HB220301

Recombinant Human Angiostatin (Human Angiostatin)

Product Information

Product Name	Cat#	Size
Recombinant Human Angiostatin (Human Angiostatin)	92255ES10	10 μg
	92255ES60	100 μg
	92255ES78	500 μg

Product Description

Angiostatin is an anti-angiogenic 38-45 kDa proteolytic fragment of Plasminogen, a 92-100 kDa glycosylated blood zymogen that serves as the precursor for Plasmin. Plasminogen is produced primarily in the liver, but also in other tissues. Angiostatin circulates in the plasma, binds endothelial cells and myeloid cells, is present in platelet granules, and is excreted in the urine. Human Plasminogen contains an N-terminal activation peptide between amino acids (aa) 1-98, five characteristically folded kringle domains (aa 103-561), and a peptidase S1 domain (aa 581-808). Cleavage of the activation peptide produces mature Plasminogen, while further cleavage between Arg580 and Val581 by tPA (tissue plasminogen activator) produces the disulfide-linked two-subunit enzyme plasmin that dissolves fibrin clots. Angiostatin was first identified as consisting of kringles 1-4, a form called K1-4. Human Angiostatin (K1-4, aa 99-459) shares 79-80% aa sequence identity with mouse, rat, canine, feline, porcine and bovine K1-4. Other anti-angiogenic forms include kringles 1-3 (K1-3), or 1-4 plus most of kringle 5 (K4.5). K4.5, which is reported to be the most active form, occurs in vivo by autoproteolysis of mature Plasminogen in the presence of either a sulfhydryl donor or cell surface actin, while matrix metalloproteins such as MMP3, 7, 9 and 19 can create multiple forms.

Product Properties

Synonyms	Angiostatin
Accession	P00747
GeneID	5340
Source	E.coli-derived HumanAngiostatin protein,Tyr98-Pro356.
Molecular Weight	Approximately 29.7 KDa
AA Sequence	VYLSECKTGN GKNYRGTMSK TKNGITCQKW SSTSPHRPRF SPATHPSEGL EENYCRNPDN DPQGPWCYTT DPEKRYDYCD ILECEEECMH CSGENYDGKI SKTMSGLECQ AWDSQSPHAH GYIPSKFPNK NLKKNYCRNP DRELRPWCFT TDPNKRWELC DIPRCTTPPP SSGPTYQCLK GTGENYRGNV AVTVSGHTCQ HWSAQTPHTH NRTPENFPCK NLDENYCRNP DGKRAPWCHT TNSQVRWEYC KIPSCDSSP
Tag	None
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
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.
Endotoxin	< 1 EU/μg of protein as determined by LAL method.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in 20 mM NaAc, pH 5.5, 4 % mannitol.

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.

Shipping and Storage

The products are shipped with ice pack and can be stored at -20℃ to -80℃ for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

Cautions

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only.