

Active Recombinant Rat Elane protein, His-tagged

Cat. No. Elane-7444R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Rat Elane protein(D4A488)(31~271 aa), fused with N-terminal His tag, was expressed in E.coli.
Species	Rat
Source	E.coli
ProteinLength	31-271 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. Lactoferrin (LTF) has been identified as an interactor of NE, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant rat NE and recombinant goat LTF. 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 LTF-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 rat NE and recombinant goat LTF was shown, the EC50 for this effect is 1.19 ug/mL.

Molecular Mass	30.1kDa
Endotoxin	<1.0EU per 1µg (determined by the LAL method).
Purity	> 90% 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 [<i>Rattus norvegicus</i>]
Official Symbol	Elane
Synonyms	ELANE; elastase, neutrophil expressed; neutrophil elastase; elastase 2, neutrophil; Ela2;
Gene ID	299606

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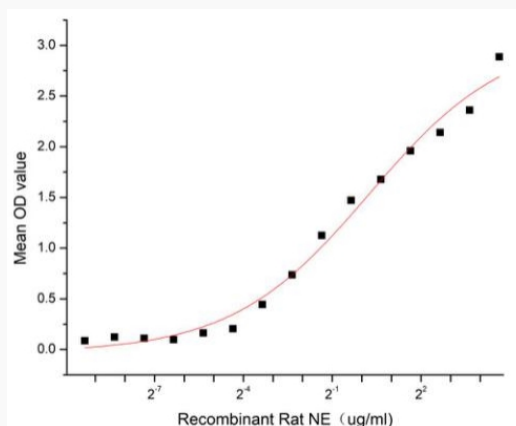
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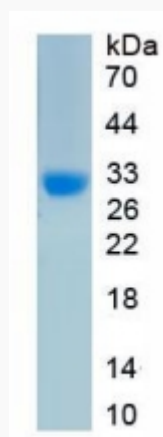
mRNA Refseq NM_001106767

Protein Refseq NP_001100237

Activity



SDS-PAGE



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