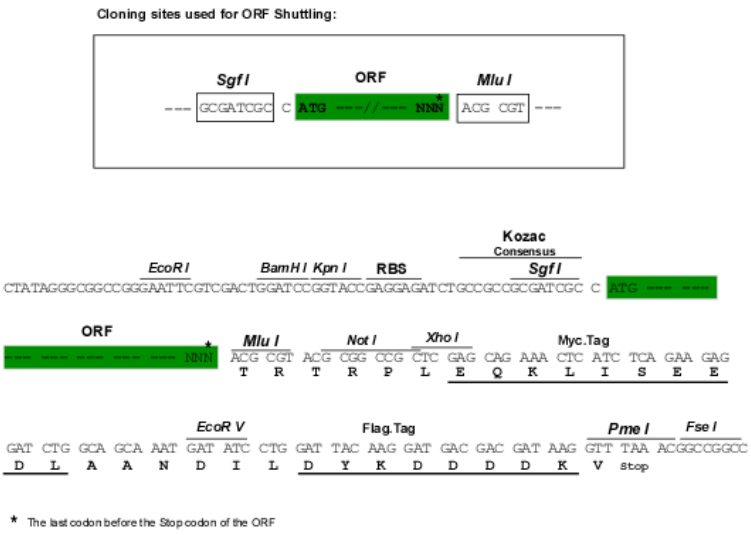
MKHSLNALLIFLIITSAWGGSKGPLDQLEKGGETAQSADPQWEQLNNKNLSMPLLPADFHKENTVTNDWI
PEGEEDDDYLDLEKIFSEDDDYIDIVDSLSVSPTDSDVSAGNILQLFHGKSRIQRLNIVNAKFAFNLYRV
LKDQVNTFDNIFIAPVGISTAMGMISLGLKGETHEQVHSILHFKDFVNASSKYEITTIHNLFRKLTHRLF
RRNFGYTLRSVNDLYIQKQFPILLDFKTKVREYYFAEAQIADFSDPAFISKTNNHIMKLTKGLIKDALEN
IDPATQMMILNCIYFKGSWVNKFPVEMTHNHNFRLNEREVVKVSMMQTKGNFLAANDQELDCDILQLEYV
GGISMLIVVPHKMSGMKTLEAQLTPGVVERWQKSMTNRTREVLLPKFKLEKNYNLVESLKLMGIRMLFDK
NGNMAGISDQRIAIDLFKHQGTITVNEEGTQATTVTTVGFMPLSTQVRFTVDRPFLFLIYEHRTSCLLFM
GRVANPSRS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6138_h07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000185

ORF Size: 1497 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_000185.4

RefSeq Size: 2237 bp

RefSeq ORF: 1500 bp

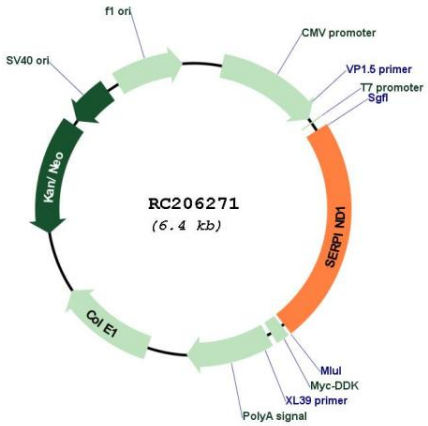
Locus ID: 3053

UniProt ID: P05546

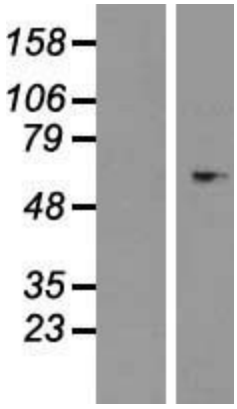
Cytogenetics: 22q11.21

Domains:	SERPIN
Protein Families:	Druggable Genome
Protein Pathways:	Complement and coagulation cascades
MW:	57 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]

Product images:



Circular map for RC206271



Western blot validation of overexpression lysate (Cat# [LY424881]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206271 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).