

Active Recombinant Human ELANE protein, His-GST-tagged

Cat. No. ELANE-2171H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human ELANE protein(P08246)(30~247 aa), fused with N-terminal His tag and GST tag, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	30-247 aa
Form	Lyophilized from sterile 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Bio-activity	Elastase2 (ELA2), elastase 2 is a serine proteinase in the same family as chymotrypsin and has broad substrate specificity. Secreted by neutrophils and macrophages during inflammation, it destroys bacteria and host tissue. The neutrophil form of elastase is 218 amino acids long, with two asparagine-linked carbohydrate chains (see glycosylation). Neutrophil elastase may play a role in degenerative and inflammatory diseases by its proteolysis of collagen-IV and elastin of the extracellular matrix. This protein degrades the outer membrane protein A (OmpA) of E. coli as well as the virulence factors of such bacteria as Shigella, Salmonella and Yersinia. Besides, Collagen Type XVII (COL17) has been identified as an interactor of ELA2, thus a binding ELISA assay was conducted to detect the interaction of recombinant human COL17 and recombinant human ELA2. Briefly, ELA2 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to

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COL17-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-ELA2 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50μ stop solution to the wells and read at 450nm immediately. The binding activity of ELA2 and COL17 was shown, and this effect was in a dose dependent manner.

Molecular Mass	53.3kDa
Endotoxin	<1.0EU per 1μg (determined by the LAL method).
Purity	> 97% 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 ddH ₂ O to a concentration of 0.1-0.5 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;
Gene ID	1991

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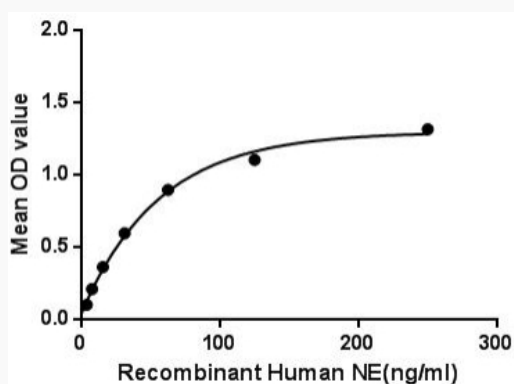
mRNA Refseq [NM_001972](#)

Protein Refseq [NP_001963](#)

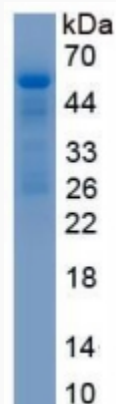
MIM [130130](#)

UniProt ID [P08246](#)

Activity



SDS-PAGE



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