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KD-Validated Anti-SERPINB1 Mouse Monoclonal Antibody

Mouse monoclonal antibody
Catalog # AGI1944

Specification

KD-Validated Anti-SERPINB1 Mouse Monoclonal Antibody - Product Information

Application	**WB, FC**
Primary Accession	P30740
Reactivity	**Human**
Clonality	**Monoclonal**
Isotype	**Mouse IgG2b**
Calculated MW	**Predicted, 43 kDa, observed, 43 kDa KDa**
Gene Name	**SERPINB1**
Aliases	**SERPINB1; Serpin Family B Member 1; MNEI; PI2; LEI; EI; Leukocyte Elastase Inhibitor; ELANH2; Serine (Or Cysteine) Proteinase Inhibitor, Clade B (Ovalbumin), Member 1; Serpin Peptidase Inhibitor, Clade B (Ovalbumin), Member 1; Monocyte/Neutrophil Elastase Inhibitor; Peptidase Inhibitor; M/NEI; PI-2; Protease Inhibitor 2 (Anti-Elastase), Monocyte/Neutrophil Derived; Epididymis Secretory Protein Li 27; Epididymis Luminal Protein 57; Anti-Elastase; Serpin B1; HEL-S-27; HEL57**
Immunogen	**Recombinant protein of human SERPINB1**

KD-Validated Anti-SERPINB1 Mouse Monoclonal Antibody - 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

KD-Validated Anti-SERPINB1 Mouse Monoclonal Antibody - 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

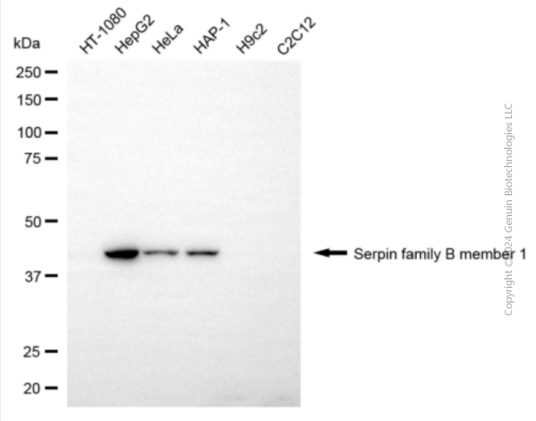
Tissue Location
In human bone marrow, present in all CD45+ populations. Expression levels are highest in the neutrophil lineage, intermediate in monocytic, and lowest in lymphocytic lineage. Within the neutrophil lineage, expression is highest in promyelocytes

KD-Validated Anti-SERPINB1 Mouse Monoclonal Antibody - 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

KD-Validated Anti-SERPINB1 Mouse Monoclonal Antibody - Images



Western blotting analysis using anti-serpin family B member 1 antibody (Cat#AGI1944). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-serpin family B member 1 antibody (Cat#AGI1944, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.

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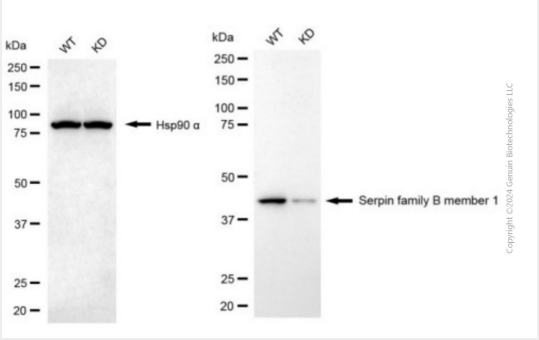
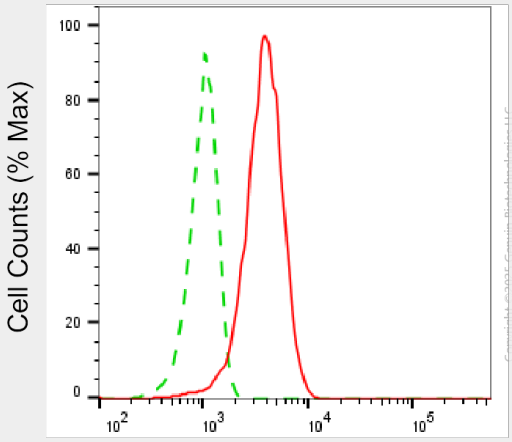


Western blotting analysis using anti-serpin family B member 1 antibody (Cat#AGI1944). Serpin family B member 1 expression in wild type (WT) and serpin family B member 1 (SERPINB1) knockdown (KD) HSHC cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-serpin family B member 1 antibody (Cat#AGI1944, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.



Flow cytometric analysis of Serpin family B member 1 expression in HepG2 cells using anti-Serpin family B member 1 antibody (Cat#AGI1944, 1:2,000). Green, isotype control; red, Serpin family B member 1.