

Recombinant Human PLG protein

Cat. No. PLG-155H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human PLG protein was expressed in Escherichia coli.
Species	Human
Source	E.coli
ProteinLength	259
Description	Angiostatin, is a 30 kDa fragment of plasminogen that is encoded by the PLG gene in humans. It is produced, for example, by autoproteolytic cleavage of plasminogen, involving extracellular disulfide bond reduction by phosphoglycerate kinase. Furthermore, angiostatin can be cleaved from plasminogen by different metalloproteinases (MMPs), elastase, prostate-specific antigen (PSA), 13 kDa serine protease, or 24 kDa endopeptidase. Angiostatin is known to bind many proteins, especially to angiomin and endothelial cell surface ATP synthase but also integrins, annexin II, C-met receptor, NG2 proteoglycan, tissue-type plasminogen activator, chondroitin sulfate proteoglycans, and CD26. It seems to involve inhibition of endothelial cell migration, proliferation and induction of apoptosis, but its mechanism of action is still unclear. Angiostatin is currently undergoing clinical trials for its use in anticancer therapy. Recombinant angiostatin is expressed in E. coli.
Form	Lyophilized from a 0.2µm filtered concentrated solution in 20 mM NaAc, pH 5.5, 4 % mannitol.
Bio-activity	Fully biologically active when compared to standard. The specific activity determined

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	by an assay on anti-proliferation and anti-migration using endothelial cells in vitro and anti-angiogenesis in vivo is 5.5×10^5 IU/mg.
Molecular Mass	Approximately 29.7 KDa, a single non-glycosylated polypeptide chain containing 259 amino acids.
AA Sequence	VYLSECKTGNGKNYRGTMSTKNGITCQKWSSTSPHRPRFSPATHPSEGLEENYC RNPNDNPQGPWCYTDDPEKRYDYCDILECEEECMHCSGENYDYGKISKTMGLECQ AWDSQSPHAHGYIPSKFPNKNLKKNYCRNPDRELRPWCFTTDPNKRWELCDIPRC TTPPPSSGPTYQCLKGTGENYRGNVAVTVSGHTCQHWSAQTPHTHNRTPENFPCK NLDENYCRNPDGKRAPWCHTTNSQVRWEYCKIPSCDSSP
Endotoxin	Less than 1 EU/μg of rHuAngiostatin as determined by LAL method.
Purity	>95% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name **PLG**

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Official Symbol	PLG
Synonyms	PLG; plasminogen; plasmin; DKFZp779M0222;
Gene ID	5340
mRNA Refseq	NM_001168338
Protein Refseq	NP_001161810
MIM	173350
UniProt ID	P00747

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