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Neutrophil Elastase Antibody

Rabbit mAb
Catalog # AP91077

Product Information

Application	WB, IHC, IF, FC, ICC, IHF
Primary Accession	P08246
Reactivity	Human, Mouse
Clonality	Monoclonal
Other Names	ELA2; ELANE; Elastase 2; Medullasin; Neutrophil elastase; PMN E; SCN1;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	28518

Additional Information

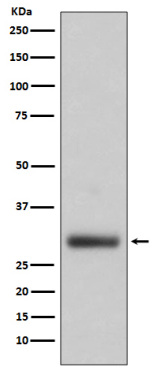
Dilution	WB 1:500~1:2000 IHC 1:100~1:500 ICC/IF 1:50~1:200 FC 1:30
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Neutrophil Elastase
Description	Modifies the functions of natural killer cells, monocytes and granulocytes. Inhibits C5a-dependent neutrophil enzyme release and chemotaxis.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

Name	ELANE
Synonyms	ELA2
Function	Serine protease that modifies the functions of natural killer cells, monocytes and granulocytes (PubMed:15140022). Shows microbicidal activity in neutrophils by mediating cleavage and degradation of bacterial proteins (PubMed:10947984, PubMed:25161283). Capable of killing E.coli but not S.aureus in vitro; digests outer membrane protein A (ompA) in E.coli and K.pneumoniae (PubMed:10947984). Involved for the formation of neutrophil extracellular traps (NETs): translocates into the nucleus downstream of MPO and mediates degadation of histone H4, thereby participating to chromatin decondensation (PubMed:20974816, PubMed:25066128, PubMed:28574339). NETs are mainly composed of DNA fibers and are released by neutrophils to trap pathogens during inflammation (PubMed:20974816, PubMed:25066128, PubMed:28574339). Inhibits C5a-dependent neutrophil enzyme release and chemotaxis (PubMed:15140022). Promotes cleavage of GSDMB, thereby inhibiting pyroptosis (PubMed:36899106). Promotes blood coagulation (PubMed:20676107). Through the activation of the platelet fibrinogen

	receptor integrin alpha-IIb/beta-3, potentiates platelet aggregation induced by a threshold concentration of cathepsin G (CTSG) (PubMed:25211214, PubMed:9111081). Cleaves and thus inactivates tissue factor pathway inhibitor (TFPI) (PubMed:20676107, PubMed:25211214).
Cellular Location	Cytoplasmic vesicle, phagosome. Lysosome Cytolytic granule. Nucleus. Note=Localizes to azurophil granules, a type of primary lysosome found in neutrophils and monocytes that contains antimicrobial proteins (PubMed:20974816, PubMed:25066128) Translocates from azurophil granules to the nucleus downstream of MPO during formation of neutrophil extracellular traps (NETs), and is present in released NETs (PubMed:20974816, PubMed:25066128, PubMed:32434865). Localized in phagolysosomes following ingestion of E.coli by neutrophils (PubMed:10947984).
Tissue Location	Bone marrow cells. Neutrophil (PubMed:10947984).

Images



Western blot analysis of Neutrophil Elastase expression in HL60 cell lysate.

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