

IgG4 (EP138)


Rabbit anti-human IgG4 Monoclonal Antibody (Clone EP138)

REFERENCES AND PRESENTATIONS¹

- **ready-to-use** (manual or LabVision AutoStainer)
MAD-000696QD-3
MAD-000696QD-7
MAD-000696QD-12
- **Ready-to-use (MD-Stainer)²**
MAD-000696QD-3/V
MAD-000696QD/V
- **concentrated**
MAD-000696Q - 1:50 recommended dilution

COMPOSITION

Anti-human IgG4 rabbit monoclonal antibody purified from serum and prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide

INTENDED USE  Immunohistochemistry (IHC) on paraffin embedded tissues. Not tested on frozen tissues or Western-Blotting

CLONE: EP138³

Ig ISOTYPE: Rabbit IgG

IMMUNOGEN: A synthetic peptide corresponding to residues in the hinge region of Human IgG4. It does not cross-react with IgG1, IgG2, or IgG3.

SPECIES REACTIVITY: In vitro diagnostics in humans. Not tested in other species

DESCRIPTION AND APPLICATIONS: Human IgG4, one of four subclasses of IgG, contains a gamma 4 heavy chain and a hinge region that is shorter than that of IgG1. No allotypes have been detected on the heavy chains of IgG4. Its two primary effector functions are activating complements and binding to the FcγR of effector cells to initiate phagocytosis.

Human IgG4 accounts for less than 6% of the total IgG serum level.

Recent studies show that serum levels and immunohistochemistry staining with IgG4 antibody is a useful diagnosis marker for IgG4-related sclerosing diseases. A new concept of IgG4-related systemic



disease (ISD) has been established recently. The ISD is characterized by elevated serum IgG4 levels and extensive IgG4+ plasma cell infiltrate in pancreas and/or in other organs, including peripancreatic tissue, bile duct, gallbladder, portal area of the liver, gastric mucosa, colonic mucosa, salivary glands, lymph nodes, and bone marrow. Immunohistochemistry analysis of IgG4 is useful for identifying ISD.

IHC POSITIVE CONTROL: Tonsil

VISUALIZATION: Cell cytoplasm

IHC RECOMMENDED PROCEDURE:

- 4µm thick section should be taken on charged slides; dry overnight at 60°C
- Deparaffinise, rehydrate and HIER (heat induced epitope retrieval) – boil tissue in the Pt Module using Vitro S.A EDTA buffer pH8⁴ for 20 min at 95°C. Upon completion rinse with 3-5 changes of distilled or deionised water followed by cooling at RT for 20 min
- Endogenous peroxidase block - Blocking for 10 minutes at room temperature using peroxidase solution (ref. MAD-021540Q-125)
- Primary antibody: incubate for 10 minutes [The antibody dilution (when concentrated) and protocol may vary depending on the specimen preparation and specific application. Optimal conditions should be determined by the individual laboratory]
- For detection use Master Polymer Plus Detection System (HRP) (DAB included; ref. MAD-000237QK)
- Counterstaining with haematoxylin and final mounting of the slide

STORAGE AND STABILITY:  Stored at 2-8°C. Do not freeze.  Once the packaging has been opened it can be stored until the expiration date of the reagent indicated on the label. If the reagent has been stored under other conditions to those indicated in this document, the user must first check its correct performance taking into account the product warranty is no longer valid.

WARNINGS AND PRECAUTIONS:

1. Avoid contact of reagents with eyes and mucous membranes. If reagents come into contact with sensitive areas, wash with copious amounts of water.

¹ These references are for presentation in vials of Low Density Polyethylene (LDPE) dropper. In case the products are used in automated stainers, a special reference is assigned as follows:

- / L: Cylindrical screw-cap vials (QD-3 / L, QD-7 / L, QD-12 / L).

- / N: Polygonal screw-cap vials (QD-3 / N, QD-7 / N, QD-12 / N).

For different presentations (references / volumes) please contact the supplier.

² For Technical specifications for MD-Stainer, please contact your distributor.

³ IgG4 clone EP138 is manufactured using Eptomics's RabMAb® technology under U.S. Patent Nos. 5,675,063 and 7,402,409

⁴ Ref: MAD-004072R/D



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2. This product is harmful if swallowed.
3. Consult local or state authorities with regard to recommended method of disposal.
4. Avoid microbial contamination of reagents.

SAFETY RECOMMENDATIONS










This product is intended for laboratory professional use only. The product is NOT intended to be used as a drug or for domestic purposes. The current version of the Safety Data Sheet for this product can be downloaded by searching the reference number at www.vitro.bio or can be requested at regulatory@vitro.bio.

BIBLIOGRAPHY

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3. Morselli-Labate AM, Pezzilli R. Usefulness of serum IgG4 in the diagnosis and follow up of autoimmune pancreatitis: A systematic literature review and meta-analysis. J Gastroenterol Hepatol; 24(1): 15-36. 2009.
4. Dhall D, Suriawinata AA, Tang LH, Shia J, Klimstra DS. Use of immunohistochemistry for IgG4 in the distinction of autoimmune pancreatitis from peritumoral pancreatitis. Hum Pathol. 2010;41:643-652.
5. M. Tripathi, H S Mudhar, R Start, M S Fernando. IgG4-related disease – a modern mimic of malignancy, Diag Histopat. 2010; 16:484-485.
6. Zen Y, Ishikawa A, Ogiso S, Heaton N, Portmann B. Follicular cholangitis and pancreatitis - clinicopathological features and differential diagnosis of an under-recognized entity. Histopathology. 2012;60:261-269
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8. Abe H, Morikawa T, Araki A, Shima T, Nakatsu H, Fukayama M, Suzuki Y. IgG4-related periureteral fibrosis presenting as a unilateral ureteral mass. Pathol Res Pract. 2011;207:712-714
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LABEL AND BOX SYMBOLS

Explanation of the symbols of the product label and box:

	Expiration date
	Temperature limit
	Manufacturer
	Sufficient content for <n> assays
	Catalog number
	Lot code
	Refer to the instructions of use
	Medical product for <i>in vitro</i> diagnosis.
	Material safety data sheet



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