Datasheet: MCA1465T

Description:	MOUSE ANTI HUMAN DEFENSIN
Specificity:	DEFENSIN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	DEF-3
Isotype:	IgG1
Quantity:	25 µg

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)	▪			
Immunohistology - Frozen	▪			0.1 - 0.5ug/ml
Immunohistology - Paraffin (2)	▪			0.2 - 1.0ug/ml
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) **Membrane permeabilization is required for this application. Bio-Rad recommends the use of Leucoperm (BUF09) for this purpose.**

(2) **This product requires protein digestion pre-treatment of paraffin sections e.g. trypsin or pronase.**

Target Species	Human
Product Form	Purified IgG - liquid
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN_3) 0.5% Bovine Serum Albumin

Approx. Protein Concentrations	IgG concentration 0.2 mg/ml
External Database Links	**UniProt:** P59665 Related reagents P59666 Related reagents P12838 Related reagents **Entrez Gene:** 1667 DEFA1 Related reagents 1668 DEFA3 Related reagents 1669 DEFA4 Related reagents
Synonyms	DEF1, DEF3, DEF4, DEFA2, MRS
RRID	AB_2091686
Specificity	**Mouse anti Human defensin, clone DEF-3** recognizes the product of the human defensin alpha 1 gene, HNP-1 or neutrophil defensin 1, a 94 amino acid (including a 19aa signal peptide) member of the antibiotic alpha defensin family. Defensin alpha 1 is expressed by mature neutrophils. Defensins are a group of small cyclic peptides which comprise approximately 30% of the total protein content of neutrophil azurophilic granules. Various functions have been reported for the defensins, including antibacterial and antifungal activity and chemotactic activity for monocytes. Mouse anti Human defensin, clone DEF-3 recognizes alpha defensins (human neutrophil peptides) 1-3. Binding to defensin 4 has not been tested. Defensins are up-regulated during the acute phase of diseases such as shigellosis or infection with *Helicobacter pylori* (Kocsis *et al.* 2009)
Histology Positive Control Tissue	Human tonsil
References	1. Dudal, S. *et al.* (2006) Release of LL-37 by activated human Vgamma9Vdelta2 T cells: a microbicidal weapon against *Brucella suis*. J Immunol. 177: 5533-9. 2. Tschopp, C.M. *et al.* (2006) Granzyme B, a novel mediator of allergic inflammation: its induction and release in blood basophils and human asthma. Blood. 108: 2290-9. 3. Qadri, F. *et al.* (2004) Acute dehydrating disease caused by *Vibrio cholerae* serogroups O1 and O139 induce increases in innate cells and inflammatory mediators at the mucosal surface of the gut. Gut. 53: 62-9. 4. Sun, L. *et al.* (2005) Human beta-defensins suppress human immunodeficiency virus infection: potential role in mucosal protection. J Virol. 79: 14318-29. 5. Xu, N. *et al.* (2008) Human alpha-defensin-1 inhibits growth of human lung adenocarcinoma xenograft in nude mice. Mol Cancer Ther. 7: 1588-97. 6. Soylu, O.B. *et al.* (2008) Alpha-defensin expression in the gastric tissue of children with

Helicobacter pylori-associated chronic gastritis: an immunohistochemical study. J Pediatr Gastroenterol Nutr. 46: 474-7.
7. Raqib, R. *et al.* (2003) Persistence of mucosal mast cells and eosinophils in *Shigella*-infected children. Infect Immun. 71: 2684-92.
8. Kocsis, A.K. *et al.* (2009) *Helicobacter pylori* induces the release of alpha-defensin by human granulocytes. Inflamm Res. 58: 241-7.
9. Cardot-Martin, E. *et al.* (2015) α-Defensins partially protect human neutrophils against Panton-Valentine leukocidin produced by *Staphylococcus aureus*. Lett Appl Microbiol. 61 (2): 158-64.

Further Reading	1. Müller, C.A. *et al.* (2002) Human alpha-defensins HNPs-1, -2, and -3 in renal cell carcinoma: influences on tumor cell proliferation. Am J Pathol. 160 (4): 1311-24.
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 #10041 available at: 10041: https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos., HRP
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Rabbit Anti Mouse IgG (STAR8...)	DyLight®800
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®680, DyLight®800, 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
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