

Neutrophil Elastase (203): sc-66073

BACKGROUND

Neutrophil Elastase (NE) is a serine protease that is expressed in bone marrow precursor cells, stored in peripheral blood granulocytes, and implicated in the progression of a variety of inflammatory diseases, including idiopathic pulmonary fibrosis, rheumatoid arthritis, adult respiratory distress syndrome and cystic fibrosis. In neutrophils, Neutrophil Elastase contributes largely to the proteolysis of phagocytosed proteins, the migration of neutrophils and the remodeling of tissues following injury. Neutrophil Elastase, which is also designated medullasin, is secreted into the extracellular matrix, where it is then capable of destroying connective tissue proteins, including elastin, proteoglycans and Type IV collagens. Neutrophil Elastase also mediates proteolysis by cleaving proteins that are associated with the complement system, such as antithrombin and Fibrinogen. Additionally, Neutrophil Elastase functions as a potent platelet agonist, where it potentiates the aggregation, secretion and mobilization of calcium in response to cathepsin G binding to platelet surface receptors.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ELA2 (human) mapping to 19p13.3.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SOURCE

Neutrophil Elastase (203) is a mouse monoclonal antibody raised against full length native Neutrophil Elastase of human origin.

APPLICATIONS

Neutrophil Elastase (203) is recommended for detection of Neutrophil Elastase of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Neutrophil Elastase siRNA (h): sc-36042, Neutrophil Elastase shRNA Plasmid (h): sc-36042-SH and Neutrophil Elastase shRNA (h) Lentiviral Particles: sc-36042-V.

Molecular Weight of Neutrophil Elastase: 29 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209 or U-937 cell lysate: sc-2239.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.



See **Neutrophil Elastase (G-2): sc-55549** for Neutrophil Elastase antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.