

Human Neutrophil elastase protein, His and GST tag

Cat. No. GTX00217-pro**Applications** Functional Assay**Species** Human**Package**

10 µg

Applications

Application Note

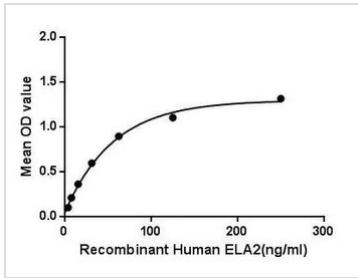
Elastase2 (ELA2), elastase 2 is a serine proteinase in the same family as chymotrypsin and has broad substrate specificity. Secreted by neutrophils and macrophages during inflammation, it destroys bacteria and host tissue. The neutrophil form of elastase is 218 amino acids long, with two asparagine-linked 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 100 µl were then transferred to 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 50 µl stop solution to the wells and read at 450nm immediately. The binding activity of ELA2 and COL17 was in a dose dependent manner.

Observed MW (kDa) 53 kDa.

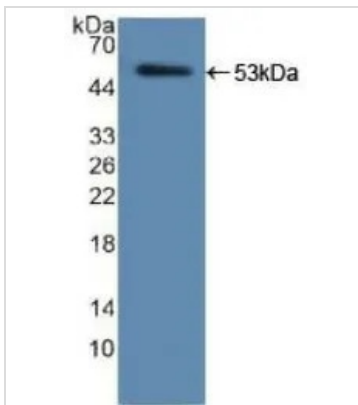
Properties

Form Lyophilized powder**Buffer** Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose.**Preservative** ProClin 300**Storage** For short-term storage (1-2 weeks), store at 4°C. For long-term storage, store at -20°C or below. After reconstitution, keep as concentrated solution. Avoid freeze-thaw cycles.**Region/Sequence** N-terminal His and GST-Tag; Ile30~Gln247 (NP_001963.1)**Expression System** E. coli**Purity** > 97%**Endotoxin** < 1 EU/µg**Conjugation** Unconjugated**Note** For laboratory use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.

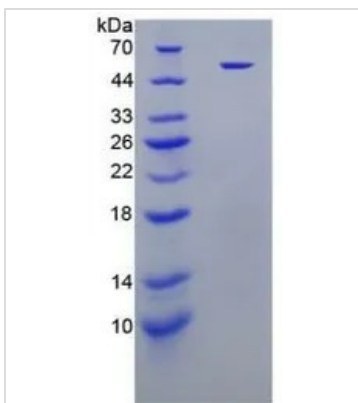
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DATA IMAGES

GTx00217-pro Functional Assay Image

Functional ELISA analysis of GTx00217-pro Human Neutrophil elastase protein which can bind immobilized COL17 protein.


GTx00217-pro Image

WB analysis of GTx00217-pro Human Neutrophil elastase protein.


GTx00217-pro Image

SDS-PAGE analysis of GTx00217-pro Human Neutrophil elastase protein.



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