Datasheet: MCA2577

Description:	MOUSE ANTI RHIZOPUS ARRHIZUS
Specificity:	RHIZOPUS ARRHIZUS
Other names:	RHIZOPUS ORYZAE
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	WSSA-RA-1
Isotype:	IgM
Quantity:	0.25 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
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 protein digestion pre-treatment of paraffin sections e.g. See Jensen *et al.* (2000) for details.**

Target Species	Fungal
Product Form	Purified IgM - liquid
Preparation	Purified IgM prepared by ammonium sulphate precipitation from tissue culture supernatant.
Buffer Solution	Phosphate buffered saline.
Preservative Stabilisers	0.09% Sodium Azide (NaN_3)
Approx. Protein Concentrations	IgM concentration 1.0mg/ml.
Immunogen	Water-soluble somatic antigens (WSSA) from *Rhizopus arrhizus*.

Fusion Partners	Spleen cells from immunised Balb/c ABom mice were fused with cells of the X63-Ag8.653 myeloma cell line.
Specificity	**Mouse anti *Rhizopus arrhizus* antibody, clone WSSA-RA-1** recognizes *Rhizopus arrhizus* and other members of the family Mucoraceae including *Absidia corymbifera* and Rhizomucor pusillus, reacting strongly with the cytoplasm of hyphae and also possibly with the walls and septae, where present. *R. arrhizus*, an angio-invasive filamentous fungus, is one of the main causative agents of systemic bovine and human zygomycosis, a worldwide and often fatal respiratory disease. Clone WSSA-RA-1 has been successfully used in immunohistochemistry for the specific and consistent *in situ* diagnosis of systemic bovine zygomycosis, attributed to its possible binding to a highly glycosylated moiety on non-structural components. Clone WSSA-RA-1 does not bind to water-soluble somatic antigens (WSSA) of *Aspergillus spp*.
Histology Positive Control Tissue	Lymph nodes from R.arrhizus infected cattle.
Western Blotting	Mouse anti *Rhizopus arrhizus* detects a number diffuse band/s of between ~14-110kDa of *Rhizopus arrhizus* water-soluble somatic antigens (Jensen *et al.* 1996).
References	1. Jensen, H.E. *et al.* (1996) Immunohistochemical diagnosis of systemic bovine zygomycosis by murine monoclonal antibodies. Vet Pathol. 33 (2): 176-83. 2. Jensen, H.E. *et al.* (1996) Diagnosis of systemic mycoses by specific immunohistochemical tests. APMIS. 104 (4): 241-58. 3. Jensen, H.E. *et al.* (1997) The use of immunohistochemistry to improve sensitivity and specificity in the diagnosis of systemic mycoses in patients with haematological malignancies. J Pathol. 181 (1): 100-5. 4. Jensen, H.E. *et al.* (1996) Development of murine monoclonal antibodies for the immunohistochemical diagnosis of systemic bovine aspergillosis. J Vet Diagn Invest. 8 (1): 68-75. 5. Arendrup, M.C. *et al.* (2009) Breakthrough *Aspergillus fumigatus* and *Candida albicans* double infection during caspofungin treatment: laboratory characteristics and implication for susceptibility testing. Antimicrob Agents Chemother. 53: 1185-93. 6. Yasuda, M. *et al* (2012) A case of intestinal mucormycosis in a common marmoset (*Callithrix jacchus*). J Vet Med Sci. 74: 357-9. 7. Galiza G.J.N. *et al.* (2014) Usage of three immunohistochemical methods in the detection of aspergillosis and zygomycosis in animals. Pesquisa Veterinária Brasileira. 34 (7): 637-642. 8. Suzuta F *et al.* (2015) Variations in the morphology of *Rhizomucor pusillus* in granulomatous lesions of a Magellanic penguin (*Spheniscus magellanicus*). J Vet Med Sci. 77 (8): 1029-31. 9. Nishimura, M. *et al.* (2014) Zygomycotic mediastinal lymphadenitis in beef cattle with ruminal tympany. J Vet Med Sci. 76 (1): 123-7. 10. Ogasawara, F. *et al.* (2016) Concurrent Fowlpox and Candidiasis Diseases in Backyard Chickens with Unusual Pox Lesions in the Bursa of Fabricius. Avian Dis. 60 (3): 705-8.
Storage	Store at +4^{o}C or at -20^{o}C if preferred. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
Shelf Life	18 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 IgM (STAR86...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos., HRP
Goat Anti Mouse IgM (STAR138...)	Alk. Phos.
Human Anti Mouse IgM (HCA040...)	FITC, HRP

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