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SERPINB1 Antibody (internal region)

Peptide-affinity purified goat antibody
Catalog # AF4089a

Specification

SERPINB1 Antibody (internal region) - Product Information

Application	**WB**
Primary Accession	P30740
Other Accession	NP_109591.1, 1992
Reactivity	**Human**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5 mg/ml**
Isotype	**IgG**
Calculated MW	**42742**

SERPINB1 Antibody (internal region) - 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

Format
0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
SERPINB1 Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

SERPINB1 Antibody (internal region) - 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). Acts also 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

SERPINB1 Antibody (internal region) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SERPINB1 Antibody (internal region) - Images



AF4089a (1 µg/ml) staining of A549 lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

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SerpinB1 in cystic fibrosis airway fluids: quantity, molecular form and mechanism of elastase inhibition. Cooley J, Sontag MK, Accurso FJ, Remold-O'Donnell E. The European respiratory journal : official journal of the European Society for Clinical Respiratory Physiology 2011 May 37 (5): 1083-90. PMID: 20817705