

Product Specification Sheet

Monoclonal Endostatin Antibody

Cat. # ENST16-M

Rat Monoclonal Anti-Mouse Endostatin Protein IgG

SIZE: 100 ug

Embryonic vascular system undergoes a series of complex, highly regulated series of events involving differentiation, migration and association of primitive endothelial cells. This process is termed vasculogenesis. A further remodeling of the primitive vascular system forms the mature cardiovascular system. This process is known as angiogenesis (sprouting of new capillary vessels from pre-existing vasculature). Angiogenesis accounts for the formation of vasculature into previously avascular organs such as brain and kidney. Angiogenic activity in the adult is required during the normal tissue repair, and for the remodeling of the female reproductive organs (ovulation and placental development). Certain pathological conditions, such as tumor growth and diabetic retinopathy, also require angiogenesis.

Recent studies have identified several proteolytic fragments or cryptic domains of proteins that act as inhibitors of angiogenesis. These include fragments of plasminogen such as **Angiostatin** protein (kringles 1-4) and kringles 1-5, C-terminal proteolytic fragment of Collagen XVIII (**Endostatin** protein), the NC10 domain of collagen 15 (**Restin**), the C-terminal hemopexin-like domain of MMP-2 (**PEX**), the N-terminal fragment of prolactin, and the N-terminally truncated platelet factor. The 20 kDa fragment of Collagen XVIII known as **Endostatin** protein inhibits tumor progression and induction of endothelial cell apoptosis. Administration of Endostatin protein to mice bearing certain tumors caused tumor regression without the development of drug resistance. Endostatin protein also inhibited systemic angiogenesis, primary tumor growth, and the development of primary metastatic lesions. It also reduced the levels of antiapoptotic proteins Bcl-2 and Bcl-xL and an increase in apoptosis of endothelial cells. *in vitro*.

Source of Antigen

Antigen	Purified recombinant (sf21) mouse endostatin protein
Ab Host/type	Balb/c mouse . Splenocytes were fused with Sp2/0 myeloma cells. Resulting clone (designated ENST16, isotype IgG2b), selected for reactivity with ENST, was expanded into mice as ascites . Antibody has been purified by Protein A/G column chromatography.
2-Ab	Goat Anti-Rat IgG-HRP conjugate Cat # 50320 (AP, biotin, FITC conjugates also available)
-ve control IgG	Cat # 20005-1, Rat (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG

100 ug/100ul solution lyophilized powder
Supplied in **Buffer:** PBS, pH 7.4

Reconstitute powder in PBS at 1 mg/ml

Storage

Short-term: unopened, undiluted liquid vials at -200C and powder at 4oC or -20oC..

Long-term: at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20oC or below.

Shipping: 4oC for solutions and room temp for powder.

Suggested Uses

ELISA: use a t 0.5-2 ug/ml using 100-200 ng coated protein/well.

Western: 1-3 ug/ml. This antibody detects 10-50 ng recombinant protein.

Specificity & Cross-reactivity

ENST16-M reacts with mouse endostatin in reducing and non-reducing conditions. Other species no tested. We recommend the use of mouse endostatin protein WB control (Cat#ENS12-C).

General References:

Peterson Te et al (1990) JBC 265, 6104-6111; Forsgren m et al (1987) FEBS Lett. 213, 254-260; Malinowski DP et al (1984) Biochemistry 23, 4243-4250; O'Reilly MS et al (1994) Cell 79, 315-328; Sim BK et al (1997) Cancer Res. 57, 1329-1334; Wu Z et al (1997) BBRC 236, 651;

2. Citations for ADI Antibodies (see updates at the web site)

Lensen JFM, 2005, J. Am. Soc. Nephrol. 16: 1279 – 1288, IHC
Ohab JJ 2006, J. Neurosci., Dec 2006; 26: 13007 - 13016.

*This product is for in vitro research use only.

Related material available from ADI

Antibodies to Ang-1, Ang-2, Angiostatin, Endostatin

Recombinant Mouse and Human VEGFs, Anti-Tie-1 and Tie-2, Anti-flk-1, Flt-1, and Flt-4 (VEGFRs 1-3)

Western Blot recycling kit (Use the same blot to probe with multiple antibodies Ang-1 and Ang-2, etc.) **recycle blot at room temp in 5-10 min;** No mercaptoethanol or heating required).

ENST16-M

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Alpha Diagnostic Intl Inc., 6203 Woodlake Center Dr, S an Antonio, T X 7 8 24 4 , U S A;

India Contact:

Life Technologies (India) Pvt. Ltd.

306, Aggarwal City Mall, Opposite M2K Pitampura, Delhi – 110034 (INDIA). Ph: +91-11-42208000, 42208111, 42208222, Mobile: +91-9810521400 Fax: +91-11-42208444 Email: customerservice@lifetechindia.com Website: www.lifetechindia.com