

Datasheet: MCA2117

Description:	MOUSE ANTI HUMAN GRANZYME A
Specificity:	GRANZYME A
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	GA6
Isotype:	IgG1
Quantity:	0.1 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 (1)	▪			1/50 - 1/200
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting	▪			

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 appropriate negative/positive controls.

(1) This product requires antigen retrieval using heat treatment prior to staining of paraffin sections. Sodium citrate buffer pH 6.0 is recommended for this purpose.

Target Species	Human
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
Buffer Solution	Phosphate buffered saline.
Preservative Stabilisers	0.09% sodium azide (NaN ₃)

Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Recombinant human Granzyme A.
External Database Links	<p>UniProt: P12544 Related reagents</p> <p>Entrez Gene: 3001 GZMA Related reagents</p>
Synonyms	CTLA3, HFSP
RRID	AB_2263934
Fusion Partners	Spleen cells from immunised Balb/c mice were fused with cells of the mouse SP2/0 myeloma cell line.
Specificity	<p>Mouse anti Human granzyme A antibody, clone GA6 recognizes Granzyme A, a ~60 kDa disulphide-linked homodimeric protein of two 262 amino acid chains, expressed in cytoplasmic granules of cytotoxic lymphocytes and NK cells.</p> <p>Granzyme A is involved in the induction of apoptosis via its activity as a serine protease, but this would seem to be subsidiary to the role of Granzyme B. Granzyme A deficient mice are indistinguishable from normal animals in their response to infection.</p> <p>Granzyme A has been proposed as a potential biomarker for patients with active tuberculosis with significantly lower levels present in the plasma of patients with the active form of the disease compared to patients with latent infection (Guggino <i>et al.</i> 2015).</p>
References	<ol style="list-style-type: none"> 1. Kummer, J.A. <i>et al.</i> (1993) Production and characterization of monoclonal antibodies raised against recombinant human granzymes A and B and showing cross reactions with the natural proteins. J Immunol Methods. 163 (1): 77-83. 2. Mahrus, S. & Craik, C.S. (2005) Selective chemical functional probes of granzymes A and B reveal granzyme B is a major effector of natural killer cell-mediated lysis of target cells. Chem Biol. 12: 567-77. 3. Meade, J.L. <i>et al.</i> (2009) Proteolytic activation of the cytotoxic phenotype during human NK cell development. J Immunol. 183: 803-13. 4. Hochegger, K. <i>et al.</i> (2007) Expression of granzyme A in human polymorphonuclear neutrophils. Immunology. 121: 166-73. 5. Grodzovski, I. <i>et al.</i> (2011) IL-2-granzyme A chimeric protein overcomes multidrug resistance (MDR) through a caspase 3-independent apoptotic pathway. Int J Cancer. 128: 1966-80. 6. Suck, G. <i>et al.</i> (2005) KHYG-1, a model for the study of enhanced natural killer cell cytotoxicity. Exp Hematol. 33: 1160-71. 7. Vrazo, A.C. <i>et al.</i> (2015) Live cell evaluation of granzyme delivery and death receptor signaling in tumor cells targeted by human natural killer cells. Blood. 126 (8): e1-e10.

8. Korten, S. *et al.* (2008) Natural death of adult *Onchocerca volvulus* and filaricidal effects of doxycycline induce local FOXP3+/CD4+ regulatory T cells and granzyme expression. [Microbes Infect. 10 \(3\): 313-24.](#)

Storage This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

Guarantee 12 months from date of despatch

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

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...) [HRP](#)
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
Goat Anti Mouse IgG (STAR76...) [RPE](#)
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),
[FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [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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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)
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