

Datasheet: MCA2120 BATCH NUMBER 151395

Description:	MOUSE ANTI GRANZYME B		
Specificity:	GRANZYME B		
Format:	Purified		
Product Type:	Monoclonal Antibody		
Clone:	GB11		
Isotype:	lgG1		
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 (1)	•			1/10 - 1/100
Immunohistology - Frozen	-			
Immunohistology - Paraffin			•	
ELISA	•			2ug/ml - 5ug/ml
Immunoprecipitation	-			
Western Blotting			•	
Immunofluorescence	-			

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) Membrane permeabilisation is required for this application. Bio-Rad recommends the use of Leucoperm[™] (Product Code <u>BUF09</u>) for this purpose.

Human
Reacts with: Chimpanzee, Monkey, Rhesus Monkey N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.
Purified IgG - liquid

Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
Buffer Solution	Tris buffered saline
Preservative Stabilisers	0.09% Sodium azide
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Purified human Granzyme B.
External Database Links	UniProt: P10144 Related reagents Entrez Gene:
	3002 GZMB Related reagents
Synonyms	CGL1, CSPB, CTLA1, GRB
RRID	AB_2114582
Fusion Partners	Spleen cells from immunised Balb/c mice were fused with cells of the mouse SP2/0 myeloma cell line.
Specificity	Mouse anti Granzyme B antibody, clone GB11 recognizes the serine protease Granzyme B, important in the induction of apoptosis in target cells by cytolytic lymphocytes (CTLs).
	Granzyme B plays a key role in the induction of apoptosis by CTLs. After delivery to the target cell, Granzyme B activates the cascade of caspases that finally results in cell death.
	Mouse anti Granzyme B antibody, clone GB11 is suitable for the detection of Granzyme B expressing cells by flow cytometry. In normal peripheral blood approximately 20% of CD8+ve T cells have been found to express Granzyme B.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells or 100ul whole blood.
ELISA	This antibody has been reported to function as a capture reagent in sandwich ELISA assays for soluble Granzyme B in conjunction with biotin conjugated <u>GB10</u> as detection reagent.
References	 Spaeny-Dekking, E.H. et al. (1998) Extracellular granzymes A and B in humans: detection of native species during CTL responses in vitro and in vivo. J Immunol. 160 (7): 3610-6. Tschopp, C.M. (2006) Granzyme B, a novel mediator of allergic inflammation: its induction and release in blood basophils and human asthma. Blood.108:2290-9.

- 3. Wever, D. C. *et al.* (1998) The CD8+ Granzyme B+ T cell subset in peripheral blood from healthy individuals contains activated and apoptosis-prone cells. <u>Immunol. 93: 383</u> 4. Hsi, B.L. & Yeh, C.J. (1986) Monoclonal antibodies to human amnion. <u>J Reprod Immunol. 9 (1): 11-21.</u>
- 5. 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. <u>Chem Biol. 12: 567-77.</u>
- 6. Davis, C.C. *et al.* (2010) Interleukin-7 permits Th1/Tc1 maturation and promotes ex vivo expansion of cord blood T cells: a critical step toward adoptive immunotherapy after cord blood transplantation. Cancer Res. 70: 5249-58.
- 7. Hallermalm, K. *et al.* (2008) Modulation of the tumor cell phenotype by IFN-gamma results in resistance of uveal melanoma cells to granule-mediated lysis by cytotoxic lymphocytes. J Immunol. 180: 3766-74.
- 8. Hufner, K. *et al.* (2009) Fewer latent herpes simplex virus type 1 and cytotoxic T cells occur in the ophthalmic division than in the maxillary and mandibular divisions of the human trigeminal ganglion and nerve. J Virol. 83: 3696-703.
- 9. Kumar, D. *et al.* (2009) JNK MAPK pathway regulates constitutive transcription of CCL5 by human NK cells through SP1. <u>J Immunol</u>. 182: 1011-20.
- 10. Clayton, A. *et al.* (2008) Human tumor-derived exosomes down-modulate NKG2D expression. <u>J Immunol. 180: 7249-58.</u>
- 11. Schleypen, J.S. *et al.* (2006) Cytotoxic markers and frequency predict functional capacity of natural killer cells infiltrating renal cell carcinoma. Clin Cancer Res. 12: 718-25.
- 12. Hodge, S. *et al.* (2015) Increased CD8 T-cell granzyme B in COPD is suppressed by treatment with low-dose azithromycin. Respirology. 20 (1): 95-100.
- 13. Kumagai-Takei, N. *et al.* (2016) The Suppressed Induction of Human Mature Cytotoxic T Lymphocytes Caused by Asbestos Is Not due to Interleukin-2 Insufficiency. <u>J Immunol</u> Res. 2016: 7484872.

Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10057 available at: https://www.bio-rad-antibodies.com/SDS/MCA2120 10057
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...) **RPE**

Goat Anti Mouse IgG IgA IgM (STAR87...) HRP Goat Anti Mouse IgG (STAR76...)

Goat Anti Mouse IgG (STAR70...) **FITC**

Rabbit Anti Mouse IgG (STAR13...) **HRP**

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

Rabbit Anti Mouse IgG (STAR9...) **FITC** Goat Anti Mouse IgG (STAR77...) **HRP**

Goat Anti Mouse IgG (H/L) (STAR117...) Alk. Phos., DyLight®488, DyLight®550,

<u>RPE</u>

DyLight®650, DyLight®680, DyLight®800,

FITC, HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

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> Email: antibody_sales_us@bio-rad.com Email: antibody_sales_uk@bio-rad.com Email: antibody_sales_de@bio-rad.com

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M366219:200529'

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