Datasheet: MCA2098G

BATCH NUMBER 166206

Description:	MOUSE ANTI HUMAN IgG4
Specificity:	IgG4
Format:	Purified
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
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.

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

Preparation

Antibody purified from ascites

Buffer Solution	Borate buffered saline
Preservative Stabilisers	<0.1% sodium azide (NaN_3)
Approx. Protein Concentrations	IgG concentration 0.5mg/ml
Immunogen	Purified IgG4
External Database Links	**UniProt:** P01861 Related reagents **Entrez Gene:** 3503 IGHG4 Related reagents
RRID	AB_323685
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)
References	1. Jefferis, R. *et al.* (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. Black, C.M. *et al.* (1991) Human markers for IgG2 and IgG4 appear to be on the same molecule in the chimpanzee. Immunology.72: 94-8. 3. Yamashita, K. *et al.* (2008) Degree of IgG4+ plasma cell infiltration in retroperitoneal fibrosis with or without multifocal fibrosclerosis Histopathology. 52: 404-9. 4. 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. 5. 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. 6. Fernandez-Becerra, C. (2010) Naturally-acquired humoral immune responses against the N- and C-termini of the *Plasmodium vivax* MSP1 protein in endemic regions of Brazil and Papua New Guinea using a multiplex assay. Malar J. 9: 29. 7. Agaimy, A. *et al.* (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.

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9. Strehl, J.D. *et al.* (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.
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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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14. Ráty, S. *et al.* (2015) Tumor-like Chronic Pancreatitis Is Often Autoimmune Pancreatitis. Anticancer Res. 35 (11): 6163-6.
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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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18. 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.
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.

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
Health And Safety Information	Material Safety Datasheet documentation #10077 available at: https://www.bio-rad-antibodies.com/SDS/MCA2098G 10077
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos., HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®550, DyLight®650, DyLight®680, DyLight®800, FITC, HRP
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC

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

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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