

Datasheet: 4050-0096

Description:	MOUSE ANTI HUMAN ELASTASE
Specificity:	ELASTASE
Other names:	ELA2
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	ELA10-101.5 (39A)
Isotype:	IgG1
Quantity:	0.2 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA	▪			
Western Blotting			▪	
Immunofluorescence			▪	
Functional Assays	▪			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using the appropriate negative/positive controls.

Target Species	Human
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃)
Approx. Protein Concentrations	0.5 mg/ml
Immunogen	Elastase from human neutrophils.

**External Database
Links**

UniProt:

[P08246](#) [Related reagents](#)

Entrez Gene:

[1991](#) ELANE [Related reagents](#)

Synonyms

ELA2

Specificity

Mouse anti Human elastase antibody, clone 39A recognizes human neutrophil elastase, also known as elastase-2, Bone marrow serine protease, PMN elastase or Medullasin. Elastase is a 238 amino acid ~27 kDa enzyme with an additional 29 amino acid signal and pro-peptide region. Mutations of the ELA2 gene can lead to a number of hematopoietic disorders including cyclic hematopoiesis ([CH](#)) characterized by a 21 day cycle of bone marrow derived blood cell production with neutrophil numbers ranging between normal levels and almost zero ([Horwitz et al. 1999](#)) and severe congenital autosomal neutropenia ([SCN1](#)) demonstrating developmental arrest of granulopoiesis at the promyelocyte stage ([Bellanné-Chantelot et al. 2004](#)) with both conditions leading to a predisposition to bacterial infections..

References

1. Durant, S. *et al.* (2004) Apoptosis-induced proteinase 3 membrane expression is independent from degranulation. [J Leukoc Biol. 75 \(1\): 87-98.](#)
2. Vong, L. *et al.* (2007) Annexin 1 cleavage in activated neutrophils: a pivotal role for proteinase 3. [J Biol Chem. 282 \(41\): 29998-30004.](#)
3. Davies, P.L. *et al.* (2008) Monoclonal anti-neutrophil elastase antibody characterisation: ability to block function, detect free versus serpin-complexed enzyme and stain intracellular granules. [J Immunol Methods. 336 \(2\): 175-82.](#)
4. Muthana, M. *et al.* (2015) C5orf30 is a negative regulator of tissue damage in rheumatoid arthritis. [Proc Natl Acad Sci U S A. 112 \(37\): 11618-23.](#)
5. Buján, J. *et al.* (2003) Expression of elastic components in healthy and varicose veins. [World J Surg. 27 \(8\): 901-5.](#)
6. Korkmaz, B. *et al.* (2005) Inhibition of neutrophil elastase by alpha1-protease inhibitor at the surface of human polymorphonuclear neutrophils. [J Immunol. 175 \(5\): 3329-38.](#)

Storage

Store at +4°C or at -20°C if preferred.
Storage in frost-free freezers is not recommended.
This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life

18 months from date of despatch.

**Health And Safety
Information**

Material Safety Datasheet documentation available at:
Material Safety Datasheet Documentation #10040 available at:
<https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR76...) [RPE](#)
Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)

Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight@488](#), [DyLight@549](#),
[DyLight@649](#), [DyLight@680](#), [DyLight@800](#),
[FITC](#), [HRP](#)

Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

Goat Anti Mouse IgG (STAR77...) [HRP](#)

Rabbit Anti Mouse IgG (STAR12...) [RPE](#)

Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

Rabbit Anti Mouse IgG (STAR8...) [DyLight@800](#)

Goat Anti Mouse IgG (STAR70...) [FITC](#)

Human Anti Mouse IgG1 (HCA036...) [HRP](#)

Rabbit Anti Mouse IgG (STAR13...) [HRP](#)

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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