

Serpin A10 (SERPINA10) Active Protein | SERPINA10 active protein

Active Serpin A10 (SERPINA10)

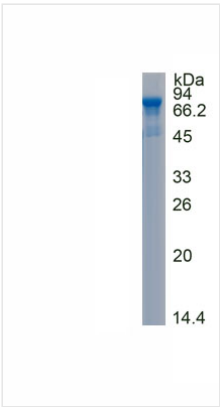
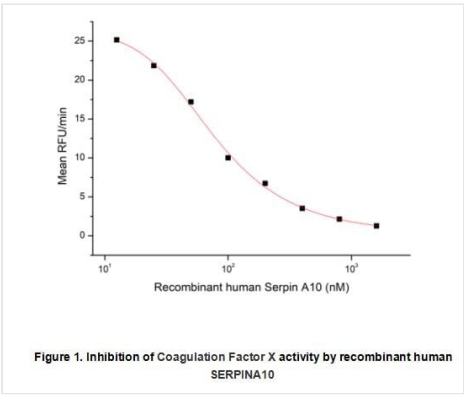
CATALOG # AAA161873	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Serpin A10 (SERPINA10); Active Serpin A10 (SERPINA10); Serpin A10; PZI; ZPI; Serine(Cysteine)Proteinase Inhibitor; Clade A(Alpha-1 Antiproteinase; Antitrypsin)Member 10; Protein Z-Related Protease Inhibitor; Protein Z Dependent Protease Inhibitor4; SERPINA10 active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 80% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Pro24~Leu4 44
Applicable Applications for SERPINA10 active protein	Activity Assay, Cell Culture
Species	Human
Expression System	Prokaryotic expression
Tag	N-terminal His and GST Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	8.1
Research Area	Enzyme & Kinase, Metabolic pathway, Hematology
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months



Bioactivity

Protein Z-dependent Protease Inhibitor (ZPI), also known as SerpinA10 (SERine Proteinase INhibitor-clade A10) is a monomeric, secreted member of the A (or extracellular) clade within the serpin superfamily of protease inhibitors. In general, members of this superfamily regulate multiple proteolytic cascades, and are particularly effective due to the fact that their inhibitory activities can be fine-tuned through the participation of discrete, non-serpin co-factors. Serpins are unusual in that they are one-time use, non-recyclable proteins whose native state is thermodynamically unstable. The activity of recombinant human SERPINA10 was measured by its ability to inhibit Coagulation Factor X cleavage of a fluorogenic peptide substrate Mca-RPKPVE-Nval-WRK(Dnp)-NH2 in the assay buffer 50 mM Tris, 10 mM CaCl2, 150 mM NaCl, 0.05% (w/v) Brij-35, pH 7.5. Coagulation Factor X was diluted to 5 ug/ml in the assay buffer and 25 ul different concentrations of recombinant human SERPINA10 (MW: 78.26 KD) was incubated with 25 ul diluted Coagulation Factor X at 37 degree C for 30 minutes. Loading 50 uL 20 uM substrate to start the reaction including a substrate blank containing 50 uL of assay buffer and 50 uL of 20 uM substrate. Then read at excitation and emission wavelengths of 320 nm and 405 nm, respectively, in kinetic mode for 5 minutes. The result was shown in Figure 1 and it was obvious that recombinant human SERPINA10 significantly decreased Coagulation Factor X activity. The inhibition IC50 was

SDS-PAGE

Figure. SDS-PAGE

ADDITIONAL INFORMATION

Product Categories/Family for SERPINA10 active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	154759291
NCBI GeneID	51156
NCBI Accession #	NP_001094077.1
NCBI GenBank Nucleotide #	NM_001100607.2
UniProt Accession #	Q9UK55; Q6UWX9; Q86U20; A5Z2A5
Molecular Weight	50,707 Da
NCBI Official Full Name	protein Z-dependent protease inhibitor
NCBI Official Synonym Full Names	serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 10
NCBI Official Symbol	SERPINA10
NCBI Official Synonym Symbols	PZI; ZPI
NCBI Protein Information	protein Z-dependent protease inhibitor; serpin A10; PZ-dependent protease inhibitor; serine (or cysteine) proteinase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 10
UniProt Protein Name	Protein Z-dependent protease inhibitor
UniProt Gene Name	SERPINA10

UniProt Synonym Gene Names	ZPI; PZ-dependent protease inhibitor; PZI
UniProt Entry Name	ZPI_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/e-coli-active-protein/serpin-a10-serpina10/161873>