

## Datasheet: MCA2098G

<b>Description:</b>	MOUSE ANTI HUMAN IgG4
<b>Specificity:</b>	IgG4
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	HP6025
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.2 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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen	▪			
Immunohistology - Paraffin	▪			
ELISA	▪			
Immunoprecipitation			▪	
Western Blotting	▪			
Immunoblotting	▪			

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.

<b>Target Species</b>	Human
<b>Species Cross Reactivity</b>	Reacts with: Chimpanzee <b>N.B.</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.
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Antibody purified from ascites
<b>Buffer Solution</b>	Borate buffered saline

<b>Preservative Stabilisers</b>	<0.1% sodium azide (NaN <sub>3</sub> )
<b>Approx. Protein Concentrations</b>	IgG concentration 0.5mg/ml
<b>Immunogen</b>	Purified IgG4
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P01861</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">3503</a>    IGHG4    <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_323685
<b>Fusion Partners</b>	Spleen cells from BALB/c mice were fused with SP2/0 - Ag14 mouse myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Human IgG4 antibody, clone HP6025</b> recognizes the heavy chain of human IgG4, at an epitope in the Fc region. No cross-reactivity is observed with IgG1, IgG2, IgG3, IgM, IgA (<a href="#">Jefferis et al. 1985</a>).</p> <p>Elevated levels of IgG4 and of IgG4 presenting plasma cells are frequently seen in patients with autoimmune pancreatitis (IAP) and inflammatory bowel disease (<a href="#">Navaneethan et al. 2011</a>) and it is suggested that IAP may develop as a paraneoplastic syndrome in some cancer patients (<a href="#">Shiokawa et al. 2013</a>)</p>
<b>References</b>	<ol style="list-style-type: none"> <li>1. Jefferis, R. <i>et al.</i> (1985) Evaluation of monoclonal antibodies having specificity for human IgG sub-classes: results of an IUIS/WHO collaborative study. <a href="#">Immunol Lett. 10 (3-4): 223-52.</a></li> <li>2. Black, C.M. <i>et al.</i> (1991) Human markers for IgG2 and IgG4 appear to be on the same molecule in the chimpanzee. <a href="#">Immunology.72: 94-8.</a></li> <li>3. Yamashita, K. <i>et al.</i> (2008) Degree of IgG4+ plasma cell infiltration in retroperitoneal fibrosis with or without multifocal fibrosclerosis <a href="#">Histopathology. 52: 404-9.</a></li> <li>4. Yamashita, K. <i>et al.</i> (2008) Lung involvement in IgG4-related lymphoplasmacytic vasculitis and interstitial fibrosis: report of 3 cases and review of the literature. <a href="#">Am J Surg Pathol. 32: 1620-6.</a></li> <li>5. Miyagawa-Hayashino, A. <i>et al.</i> (2009) High ratio of IgG4-positive plasma cell infiltration in cutaneous plasmacytosis--is this a cutaneous manifestation of IgG4-related disease? <a href="#">Hum Pathol. 40: 1269-77.</a></li> <li>6. Fernandez-Becerra, C. (2010) Naturally-acquired humoral immune responses against the N- and C-termini of the <i>Plasmodium vivax</i> MSP1 protein in endemic regions of Brazil and Papua New Guinea using a multiplex assay. <a href="#">Malar J. 9: 29.</a></li> <li>7. Agaimy, A. <i>et al.</i> (2010) Calcifying fibrous tumor of the stomach: clinicopathologic and molecular study of seven cases with literature review and reappraisal of histogenesis. <a href="#">Am J Surg Pathol. 34: 271-8.</a></li> <li>8. Navaneethan, U. <i>et al.</i> (2011) Tissue infiltration of IgG4+ plasma cells in symptomatic</li> </ol>

patients with ileal pouch-anal anastomosis [J Crohns Colitis. 5: 570-6.](#)

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11. Whelan, S.F. *et al.* (2013) Distinct characteristics of antibody responses against factor VIII in healthy individuals and in different cohorts of hemophilia A patients. [Blood. 121: 1039-48.](#)

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16. Pan, Q. *et al.* (2016) Association between IgG4 Autoantibody and Complement Abnormalities in Systemic Lupus Erythematosus. [Mediators Inflamm. 2016: 2196986.](#)

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19. Derakhshandeh, R. *et al.* (2021) Single Institutional Experience on Orbital Inflammatory Pseudotumor: Diagnostic and Management Challenge. [Balkan Med J. 38 \(4\): 239-43.](#)

20. Agaimy, A. *et al.* (2023) Paravertebral fibrous pseudotumor: Four cases of a distinctive tumefactive lesion overlapping with eosinophilic angiocentric fibrosis and tumoral erythema elevatum diutinum. [Ann Diagn Pathol. 62: 152073.](#)

<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.
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10077 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2098G">https://www.bio-rad-antibodies.com/SDS/MCA2098G</a> 10077
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">Alk. Phos.</a> , <a href="#">HRP</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</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>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</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://bio-rad-antibodies.com/datasheets)  
'M412850:221116'

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