

Neutrophil elastase Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP12084a**Specification**

Neutrophil elastase Antibody (N-term) Blocking peptide - Product InformationPrimary Accession [P08246](#)**Neutrophil elastase Antibody (N-term) Blocking peptide - Additional Information****Gene ID** 1991**Other Names**

Neutrophil elastase, Bone marrow serine protease, Elastase-2, Human leukocyte elastase, HLE, Medullasin, PMN elastase, ELANE, ELA2

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Neutrophil elastase Antibody (N-term) Blocking peptide - Protein Information**Name** ELANE**Synonyms** ELA2**Function**

Serine protease that modifies the functions of natural killer cells, monocytes and granulocytes. Inhibits C5a-dependent neutrophil enzyme release and chemotaxis (PubMed:15140022). Promotes cleavage of GSDMB, thereby inhibiting pyroptosis (PubMed:36899106). Capable of killing E.coli but not S.aureus in vitro; digests outer membrane protein A (ompA) in E.coli and K.pneumoniae (PubMed:10947984).

Cellular Location

Cytoplasmic vesicle, phagosome. Note=Localized in phagolysosomes following ingestion of E.coli by neutrophils

Tissue Location

Bone marrow cells. Neutrophil (PubMed:10947984).

Neutrophil elastase Antibody (N-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

Neutrophil elastase Antibody (N-term) Blocking peptide - Images

Neutrophil elastase Antibody (N-term) Blocking peptide - Background

Elastases form a subfamily of serine proteases that hydrolyze many proteins in addition to elastin. Humans have six elastase genes which encode the structurally similar proteins. The product of this gene hydrolyzes proteins within specialized neutrophil lysosomes, called azurophilic granules, as well as proteins of the extracellular matrix following the protein's release from activated neutrophils. The enzyme 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*. Mutations in this gene are associated with cyclic neutropenia and severe congenital neutropenia (SCN). This gene is clustered with other serine protease gene family members, azurocidin 1 and proteinase 3 genes, at chromosome 19pter. All 3 genes are expressed coordinately and their protein products are packaged together into azurophilic granules during neutrophil differentiation.

Neutrophil elastase Antibody (N-term) Blocking peptide - References

Kallquist, L., et al. *Exp. Cell Res.* 316(19):3182-3196(2010) Rabai, G., et al. *Thromb. Res.* 126 (2), E94-E101 (2010) : Newburger, P.E., et al. *Pediatr Blood Cancer* 55(2):314-317(2010) Hayashi, M., et al. *J Nippon Med Sch* 77(2):80-85(2010) Hector, A., et al. *Mediators Inflamm.* 2010, 809591 (2010) :