

Datasheet: MCA2098P

BATCH NUMBER 158892

Description:	MOUSE ANTI HUMAN IgG4:HRP
Specificity:	IgG4
Format:	HRP
Product Type:	Monoclonal Antibody
Clone:	HP6025
Isotype:	IgG1
Quantity:	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.

	Yes	No	Not Determined	Suggested Dilution
Immunohistology - Frozen	▪			1/40 - 1/80
Immunohistology - Paraffin	▪			
ELISA	▪			1/1000 - 1/20000
Western Blotting			▪	

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 conjugated to Horseradish Peroxidase (HRP) - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A
Buffer Solution	Phosphate buffered saline

Preservative Stabilisers	0.01% Thiomersal
Approx. Protein Concentrations	IgG concentration 1 mg/ml
Immunogen	Purified IgG4
External Database Links	UniProt: P01861 Related reagents Entrez Gene: 3503 IGHG4 Related reagents
RRID	AB_323679
Fusion Partners	Spleen cells from BALB/c mice were fused with SP2/0 - Ag14 mouse myeloma cell line.
Specificity	Mouse anti Human IgG4 antibody, clone HP6025 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 (Jefferis et al. 1985). Elevated levels of IgG4 and of IgG4 presenting plasma cells are frequently seen in patients with autoimmune pancreatitis (IAP) and inflammatory bowel disease (Navaneethan et al. 2011) and it is suggested that IAP may develop as a paraneoplastic syndrome in some cancer patients (Shiokawa et al. 2013)
Histology Positive Control Tissue	Tonsil
References	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. Immunol Lett. 10 (3-4): 223-52. 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. Am J Surg Pathol. 34: 271-8. 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. J Clin Pathol. 64 (3): 237-43. 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. Immunology. 72: 94-8. 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. Malar J. 9: 29. 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. Korean J Parasitol. 46: 195-8. 7. Shiokawa, M. <i>et al.</i> (2013) Risk of cancer in patients with autoimmune pancreatitis. Am J Gastroenterol. 108 (4): 610-7.

8. 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.](#)
9. Fujimoto, M. *et al.* (2013) Stromal plasma cells expressing immunoglobulin G4 subclass in non-small cell lung cancer. [Hum Pathol. 44 \(8\): 1569-76.](#)
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.](#)
12. Yamashita, K. *et al.* (2008) Degree of IgG4+ plasma cell infiltration in retroperitoneal fibrosis with or without multifocal fibrosclerosis [Histopathology. 52: 404-9.](#)
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.](#)
20. Engelmann, R. *et al.* (2018) Decreased IgG4 ACPA levels in responders and increased CD1c⁺ classical dendritic cells in non-responders of patients with rheumatoid arthritis under therapy. [Clin Rheumatol. 37 \(7\): 1783-90.](#)
21. Derakhshandeh, R. *et al.* (2021) Single Institutional Experience on Orbital Inflammatory Pseudotumor: Diagnostic and Management Challenge. [Balkan Med J. 38 \(4\): 239-43.](#)

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.
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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 #10094 available at: https://www.bio-rad-antibodies.com/SDS/MCA2098P
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Related Products

Recommended Useful Reagents

[AbGUARD® HRP STABILIZER PLUS \(BUF052A\)](#)

[AbGUARD® HRP STABILIZER PLUS \(BUF052B\)](#)

[AbGUARD® HRP STABILIZER PLUS \(BUF052C\)](#)

[TMB CORE \(BUF056A\)](#)

[TMB CORE+ \(BUF062A\)](#)

[TMB SIGNAL+ \(BUF054A\)](#)

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

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