



Anti-Human Endostatin

20150223ML



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Product Specifications

Species reactivity	Human
Clone/Ab feature	Rabbit IgG
Cross reactivity	Human
Host	Rabbit
Clonality	Polyclonal Antibody
Purification	Antigen-affinity purified
Immunogen	Recombinant Human Endostatin
Formulation	lyophilized from PBS
Reconstitution buffer	water

Cat.-no.:	102-P226
Size:	100 µg
Lot. No.:	According to product label

Preparation: Produced from sera of rabbits pre-immunized with highly pure (>98%) recombinant Endostatin. Anti-Human Endostatin specific antibody was purified by affinity chromatography employing immobilized Endostatin matrix.

Target Background

Synonyms (Target):	COL18A1; KS; KNO; KNO1
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Endostatin, an endogenous non-glycosylated inhibitor of endothelial cell proliferation and angiogenesis, is an approximately 181 amino acid (aa), 20 kDa proteolytic fragment of the C-terminal non collagenous domain of type XVIII collagen. It is produced and/or trimmed by metalloproteinases such as MMP2 and MMP9, and cathepsins S, B and L. The Nterminal ~27 aa of Endostatin appear to contain the majority of its activity. This region contains three zinc binding sites that are thought to be critical for its anti-endothelial and anti-tumor effects, as well as multiple cleavage sites that, when used, can modify its activity. Human Endostatin shares 84-87% aa sequence identity with mouse, rat, bovine and equine Endostatin. Endostatin inhibits endothelial cell growth by inducing cell cycle arrest in G1 phase and initiating apoptosis. It is also thought to downregulate angiogenesis by blocking VEGF-induced endothelial cell migration. It alters the effect of FGF basic on adhesion and cell motility. Endostatin can interact with Transglutaminase 2, heparin, and integrins $\alpha 5\beta 1$ and $\alpha v \beta 3$, all of which may be secreted by, or expressed on, endothelial cells, and can influence adhesion or migration.

Database References Target

Protein RefSeq:	NP_085059
Uniprot ID:	P39060
mRNA RefSeq:	NM_030582

Reconstitution: Reconstitute the antibody in sterile water to a concentration of 0.1 - 1.0 mg/ml.

Stability: The lyophilized antibody is stable for at least 2 years from date of receipt at -20°C. The reconstituted antibody is stable for at least two weeks at 2-8°C. Frozen aliquots are stable for at least 6 months when stored at -20°C.



AVOID REPEATED FREEZE AND THAW CYCLES!

Applications

Western Blot: To detect Endostatin by Western Blot analysis this antibody can be used at a concentration of 0.1 - 0.2 µg/ml. Used in conjunction with compatible secondary reagents the detection limit for recombinant Endostatin is 1.5 - 3.0 ng/lane, under either reducing or non-reducing conditions.

ELISA: To detect Endostatin by sandwich ELISA (using 100 µl/well antibody solution) a concentration of 0.5 - 2.0 µg/ml of this antibody is required. This antigen affinity purified antibody, in conjunction with an appropriate secondary conjugated antibody, allows the detection of at least 0.2 - 0.4 ng/well of recombinant Endostatin.

NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!