

Active Recombinant Human ELANE protein, His-SUMO-tagged

Cat. No. ELANE-3398H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human ELANE protein(P08246)(30~247 aa), fused with N-terminal His tag and SUMO tag, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	30-247 aa
Form	Lyophilized from sterile PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	Neutrophil elastase (NE), also known as polymorphonuclear leukocyte elastase, is a major protease in the primary granules of neutrophils, is involved in microbicidal activity. It is located primarily in the azurophil granules of polymorphonuclear leukocytes. NE is an important factor promoting inflammation, has bactericidal effects, and shortens the inflammatory process. NE also regulates tumor growth by promoting metastasis and tumor microenvironment remodeling. However, NE plays a role in killing tumors under certain conditions and promotes other diseases such as pulmonary ventilation dysfunction. Additionally, it plays a complex role in various physiological processes and mediates several diseases. Myeloperoxidase (MPO) has been identified as an interactor of NE, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human NE and recombinant rat MPO. Briefly, biotin-linked NE were diluted serially in PBS, with 0.01% BSA (pH 7.4).

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Duplicate samples of 100 µl were then transferred to MPO-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30min, then wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 µstop solution to the wells and read at 450 nm immediately. The binding activity of recombinant human NE and recombinant rat MPO was shown, the EC50 for this effect is 0.66 ug/mL.

Molecular Mass	37.0kDa
Endotoxin	<1.0EU per 1µg (determined by the LAL method).
Purity	> 95% as determined by SDS-PAGE.
Storage	Avoid repeated freeze/thaw cycles. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	ELANE elastase, neutrophil expressed [Homo sapiens]
Official Symbol	ELANE
Synonyms	ELANE; elastase, neutrophil expressed; ELA2, elastase 2, neutrophil; neutrophil elastase; HLE; HNE; leukocyte elastase; medullasin; NE; elastase-2; PMN elastase; elastase 2, neutrophil; human leukocyte elastase; polymorphonuclear elastase; bone marrow serine protease; granulocyte-derived elastase; GE; ELA2; SCN1; PMN-E;

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Gene ID 1991

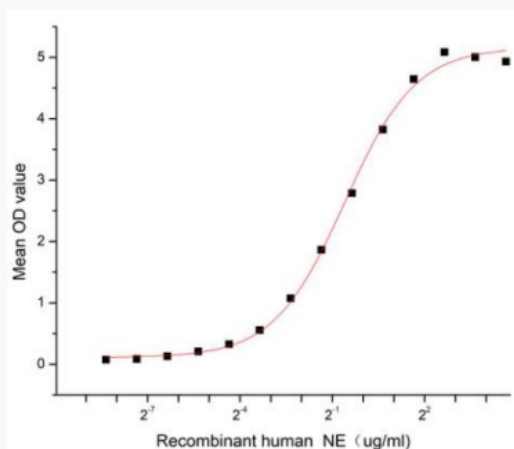
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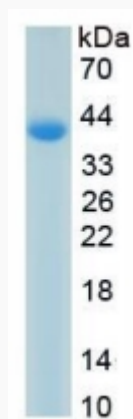
MIM 130130

UniProt ID P08246

Activity



SDS-PAGE



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