

## Datasheet: MCA4746

<b>Description:</b>	MOUSE ANTI RHODOPSIN
<b>Specificity:</b>	RHODOPSIN
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	1D4
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://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

<b>Buffer Solution</b>	10mM HEPES pH7.5, 150mM NaCl
<b>Preservative</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Stabilisers</b>	0.01% Bovine Serum Albumin 50% Glycerol
<b>Immunogen</b>	Bovine rhodopsin.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P02699</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">509933</a> RHO    <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_1833784
<b>Specificity</b>	<p><b>Mouse anti Rhodopsin antibody, clone 1D4</b> 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>
<b>Histology Positive Control Tissue</b>	Mouse retina
<b>References</b>	<ol style="list-style-type: none"> <li>Molday, R. S. <i>et al.</i> (1983) Monoclonal antibodies to rhodopsin: characterization, cross-reactivity, and application as structural probes. <a href="#">Biochemistry 22: 653-60</a></li> <li>MacKenzie, D. <i>et al.</i> (1984) Localization of binding sites for carboxyl terminal specific anti-rhodopsin monoclonal antibodies using synthetic peptides. <a href="#">Biochemistry 23: 6544-9</a></li> <li>Molday, R. S. <i>et al.</i> (1987) Peripherin. A rim-specific membrane protein of rod outer segment discs. <a href="#">Invest Ophthalmol Vis Sci. 28: 50-61</a></li> <li>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. <a href="#">J Biol Chem 263: 11768-75</a></li> <li>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. <a href="#">J Biol Chem. 265:18690-5.</a></li> </ol>
<b>Storage</b>	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.

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<b>Guarantee</b>	12 months from date of despatch
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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10088 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA4746">https://www.bio-rad-antibodies.com/SDS/MCA4746</a> 10088
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<b>Regulatory</b>	For research purposes only
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## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Rabbit Anti Mouse IgG (STAR8...)	<a href="#">DyLight@800</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">Alk. Phos.</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>
Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (H/L) (STAR117...)	<a href="#">Alk. Phos.</a> , <a href="#">DyLight@488</a> , <a href="#">DyLight@550</a> , <a href="#">DyLight@650</a> , <a href="#">DyLight@680</a> , <a href="#">DyLight@800</a> , <a href="#">FITC</a> , <a href="#">HRP</a>

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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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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