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ELA2 Antibody (monoclonal) (M07)

Mouse monoclonal antibody raised against a partial recombinant ELA2.
Catalog # AT1888a

Product Information

Application	E
Primary Accession	P08246
Other Accession	NM_001972
Reactivity	Human
Host	Mouse
Clonality	monoclonal
Isotype	IgG2a Kappa
Clone Names	1A11
Calculated MW	28518

Additional Information

Gene ID	1991
Other Names	Neutrophil elastase, Bone marrow serine protease, Elastase-2, Human leukocyte elastase, HLE, Medullasin, PMN elastase, ELANE, ELA2
Target/Specificity	ELA2 (NP_001963, 168 a.a. ~ 267 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	ELA2 Antibody (monoclonal) (M07) is for research use only and not for use in diagnostic or therapeutic procedures.

Background

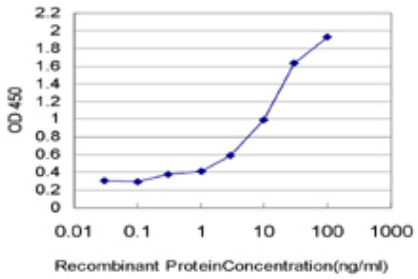
Elastases form a subfamily of serine proteases that hydrolyze many proteins in addition to elastin. Humans have six elastase genes which encode the structurally similar proteins. The product of this gene hydrolyzes proteins within specialized neutrophil lysosomes, called azurophil granules, as well as 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 azurophil granules during

neutrophil differentiation.

References

Cyclic neutropenia and severe congenital neutropenia in patients with a shared ELANE mutation and paternal haplotype: evidence for phenotype determination by modifying genes. Newburger PE, et al. Pediatr Blood Cancer, 2010 Aug. PMID 20582973.Effect of urinary trypsin inhibitor on preterm labor with high granulocyte elastase concentration in cervical secretions. Hayashi M, et al. J Nippon Med Sch, 2010 Apr. PMID 20453419.Structures of human proteinase 3 and neutrophil elastase--so similar yet so different. Hajjar E, et al. FEBS J, 2010 May. PMID 20423453.Efficacy of neutrophil elastase inhibitor on type A acute aortic dissection. Niino T, et al. Thorac Cardiovasc Surg, 2010 Apr. PMID 20376727.Effect of a neutrophil elastase inhibitor on acute lung injury after cardiopulmonary bypass. Fujii M, et al. Interact Cardiovasc Thorac Surg, 2010 Jun. PMID 20354035.

Images



Detection limit for recombinant GST tagged ELA2 is approximately 0.3ng/ml as a capture antibody.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.