

## 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 antibody 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 antibody for use in their own system using appropriate negative/positive controls.

### Target Species

Human

### Species Cross Reactivity

Reacts with: Chimpanzee

**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

### Buffer Solution

Borate buffered saline

### Preservative Stabilisers

0.09% Sodium Azide

<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. 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>3. Strehl, J.D. <i>et al.</i> (2011) Numerous IgG4-positive plasma cells are ubiquitous in diverse localised non-specific chronic inflammatory conditions and need to be distinguished from IgG4-related systemic disorders. <a href="#">J Clin Pathol. 64 (3): 237-43.</a></li> <li>4. 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>5. 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>6. Lee, H.W. <i>et al.</i> (2008) High levels of antibodies to <i>Plasmodium falciparum</i> liver stage antigen-1 in naturally infected individuals in Myanmar. <a href="#">Korean J Parasitol. 46: 195-8.</a></li> <li>7. Shiokawa, M. <i>et al.</i> (2013) Risk of cancer in patients with autoimmune pancreatitis. <a href="#">Am J Gastroenterol. 108 (4): 610-7.</a></li> <li>8. Whelan, S.F. <i>et al.</i> (2013) Distinct characteristics of antibody responses against factor VIII in healthy individuals and in different cohorts of hemophilia A patients. <a href="#">Blood. 121: 1039-48.</a></li> <li>9. Fujimoto, M. <i>et al.</i> (2013) Stromal plasma cells expressing immunoglobulin G4 subclass in non-small cell lung cancer. <a href="#">Hum Pathol. 44 (8): 1569-76.</a></li> </ol>

10. Miyagawa-Hayashino, A. *et al.* (2009) High ratio of IgG4-positive plasma cell infiltration in cutaneous plasmacytosis--is this a cutaneous manifestation of IgG4-related disease? [Hum Pathol. 40: 1269-77.](#)
11. Yamashita, K. *et al.* (2008) Lung involvement in IgG4-related lymphoplasmacytic vasculitis and interstitial fibrosis: report of 3 cases and review of the literature. [Am J Surg Pathol. 32: 1620-6.](#)
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13. Navaneethan, U. *et al.* (2011) Tissue infiltration of IgG4+ plasma cells in symptomatic patients with ileal pouch-anal anastomosis [J Crohns Colitis. 5: 570-6.](#)
14. Shiokawa, M. *et al.* (2013) Risk of cancer in patients with autoimmune pancreatitis. [Am J Gastroenterol. 108 \(4\): 610-7.](#)
15. Engelmann, R. *et al.* (2015) Bone resorption correlates with the frequency of CD5+ B cells in the blood of patients with rheumatoid arthritis. [Rheumatology \(Oxford\). 54 \(3\): 545-53.](#)
16. Ráty, S. *et al.* (2015) Tumor-like Chronic Pancreatitis Is Often Autoimmune Pancreatitis. [Anticancer Res. 35 \(11\): 6163-6.](#)
17. Agaimy, A. *et al.* (2015) SMARCA4-deficient undifferentiated carcinoma of the ovary (small cell carcinoma, hypercalcemic type): clinicopathologic and immunohistochemical study of 3 cases. [Ann Diagn Pathol. 19 \(5\): 283-7.](#)
18. Riedemann, N.C. *et al.* (2017) Controlling the anaphylatoxin C5a in diseases requires a specifically targeted inhibition. [Clin Immunol. 180: 25-32.](#)
19. Pan, Q. *et al.* (2016) Association between IgG4 Autoantibody and Complement Abnormalities in Systemic Lupus Erythematosus. [Mediators Inflamm. 2016: 2196986.](#)

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**Storage**

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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**Guarantee**

12 months from date of despatch

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**Health And Safety Information**

Material Safety Datasheet documentation #10077 available at:  
10077: <https://www.bio-rad-antibodies.com/uploads/MSDS/10077.pdf>

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**Regulatory**

For research purposes only

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## Related Products

### Recommended Secondary Antibodies

- Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
- Goat Anti Mouse IgG (STAR77...) [HRP](#)
- Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
- Rabbit Anti Mouse IgG (STAR8...) [DyLight®800](#)

Rabbit Anti Mouse IgG (STAR13...) [HRP](#)  
Goat Anti Mouse IgG (STAR76...) [RPE](#)  
Goat Anti Mouse IgG (STAR70...) [FITC](#)  
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)  
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)  
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [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](mailto:antibody_sales_us@bio-rad.com)

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