

Datasheet: MCA5751 BATCH NUMBER 158738

Description:	MOUSE ANTI HUMAN EOSINOPHIL MAJOR BASIC PROTEIN		
Specificity:	EOSINOPHIL MAJOR BASIC PROTEIN		
Format:	Purified		
Product Type:	Monoclonal Antibody		
Clone:	BMK-13		
lsotype:	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 <u>www.bio-rad-antibodies.com/protocols</u> .						
		Yes	No	Not Determined	Suggested Dilution		
	Immunohistology - Frozen (1)	•			1/20 - 1/50		
	Immunohistology - Paraffin (2)	•			1/20 - 1/50		
	 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) It is recommended that sections are fixed in a 1:1 mixture of acetone and methanol and air-dried for 1 hour. Good results may be achieved via staining with the <u>APAAP</u> method. (2) This product requires enzymatic pre-treatment of paraffin sections prior to staining. Pepsin is recommended for this purpose. NB. Heat-mediated antigen retrieval methods should not be used. 						
Target Species	Human						
Species Cross Reactivity	N.B. Antibody reactivity a reactivity is derived from	Reacts weakly with:Guinea Pig I.B. Antibody reactivity and working conditions may vary between species. Cross eactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for					

Product Form	Purified IgG - liquid
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.02% Sodium Azide (NaN ₃) 0.1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.1mg/ml
External Database Links	UniProt: P13727 Related reagents Entrez Gene: 5553 PRG2 Related reagents
Synonyms	MBP
RRID	AB_10671914
Specificity	Mouse anti Human Eosinophil Major Basic Protein antibody, clone BMK-13 recongises the Eosinophil Major Basic Protein (EMBP), a 117 amino acid protein, corresponding to residues 106-222 of Bone marrow proteoglycan (precursor). Mouse anti Human Eosinophil Major Basic Protein antibody, clone BMK-13 stains both resting and activated eosinophils of bronchial and skin sections of allergic and normal sites and may be considered a Pan eosinophil marker. Mouse anti Human Eosinophil Major Basic Protein antibody, clone BMK-13 cross reacts weakly with basophils which also contain low levels of EMBP. No cross reactivity with other human cells or proteins has been noted.
References	 Moqbel, R. <i>et al.</i> (1992) Application of monoclonal antibodies against major basic protein (BMK-13) and eosinophil cationic protein (EG1 and EG2) for quantifying eosinophils in bronchial biopsies from atopic asthma. <u>Clin Exp Allergy. 22 (2): 265-73.</u> Haczku, A. <i>et al.</i> (1995) T-cells subsets and activation in bronchial mucosa of sensitized Brown-Norway rats after single allergen exposure. <u>Immunology. 85 (4): 591-7.</u> Hashimoto, Y. <i>et al.</i> (1993) Purification of the antibacterial fragments of guinea-pig major basic protein. <u>Biochim Biophys Acta. 1203 (2): 236-42.</u> Underwood, S. <i>et al.</i> (1995) Time-course of antigen-induced airway inflammation in the guinea-pig and its relationship to airway hyperresponsiveness. <u>Eur Respir J. 8 (12): 2104-13.</u> Cameron, L. <i>et al.</i> (2000) Evidence for local eosinophil differentiation within allergic nasal mucosa: inhibition with soluble IL-5 receptor. <u>J Immunol. 164 (3): 1538-45.</u> Walsh, G.M. <i>et al.</i> (1999) Resting and cytokine-stimulated human small airway epithelial cells recognize and engulf apoptotic eosinophils. <u>Blood. 94 (8): 2827-35.</u> Lacy, P. <i>et al.</i> (1999) Rapid mobilization of intracellularly stored RANTES in response to interferon-gamma in human eosinophils. <u>Blood. 94 (1): 23-32.</u> Mishima, H. <i>et al.</i> (1998) CD4+ T cells can induce airway hyperresponsiveness to allergen challenge in the brown norway rat. <u>Am J Respir Crit Care Med. 158 (6): 1863-70.</u>

 Lacy, P. *et al.* (2003) Divergence of mechanisms regulating respiratory burst in blood and sputum eosinophils and neutrophils from atopic subjects. <u>J Immunol. 170 (5): 2670-9.</u>
 Lacy, P. *et al.* (1998) Intracellular localization of interleukin-6 in eosinophils from atopic asthmatics and effects of interferon gamma. <u>Blood. 91 (7): 2508-16.</u>

11. Tulic, M.K. *et al.* (2009) Thymic indoleamine 2,3-dioxygenase-positive eosinophils in young children: potential role in maturation of the naive immune system. <u>Am J Pathol. 175</u> (5): 2043-52.

12. Mahmudi-azer, S. *et al.* (2002) Translocation of the tetraspanin CD63 in association with human eosinophil mediator release. <u>Blood. 99 (11): 4039-47.</u>

13. Du, L. *et al.* (2016) Increased Duodenal Eosinophil Degranulation in Patients with Functional Dyspepsia: A Prospective Study. <u>Sci Rep. 6: 34305.</u>

14. Vanheel, H. *et al.* (2014) Impaired duodenal mucosal integrity and low-grade inflammation in functional dyspepsia. <u>Gut. 63 (2): 262-71.</u>

 Haczku, A. *et al.* (1995) T-cells subsets and activation in bronchial mucosa of sensitized Brown-Norway rats after single allergen exposure. <u>Immunology. 85 (4): 591-7.</u>
 Wiersma, L.C. *et al.* (2015) Pathogenesis of infection with 2009 pandemic H1N1 influenza virus in isogenic guinea pigs after intranasal or intratracheal inoculation. <u>Am J</u> <u>Pathol. 185 (3): 643-50.</u>

17. Tyler, M.A. *et al.* (2017) Large-scale gene expression profiling reveals distinct type 2 inflammatory patterns in chronic rhinosinusitis subtypes. <u>J Allergy Clin Immunol. 139 (3):</u> 1061-1064.e4.

18. Wolf, W.A. *et al.* (2015) Predictors of response to steroid therapy for eosinophilic esophagitis and treatment of steroid-refractory patients. <u>Clin Gastroenterol Hepatol. 13 (3):</u> 452-8.

19. Al-Rabia, M.W. *et al.* (2004) Membrane receptor-mediated apoptosis and caspase activation in the differentiated EoL-1 eosinophilic cell line. <u>J Leukoc Biol. 75 (6): 1045-55.</u> 20. Dellon, E.S. *et al.* (2012) Diagnostic utility of major basic protein, eotaxin-3, and leukotriene enzyme staining in eosinophilic esophagitis. <u>Am J Gastroenterol. 107 (10): 1503-11.</u>

21. Isogai S *et al.* (2003) The effects of CD8⁺ $\gamma\delta$ T cells on late allergic airway responses and airway inflammation in rats. J Allergy Clin Immunol. 112 (3): 547-55.

22. Cirillo, C. *et al.* (2015) Evidence for neuronal and structural changes in submucous ganglia of patients with functional dyspepsia. <u>Am J Gastroenterol. 110 (8): 1205-15.</u>

23. Whelan, K.A. *et al.* (2019) Persistent Basal Cell Hyperplasia is Associated with Clinical and Endoscopic Findings in Patients With Histologically Inactive Eosinophilic Esophagitis. <u>Clin Gastroenterol Hepatol. Sep 06 [Epub ahead of print].</u>

24. Dellon, E.S. *et al.* (2020) Utility of major basic protein, eotaxin-3, and mast cell tryptase staining for prediction of response to topical steroid treatment in eosinophilic esophagitis: analysis of a randomized, double-blind, double dummy clinical trial. <u>Dis</u> <u>Esophagus. 33(6):doaa003.</u>

25. Duan, S. *et al.* (2021) Eosinophil-associated microinflammation in the gastroduodenal tract contributes to gastric hypersensitivity in a rat model of early-life adversity. <u>Am J</u> <u>Physiol Gastrointest Liver Physiol. 320 (2): G206-G216.</u>

26. Duan, S. *et al.* (2022) Yokukansan Suppresses Gastric Hypersensitivity and Eosinophil-associated Microinflammation in Rats With Functional Dyspepsia. J <u>Neurogastroenterol Motil. 28 (2): 255-64.</u>

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	Guaranteed until date of expiry. Please see product label.			
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA5751 10041			
Regulatory	For research purposes only			

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12)	<u>RPE</u>			
Goat Anti Mouse IgG IgA IgM (STAR87) <u>HRP</u>				
Goat Anti Mouse IgG (STAR76)	<u>RPE</u>			
Goat Anti Mouse IgG (STAR70)	<u>FITC</u>			
Goat Anti Mouse IgG (H/L) (STAR117)	<u>Alk. Phos.</u> , <u>DyLight®488</u> , <u>DyLight®550</u> ,			
	<u>DyLight®650, DyLight®680, DyLight®800,</u>			
	<u>FITC</u> , <u>HRP</u>			
Goat Anti Mouse IgG (STAR77)	HRP			
Rabbit Anti Mouse IgG (STAR9)	FITC			
Goat Anti Mouse IgG (Fc) (STAR120)	FITC, HRP			
Rabbit Anti Mouse IgG (STAR13)	HRP			
 with 8 South Tol: +1 800 265 7376 Worldwi	to Tal: +44 (0)1865 852 700 Europo Tal: +40 (0) 80 8000 05 21			

North & South	Tel: +1 800 265 7376	Worldwide	Tel: +44 (0)1865 852 700	Europe	Tel: +49 (0) 89 8090 95 21
America	Fax: +1 919 878 3751		Fax: +44 (0)1865 852 739		Fax: +49 (0) 89 8090 95 50
	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 'M382518:210513'

Printed on 25 Jul 2024

© 2024 Bio-Rad Laboratories Inc | Legal | Imprint