

Rabbit Monoclonal Antibody to Human Serpin Peptidase Inhibitor, Clade A, Member 3

Cat. No. CAB11598RH Lot. No. (See product label)

SPECIFICATION

Product Overview	Rabbit Monoclonal Antibody to Human Serpin Peptidase Inhibitor, Clade A, Member 3
Species	Human
Source	Rabbit
Antigen Description	Human SerpinA3, also known as Alpha 1-antichymotrypsin (AACT), is a plasma alpha globulin glycoprotein, and is a member of serpin superfamily of the serine protease inhibitors consisting of at least 35 members. SerpinA3 has been demonstrated to inhibit the activity of certain serine proteases, such as cathepsin G found in neutrophils, and chymases present in mast cells, by inducing a major conformational rearrangement, and thus protects some tissues from damage caused by proteolytic enzymes. This enzyme is produced primarily in the liver, and is identified as an acute-phase inflammatory protein. SerpinA3 deficiency has been associated with liver disease, and mutations of this gene have been observed in patients with Parkinson disease and chronic obstructive pulmonary disease. In addition, ACT gene polymorphism has been implicated with Alzheimer's disease (AD), cerebral amyloid angiopathy (CAA), as well as stroke, since SerpinA3 is a major constituent of the plaques in AD and an inhibitor of amyloid beta peptide degradation.
Specificity	Human SerpinA3. No cross-reactivity in ELISA with Human SerpinA7; Human SerpinA5; Human SerpinC1; Human SerpinD1; Human SerpinF2; Human cell lysate (293 cell line)

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Immunogen	Recombinant Human SerpinA3 Protein
Isotype	Rabbit IgG
Clone	A007
Applications	Western blot; ELISA
Dilution	Western blot: This antibody can be used at 1-2 µg/mL with the appropriate secondary reagents to detect Human SERPINA3 in WB. Using a DAB detection system, the detection limit for Human SERPINA3 is approximately 10 ng/lane under non-reducing conditions and reducing conditions. Direct ELISA: This antibody can be used at 0.1-0.2 µg/mL with the appropriate secondary reagents to detect Human SERPINA3. The detection limit for Human SERPINA3 is approximately 0.0195 ng/well.
Preparation	This antibody was obtained from a rabbit immunized with purified, human cell-derived, recombinant Human SerpinA3
Format	0.2 µm filtered solution in PBS with 5% trehalose
Storage	This antibody can be stored at 2-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 to -70 °C. Preservative-Free. Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name SERPINA3 serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 3 [Homo sapiens]

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Official Symbol	SERPINA3
Synonyms	SERPINA3; serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 3; AACT, alpha 1 antichymotrypsin, serine (or cysteine) proteinase inhibitor, clade A (alpha 1 antiproteinase, antitrypsin), member 3; alpha-1-antichymotrypsin; ACT; alpha 1 antichymotrypsin; serpin A3; growth-inhibiting protein 24; growth-inhibiting protein 25; cell growth-inhibiting gene 24/25 protein; serine (or cysteine) proteinase inhibitor, clade A, member 3; AACT; GIG24; GIG25; MGC88254;
Gene ID	12
mRNA Refseq	NM_001085
Protein Refseq	NP_001076
MIM	107280
UniProt ID	P01011
Chromosome Location	14q32.1
Pathway	Selenium Pathway, organism-specific biosystem;
Function	DNA binding; peptidase inhibitor activity; protein binding; serine-type endopeptidase inhibitor activity; serine-type endopeptidase inhibitor activity;