Datasheet: MCA2577

BATCH NUMBER 170385

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*.
RRID	AB_1102839
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.* (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. 2. 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. 3. Yasuda, M. *et al* (2012) A case of intestinal mucormycosis in a common marmoset (*Callithrix jacchus*). J Vet Med Sci. 74: 357-9. 4. Nishimura, M. *et al.* (2014) Zygomycotic mediastinal lymphadenitis in beef cattle with ruminal tympany. J Vet Med Sci. 76 (1): 123-7. 5. 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): 637-42. 6. 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.

7. 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.
8. Haridy, M. *et al.* (2018) *Candida parapsilosis.* and *Candida tropicalis.* infections in an Okhotsk snailfish (*Liparis ochotensis.*). J Vet Med Sci. 80 (11): 1676-1680.
9. Alves, R.C. *et al.* (2020) Systemic and Gastrohepatic Mucormycosis in Dogs. J Comp Pathol. 175: 90-94.

Further Reading	1. Jensen, H.E. *et al.* (1996) Diagnosis of systemic mycoses by specific immunohistochemical tests. APMIS. 104 (4): 241-58.
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	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA2577
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgM (STAR138...)	Alk. Phos.
Goat Anti Mouse IgG IgA IgM (STAR87...)	HRP

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M418918:230427'

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