10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SERPINB1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16141c

Product Information

Application	WB, E
Primary Accession	P30740
Other Accession	NP_109591.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB35355
Calculated MW	42742
Antigen Region	168-196

Additional Information

Gene ID	1992
Other Names	Leukocyte elastase inhibitor, LEI, Monocyte/neutrophil elastase inhibitor, EI, M/NEI, Peptidase inhibitor 2, PI-2, Serpin B1, SERPINB1, ELANH2, MNEI, PI2
Target/Specificity	This SERPINB1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 168-196 amino acids from the Central region of human SERPINB1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SERPINB1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SERPINB1
Synonyms	ELANH2, MNEI, PI2
Function	Neutrophil serine protease inhibitor that plays an essential role in the

	regulation of the innate immune response, inflammation and cellular homeostasis (PubMed:30692621). Acts primarily to protect the cell from proteases released in the cytoplasm during stress or infection. These proteases are important in killing microbes but when released from granules, these potent enzymes also destroy host proteins and contribute to mortality. Regulates the activity of the neutrophil proteases elastase, cathepsin G, proteinase-3, chymase, chymotrypsin, and kallikrein-3 (PubMed:11747453, PubMed:30692621). Also acts as a potent intracellular inhibitor of GZMH by directly blocking its proteolytic activity (PubMed:23269243). During inflammation, limits the activity of inflammatory caspases CASP1, CASP4 and CASP5 by suppressing their caspase-recruitment domain (CARD) oligomerization and enzymatic activation (PubMed:30692621). When secreted, promotes the proliferation of beta-cells via its protease inhibitory function (PubMed:26701651).
Cellular Location	Secreted. Cytoplasm. Cytolytic granule. Early endosome
Tissue Location	In human bone marrow, present in all CD45+ populations. Expression levels are highest in the neutrophil lineage, intermediate in monocytic, and lowest in lymphocytic lineage. Within the neutrophil lineage, expression is highest in promyelocytes

Background

SERPINB1 regulates the activity of the neutrophil proteases elastase, cathepsin G, proteinase-3, chymase, chymotrypsin, and kallikrein-3.

References

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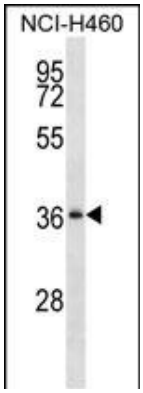
Ahmed, M., et al. J. Proteome Res. 4(3):931-940(2005)
Mungall, A.J., et al. Nature 425(6960):805-811(2003)
Gevaert, K., et al. Nat. Biotechnol. 21(5):566-569(2003)

Images



SERPINB1 Antibody (Center) (Cat. #AP16141c) western blot analysis in NCI-H460 cell line lysates (35ug/lane).This demonstrates the SERPINB1 antibody detected the SERPINB1 protein (arrow).