

Datasheet: MCA4746

Description:	MOUSE ANTI RHODOPSIN
Specificity:	RHODOPSIN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	1D4
Isotype:	IgG1
Quantity:	0.1 ml

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	▪			1/100
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting	▪			1/1000
Immunofluorescence	▪			
Functional Assays			▪	

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.

Target Species

Bovine

Species Cross Reactivity

Based on sequence similarity, is expected to react with: Mammals, Amphibia
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

Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

Buffer Solution	10mM HEPES pH7.5, 150mM NaCl
Preservative	0.09% Sodium Azide (NaN ₃)
Stabilisers	0.01% Bovine Serum Albumin 50% Glycerol
Immunogen	Bovine rhodopsin.
External Database Links	<p>UniProt: P02699 Related reagents</p> <p>Entrez Gene: 509933 RHO Related reagents</p>
RRID	AB_1833784
Specificity	<p>Mouse anti Rhodopsin antibody, clone 1D4 recognizes the sequence TETSQVAPA corresponding to aa 340 to 348 of bovine rhodopsin, a pigment of the retina responsible for the formation of photoreceptor cells and the first events in the perception of light. Rhodopsin consists of the protein opsin and a reversibly bound cofactor, retinal, a photoreactive chromophore. Upon light absorption the 11-cis-retinal is isomerised to all-trans retinal, leading to a change in the shape of rhodopsin. The change activates the associated G protein and triggers a second messenger cascade, eventually resulting in the transmission of a nerve impulse to the brain. The trans-retinal is released and converted back into 11-cis-retinal for re-entry into the cycle.</p> <p>Defects in the gene cause various retinopathies such as retinitis pigmentosa and X-linked congenital stationary night blindness.</p>
Histology Positive Control Tissue	Mouse retina
References	<ol style="list-style-type: none"> Molday, R. S. <i>et al.</i> (1983) Monoclonal antibodies to rhodopsin: characterization, cross-reactivity, and application as structural probes. Biochemistry 22: 653-60 MacKenzie, D. <i>et al.</i> (1984) Localization of binding sites for carboxyl terminal specific anti-rhodopsin monoclonal antibodies using synthetic peptides. Biochemistry 23: 6544-9 Molday, R. S. <i>et al.</i> (1987) Peripherin. A rim-specific membrane protein of rod outer segment discs. Invest Ophthalmol Vis Sci. 28: 50-61 Hodges, R. S. <i>et al.</i> (1988) Synthetic peptides define linear antigenic determinants recognized by monoclonal antibodies directed to the cytoplasmic carboxyl terminus of rhodopsin. J Biol Chem 263: 11768-75 Molday, L. <i>et al.</i> (1990) The cGMP-gated cation channel of bovine rod photoreceptor cells is associated with a 240-kDa protein exhibiting immunochemical cross-reactivity with spectrin. J Biol Chem. 265:18690-5.
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
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Health And Safety Information	Material Safety Datasheet documentation #10088 available at: 10088: https://www.bio-rad-antibodies.com/uploads/MSDS/10088.pdf
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Regulatory	For research purposes only
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Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Rabbit Anti Mouse IgG (STAR8...)	DyLight@800
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight@488 , DyLight@550 , DyLight@650 , 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 Email: antibody_sales_de@bio-rad.com
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)

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