Datasheet: MCA2098P

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 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 conjugated to horseradish peroxidase (HRP) - liquid

Preparation

Purified IgG prepared by affinity chromatography on Protein A from ascites

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. *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. 8. 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.
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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13. 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.
14. Ráty, S. *et al.* (2015) Tumor-like Chronic Pancreatitis Is Often Autoimmune Pancreatitis. Anticancer Res. 35 (11): 6163-6.
15. 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.
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 #10094 available at: https://www.bio-rad-antibodies.com/SDS/MCA2098P 10094
Regulatory	For research purposes only

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)

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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

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