

# Anti-Antithrombin III / ATIII / SERPINC1 Antibody

## ER1803-06



<b>Product Type:</b>	Rabbit polyclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB, IF-Cell, IHC-P, FC
<b>Molecular Wt:</b>	53 kDa

**Description:** The protein encoded by this gene, antithrombin III, is a plasma protease inhibitor and a member of the serpin superfamily. This protein inhibits thrombin as well as other activated serine proteases of the coagulation system, and it regulates the blood coagulation cascade. The protein includes two functional domains: the heparin binding-domain at the N-terminus of the mature protein, and the reactive site domain at the C-terminus. The inhibitory activity is enhanced by the presence of heparin. Numerous mutations have been identified for this gene, many of which are known to cause antithrombin-III deficiency which constitutes a strong risk factor for thrombosis. A reduction in the serum level of this protein is associated with severe cases of Coronavirus Disease 19 (COVID-19).

**Immunogen:** Recombinant protein within Human SERPINC1 aa 150-370 / 464.

**Positive control:** HepG2, mouse smooth muscle tissue, mouse lung tissue, H22, rat kidney tissue, human liver tissue, human small intestine tissue.

**Subcellular location:** Secreted.

**Database links:** SwissProt: P01008 Human | P32261 Mouse | Q5M7T5 Rat

**Recommended Dilutions:**

<b>WB</b>	1:500-1;1,000
<b>IF-Cell</b>	1:50-1:200
<b>IHC-P</b>	1:50-1:200
<b>FC</b>	1:50-1:100

**Storage Buffer:** 1\*PBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

**Purity:** Immunogen affinity purified.

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Orders:0086-571-88062880

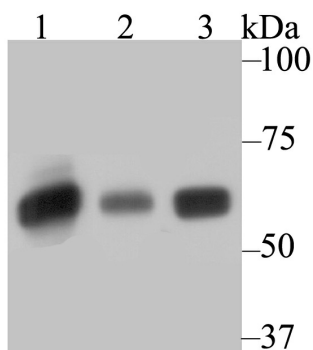
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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

## Images



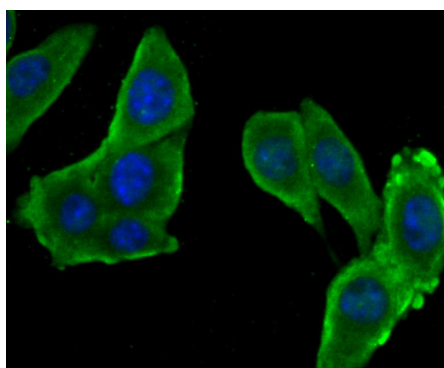
**Fig1:** Western blot analysis of SERPINC1 on different lysates using anti-SERPINC1 antibody at 1/500 dilution.

**Positive control:**

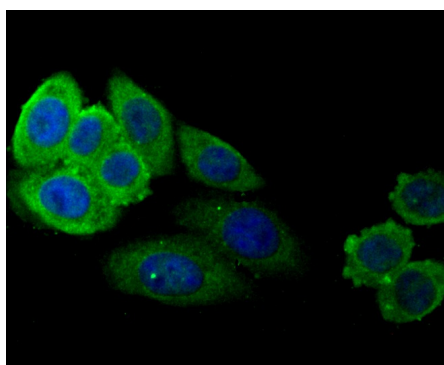
Lane 1: HepG2

Lane 2: Mouse smooth muscle

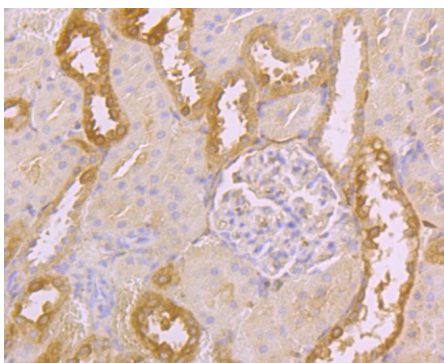
Lane 3: Mouse lung



**Fig2:** ICC staining SERPINC1 in H22 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



**Fig3:** ICC staining SERPINC1 in HepG2 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



**Fig4:** Immunohistochemical analysis of paraffin-embedded rat kidney tissue using anti-SERPINC1 antibody. Counter stained with hematoxylin.

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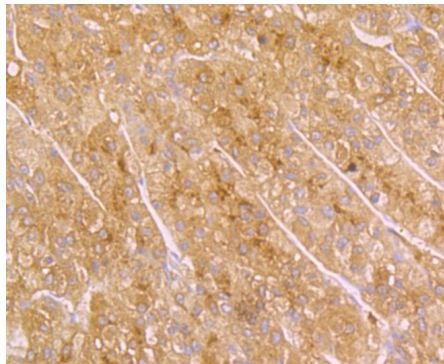
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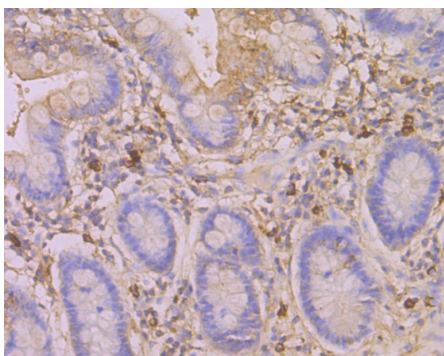
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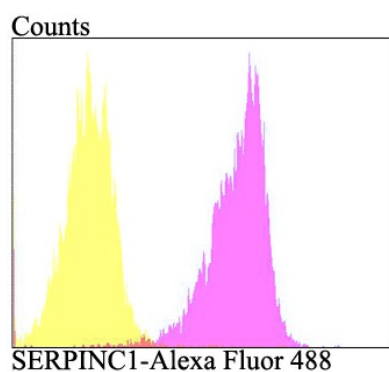
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**Fig5:** Immunohistochemical analysis of paraffin-embedded human liver tissue using anti-SERPINC1 antibody. Counter stained with hematoxylin.



**Fig6:** Immunohistochemical analysis of paraffin-embedded human small intestine tissue using anti-SERPINC1 antibody. Counter stained with hematoxylin.



**Fig7:** Flow cytometric analysis of HepG2 cells with SERPINC1 antibody at 1/100 dilution (purple) compared with an unlabelled control (cells without incubation with primary antibody; yellow). Alexa Fluor 488-conjugated goat anti-rabbit IgG was used as the secondary antibody.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

### Background References

1. Sungurlu S et al. Role of Antithrombin III and Tissue Factor Pathway in the Pathogenesis of Sepsis. Crit Care Clin. 2020 Apr
2. Farrell DH et al. Antithrombin III Levels and Outcomes Among Patients With Trauma. JAMA Netw Open. 2024 Aug

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