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ELANE

Purified Mouse Monoclonal Antibody
Catalog # AO2644a

Product Information

Application	WB, IHC, ICC, E
Primary Accession	P08246
Reactivity	Human, Rat
Host	Mouse
Clonality	Monoclonal
Clone Names	6B6G6
Isotype	Mouse IgG1
Calculated MW	28518
Immunogen	Purified recombinant fragment of human ELANE (AA: 140-267) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	1991
Other Names	GE; NE; HLE; HNE; ELA2; SCN1; PMN-E
Dilution	WB~~ 1/500 - 1/2000 IHC~~1:100~500 ICC~~N/A E~~ 1/10000
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	ELANE is for research use only and not for use in diagnostic or therapeutic procedures.

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).

References

1.Pediatr Blood Cancer. 2015 Dec;62(12):2229-31. 2.Lung. 2014 Aug;192(4):595-9.

Images

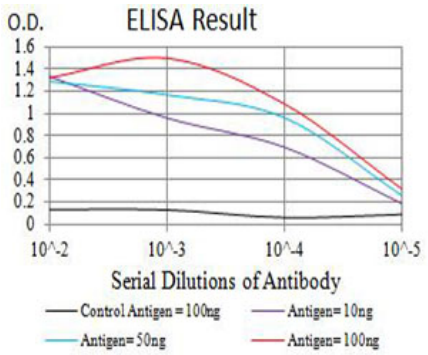


Figure 1:Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

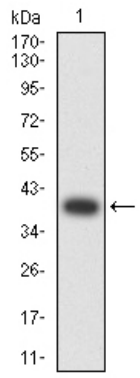
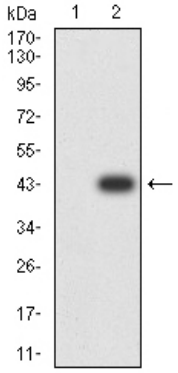


Figure 2:Western blot analysis using ELANE mAb against human ELANE (AA: 140-267) recombinant protein. (Expected MW is 39 kDa)

Figure 3:Western blot analysis using ELANE mAb against HEK293 (1) and ELANE (AA: 140-267)-hIgGFc transfected



HEK293 (2) cell lysate.

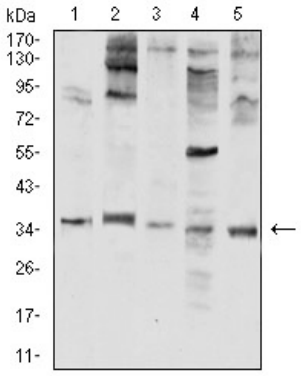


Figure 4:Western blot analysis using ELANE mouse mAb against HL-60 (1), THP-1 (2), MOLT4 (3), C6 (4), and K562 (5) cell lysate.

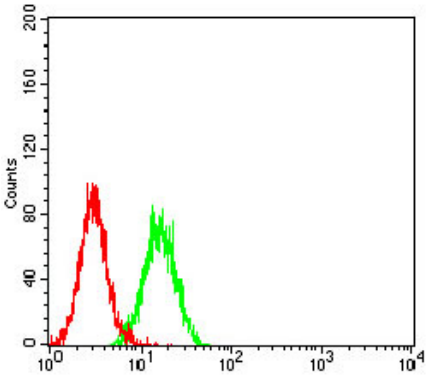


Figure 5:Flow cytometric analysis of K562 cells using ELANE mouse mAb (green) and negative control (red).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.