



Anti-human Serpin A4/Kallistatin Antibody

ORDERING INFORMATION

Catalog Number: AF1669

Lot Number: KOD01

Size: 100 µg

Formulation: 0.2 µm filtered solution in PBS with 5% trehalose

Storage: -20° C

Reconstitution: sterile PBS

Specificity: human Serpin A4

Immunogen: NS0-derived rhSerpin A4 (aa 20 - 427)

Ig Type: goat IgG

Applications: Direct ELISA
Western blot
Immunoprecipitation
Neutralization
Immunohistochemistry

Preparation

Produced in goats immunized with purified, NS0-derived, recombinant human Serpin A4 (rhSerpin A4). Human Serpin A4 specific IgG was purified by human Serpin A4 affinity chromatography.

Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

Reconstitution

Reconstitute with sterile PBS. If 0.5 mL of PBS is used, the antibody concentration will be 0.2 mg/mL.

Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C in a **manual defrost freezer** for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

Specificity

This antibody has been selected for its ability to recognize human Serpin A4 in direct ELISAs and western blots. In these formats, this antibody shows less than 5% cross-reactivity with rhSerpin A1, rhSerpin A3, rhSerpin A5, rhSerpin C1, rhSerpin D1 and rhSerpin F2.

Applications

Direct ELISA - This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect human Serpin A4. The detection limit for rhSerpin A4 is approximately 2 ng/well.

Western blot - This antibody can be used at 0.1 - 0.2 µg/mL with the appropriate secondary reagents to detect human Serpin A4. The detection limit for rhSerpin A4 is approximately 2 ng/lane under non-reducing and reducing conditions.

Immunoprecipitation - This antibody has been used at 25 µg/mL to immunoprecipitate rhSerpin A4 from conditioned media of cell culture. The recovered rhSerpin A4 can be detected by western blot analysis using a monoclonal antibody (R&D Systems, Catalog # MAB1669).

Neutralization - This antibody has been used to neutralize the inhibitory activity of rhSerpin A4 (R&D Systems, Catalog # 1669-PI) against chymotrypsin. The antibody was preincubated with the inhibitor at different molar ratios at room temperature for 30 minutes. The resulting mixtures were then incubated with the enzyme at room temperature for 15 minutes. The enzyme was assayed with a peptide substrate (R&D Systems, Catalog # ES002). 50% of the proteolytic activity was restored by the antibody at 10.8 µg/mL (IC₅₀) under conditions in which 3.8 µg/mL of the inhibitor, 0.1 µg/mL of the enzyme, and 10 µM of the substrate were present. Considering the molecular masses of the inhibitor (48 kDa) and the antibody (150 kDa), IC₅₀ was achieved at approximately 1:1 molar ratio of the antibody to the inhibitor.

Immunohistochemistry - This antibody will detect Serpin A4 in cells and tissues. The working dilution is 2 - 15 µg/mL. For chromogenic detection of labeling, use R&D Systems' Cell and Tissue Staining Kits (CTS Series).

Optimal dilutions should be determined by each laboratory for each application.

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R&D Systems, Inc.
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