

Datasheet: 4050-0096

**BATCH NUMBER 149948**

|                      |                           |
|----------------------|---------------------------|
| <b>Description:</b>  | MOUSE ANTI HUMAN ELASTASE |
| <b>Specificity:</b>  | ELASTASE                  |
| <b>Other names:</b>  | ELA2                      |
| <b>Format:</b>       | Purified                  |
| <b>Product Type:</b> | Monoclonal Antibody       |
| <b>Clone:</b>        | ELA10-101.5 (39A)         |
| <b>Isotype:</b>      | IgG1                      |
| <b>Quantity:</b>     | 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](http://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.

|                        |                                                               |
|------------------------|---------------------------------------------------------------|
| <b>Target Species</b>  | Human                                                         |
| <b>Product Form</b>    | Purified IgG - liquid                                         |
| <b>Preparation</b>     | Purified IgG prepared by affinity chromatography on Protein G |
| <b>Buffer Solution</b> | Phosphate buffered saline                                     |
| <b>Preservative</b>    | 0.09% Sodium Azide (NaN <sub>3</sub> )                        |

## Stabilisers

---

|                                |           |
|--------------------------------|-----------|
| 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 |
|----------|------|

---

|      |           |
|------|-----------|
| RRID | AB_617258 |
|------|-----------|

---

## 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.

---

|                                      |                                                                                                                                                                                          |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Guarantee</b>                     | 12 months from date of despatch                                                                                                                                                          |
| <b>Health And Safety Information</b> | Material Safety Datasheet documentation #10040 available at:<br><a href="https://www.bio-rad-antibodies.com/SDS/4050-0096">https://www.bio-rad-antibodies.com/SDS/4050-0096</a><br>10040 |
| <b>Regulatory</b>                    | For research purposes only                                                                                                                                                               |

## Related Products

### Recommended Secondary Antibodies

|                                         |                                                                                                                                                                                                                                     |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rabbit Anti Mouse IgG (STAR12...)       | <a href="#">RPE</a>                                                                                                                                                                                                                 |
| Goat Anti Mouse IgG IgA IgM (STAR87...) | <a href="#">HRP</a>                                                                                                                                                                                                                 |
| Goat Anti Mouse IgG (STAR76...)         | <a href="#">RPE</a>                                                                                                                                                                                                                 |
| Rabbit Anti Mouse IgG (STAR13...)       | <a href="#">HRP</a>                                                                                                                                                                                                                 |
| Goat Anti Mouse IgG (STAR70...)         | <a href="#">FITC</a>                                                                                                                                                                                                                |
| Goat Anti Mouse IgG (H/L) (STAR117...)  | <a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®550</a> ,<br><a href="#">DyLight®650</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> ,<br><a href="#">FITC</a> , <a href="#">HRP</a> |
| Rabbit Anti Mouse IgG (STAR9...)        | <a href="#">FITC</a>                                                                                                                                                                                                                |
| Goat Anti Mouse IgG (STAR77...)         | <a href="#">HRP</a>                                                                                                                                                                                                                 |
| Goat Anti Mouse IgG (Fc) (STAR120...)   | <a href="#">FITC</a> , <a href="#">HRP</a>                                                                                                                                                                                          |

### Recommended Negative Controls

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

|                                  |                                                                                                                                         |                  |                                                                                                                                                 |               |                                                                                                                                                     |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>North &amp; South America</b> | Tel: +1 800 265 7376<br>Fax: +1 919 878 3751<br>Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a> | <b>Worldwide</b> | Tel: +44 (0)1865 852 700<br>Fax: +44 (0)1865 852 739<br>Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a> | <b>Europe</b> | Tel: +49 (0) 89 8090 95 21<br>Fax: +49 (0) 89 8090 95 50<br>Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a> |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)  
'M363071:200528'

Printed on 18 Jan 2024