Description	**Tetramethylrhodamine isothiocyanate-conjugated purified monoclonal mouse antibody to human IgG4, subclass specific**
Product code	MAHu/IgG4/TRITC
Biological origin	Mouse, clone NI 315 (HP 6206)
Mouse isotype	IgG1κ
Physical form	Purified monoclonal mouse IgG1κ conjugated with TRITC, lyophilized from a solution in phosphate buffered saline (pH7.2).
Preservative	No preservative added, as it may interfere with the antibody activity. No foreign protein added.
Immunogen	Highly purified monoclonal IgG4 isolated from human serum.
Identity & Specificity	The reactivity of the antiserum is restricted to a subclass specific determinant on the pFc part of the IgG4 molecule as tested in direct binding enzyme immunoassay, immunoblotting, immunoprecipitation and direct immunoperoxidase staining of cytoplasmic Ig.
Cross-reactivity	The antiserum does not react with any other component of the human Ig system or any other human plasma protein as tested. This antiserum has not been tested for cross-reactivity with other species.
Physicochemical characteristics	IgG concentration is 0.4 mg/ml. Fluorochrome/IgG protein molar ratio (F/P) approximately 2.7. No foreign proteins added.
Fluorescent marker	Tetramethylrhodamine isothiocyanate isomer R. It has an orange-red fluorescence. Excitation: 554 nm, emission: 573 nm. To avoid nonspecific background staining, specially synthesized and exceptionally pure crystalline isomer R has been used instead of the usual racemic mixture. Although its fluorescence efficiency is less than of FITC, TRITC conjugates have the advantage of significantly less photo bleaching.
Conjugation procedure	A proprietary technique for the binding to TRITC is used, followed by several purification steps to remove free reactants and protein aggregates. After each step activity and specificity are tested in a variety of techniques. The conjugate is lyophilized to assure stability and long shelf life.
Intended use	To identify the presence of IgG4 in human serum, other body fluids, cell and tissue substrates and to determine its concentration in techniques as ELISA, indirect immunoperoxidase staining of cytoplasmic IgG4, and immunoblotting using a peroxidase labelled monoclonal antibody against TRITC. The optimum working dilution is an assay-related characteristic. It may vary widely and should always be determined by titration. For histochemical use optimum dilutions are mostly from 1:10 to 1:50; in ELISA from 1:200 upwards; in Western blotting from 1:400 upwards. Working dilutions may vary widely, strongly depending on the test conditions. These data should be interpreted as general recommendations only.
Handling	The lyophilized product is shipped at ambient temperature and may be stored at +4°C; prolonged storage at or below -20°C. Reconstitute the lyophilized product by adding 0.5 ml sterile distilled water. Dilutions may be prepared by adding phosphate buffered saline (PBS, pH 7.2). Avoid repeated thawing and freezing. If a slight precipitation occurs upon storage, this should be removed by centrifugation and will not affect the performance of the product. Diluted solutions should be stored at +4ºC, not refrozen, and preferably used the same day.
Packing	Vial with 0.5 ml lyophilized immunoconjugate.
Storage / shelf life	Lyophilized at +4ºC — at least 10 years reconstituted at or below -20°C — 3-5 years reconstituted at +4°C — 7 days
Caution	This immunoconjugate should be handled by qualified persons only and appropriate precautions should be taken in its handling and disposal, and of all associated materials. For *in vitro* research purposes only.
Reference	Evaluation of monoclonal antibodies having specificity for human IgG subclasses: Results of an IUIS/WHO collaborative study. Immunology Letters **10** (1985), 223-252. Jefferis R, Reimer C B, Skavril F, de Lange G, Ling N R, Lowe L, Walker M R, Philips D J, Aloisio C H, Wells T W, Vaerman J, Magnusson C G, Kubagawa H, Cooper M, Vartdal F, Vandvik B, Haaijman J J, Makela O, Sarnesto A, Lando Z, Gergely J, Rainavölgyi E, László G, Radl J and Molinaro G A.

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