

Product datasheet for RC229570

Plasminogen (PLG) (NM_001168338) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Plasminogen (PLG) (NM_001168338) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: PLG
Synonyms: HAE4
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RC229570 representing NM_001168338
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGGAACATAAGGAAGTGGTTCTTCTACTTCTTTTATTCTGAAATCAGGTCAAGGAGAGCCTCTGGATG
 ACTATGTGAATACCCAGGGGCTTCACTGTTCACTGTCAGTGTACTAAGAAGCAGCTGGGAGCAGGAAGTATAGA
 AGAATGTGCAGCAAAATGTGAGGAGGACGAAGAATTCACCTGCAGGGCATTCCAATATCACAGTAAAGAG
 CAACAATGTGTGATAATGGCTGAAAACAGGAAGTCTCCATAATCATTAGGATGAGAGATGTAGTTTTAT
 TTGAAAAGAAAGTGTATCTCTCAGAGTCAAGACTGGGAATGAAAAGAACTACAGAGGGACGATGTCCAA
 AACAAAAATGGCATCACCTGTCAAAAATGGAGTTCACCTTCTCCCCACAGACCTAGG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC229570 representing NM_001168338
 Red=Cloning site Green=Tags(s)

MEHKEVLLLLLLFLKSGQGEPLDDYVNTQGASLFSVTKKQLGAGSIEECAAKCEEDEEFTCRAFQYHSKE
 QQCVIMAENRKSSIIIRMRDVVLFKVVYLSECKTNGNKNYRGTMSKTKNGITCQKWSSTSPHRPR

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI

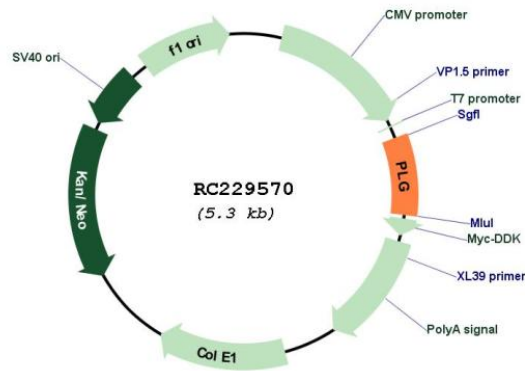


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Cloning Scheme:



Plasmid Map:



ACCN: NM_001168338

ORF Size: 408 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:	<ol style="list-style-type: none">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:	<u>NM_001168338.1</u> , <u>NP_001161810.1</u>
RefSeq ORF:	411 bp
Locus ID:	5340
Cytogenetics:	6q26
Protein Families:	Druggable Genome, Protease, Secreted Protein
Protein Pathways:	Complement and coagulation cascades, Neuroactive ligand-receptor interaction
MW:	15.9 kDa
Gene Summary:	<p>The plasminogen protein encoded by this gene is a serine protease that circulates in blood plasma as an inactive zymogen and is converted to the active protease, plasmin, by several plasminogen activators such as tissue plasminogen activator (tPA), urokinase plasminogen activator (uPA), kallikrein, and factor XII (Hageman factor). The conversion of plasminogen to plasmin involves the cleavage of the peptide bond between Arg-561 and Val-562. Plasmin cleavage also releases the angiostatin protein which inhibits angiogenesis. Plasmin degrades many blood plasma proteins, including fibrin-containing blood clots. As a serine protease, plasmin cleaves many products in addition to fibrin such as fibronectin, thrombospondin, laminin, and von Willebrand factor. Plasmin is inactivated by proteins such as alpha-2-macroglobulin and alpha-2-antiplasmin in addition to inhibitors of the various plasminogen activators. Plasminogen also interacts with plasminogen receptors which results in the retention of plasmin on cell surfaces and in plasmin-induced cell signaling. The localization of plasminogen on cell surfaces plays a role in the degradation of extracellular matrices, cell migration, inflammation, wound healing, oncogenesis, metastasis, myogenesis, muscle regeneration, neurite outgrowth, and fibrinolysis. This protein may also play a role in acute respiratory distress syndrome (ARDS) which, in part, is caused by enhanced clot formation and the suppression of fibrinolysis. Compared to other mammals, the cluster of plasminogen-like genes to which this gene belongs has been rearranged in catarrhine primates. [provided by RefSeq, May 2020]</p>