Datasheet: MCA5751 BATCH NUMBER 164237

| Description: | MOUSE ANTI HUMAN EOSINOPHIL MAJOR BASIC PROTEIN | | |
|---------------|-------------------------------------------------|--|--|
| Specificity: | EOSINOPHIL MAJOR BASIC PROTEIN | | |
| Format: | Purified | | |
| Product Type: | Monoclonal Antibody | | |
| Clone: | BMK-13 | | |
| 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 <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 | Reacts with: Rat Reacts weakly with:Guinea Pig 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. | | | | |

| Product Form | Purified IgG - liquid |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Preparation | Antibody purified from tissue culture supernatant |
| 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: <u>P13727</u> 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 | |

cells recognize and engulf apoptotic eosinophils. Blood. 94 (8): 2827-35.

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

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

17. 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>
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20. Du, L. *et al.* (2016) Increased Duodenal Eosinophil Degranulation in Patients with Functional Dyspepsia: A Prospective Study. <u>Sci Rep. 6: 34305.</u>

21. 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.

22. Whelan, K.A. *et al.* (2020) Persistent Basal Cell Hyperplasia Is Associated With Clinical and Endoscopic Findings in Patients With Histologically Inactive Eosinophilic Esophagitis. <u>Clin Gastroenterol Hepatol. 18 (7): 1475-1482.e1.</u>

23. 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>

24. 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>

25. 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) | RPE | | | |
|-------------------------------------------------|----------------------------------------------------------------|--|--|--|
| Goat Anti Mouse IgG IgA IgM (STAR87) <u>HRP</u> | | | | |
| Goat Anti Mouse IgG (STAR76) | RPE | | | |
| Goat Anti Mouse IgG (STAR70) | <u>FITC</u> | | | |
| Goat Anti Mouse IgG (H/L) (STAR117) | <u>Alk. Phos., DyLight®488, DyLight®550,</u> | | | |
| | <u>DyLight®650</u> , <u>DyLight®680</u> , <u>DyLight®800</u> , | | | |
| | FITC, HRP | | | |
| 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 | | | |
| Recommended Negative Controls | | | | |

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

| 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-ra | d.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 'M410360:221028'

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