

Recombinant Human Angiostatin

#R00088

Size: 10 µg/100 µg/500 µg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

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*.

AA Sequence

VYLSECKTGNGKNYRGTMSTKNGITCQKWSSTSP
HRPRFSPATHPSEGLEENYCRNPDNDPQGPWCYTT
DPEKRYDYCDILECEEECMHCSENYDGKISKTMMSG
LECAWDSQSPHAHGYIPSKFPNKNLKNYCRNPDR
ELRPWCFTTDPNKRWELCDIPRCTTPPPSSGPTYQC
LKGTEENYRGNVAVTVSGHTCQHWSAQTPHTHNRT
PENFPCKNLDENYCRNPDGKRAPWCHTTNSQVRWE
YCKIPSCDSSP

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 °C. Further dilutions should be made in appropriate buffered

solutions.

Product Specification	
Accession	P00747
GeneID	5340
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 29.7 KDa, a single non-glycosylated polypeptide chain containing 259 amino acids.
Purity	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The specific activity determined 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.

Physical	Sterile Filtered White Lyophilized
Appearance	(freeze-dried) powder.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in 20 mM NaAc, pH 5.5, 4 % mannitol.
Endotoxin	Less than 1 EU/μg of rHuAngiostatin as determined by LAL method.