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KD-Validated Anti-SERPINB1 Mouse Monoclonal Antibody

Mouse monoclonal antibody
Catalog # AGI1945

Product Information

Application	WB, FC, ICC
Primary Accession	P30740
Reactivity	Human
Clonality	Monoclonal
Isotype	Mouse IgG1
Clone Names	24GB6545
Calculated MW	42742
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

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

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