Description	**Fluorescein isothiocyanate-conjugated IgG fraction of polyclonal goat antiserum to rat IgG1, subclass specific**
Product code	GARa/IgG1/FITC
Biological origin	Goat
Physical form	Fluorochrome-coupled purified hyperimmune goat IgG lyophilized from a solution in phosphate buffered saline (PBS, pH 7.2).
Preservative	No preservative added, as it may interfere with the antibody activity.
Immunogen	Pools of highly purified homogenous IgG1 isolated from rat serum. Freund's complete adjuvant is used in the first step of the immunization procedure.
Purification	Hyperimmune antisera with strong precipitating activity are selected for fractionation by salt-precipitation and purification of the IgG fraction by DEAE-chromatography.
Adsorption	Undesired traces of antibody activity are eliminated by immunoaffinity chromatography as required.
Identity & Specificity	The reactivity of the antiserum is directed to the subclass IgG1 as tested against rat sera and a panel of purified homogenous immunoglobulins. It does not react with other subclasses of IgG, IgG/Fab fragments, IgM and IgA or any non-Ig protein in rat serum, as tested by immunoelectrophoresis and double radial immunodiffusion. Further tested on the level of sensitivity of direct and indirect immunofluorescence staining methods applied to lymphoid cells. When used on vital peripheral blood cells this immunoconjugate does not react with Fc receptors present on cell surface membranes.
Cross-reactivity	Inter-species cross-reactivity is a normal feature of antibodies to immunoglobulins, since Ig of different species frequently share antigenic determinants. Cross-reactivity of this product has not been tested in detail, however in double radial immunodiffusion a weak reaction with mouse has been observed.
Physicochemical characteristics	IgG protein concentration 10 mg/ml. Fluorochrome/IgG protein molar ratio (F/P) is approximately 1.8. No foreign proteins added.
Fluorescent marker	Fluorescein isothiocyanate isomer 1. Excitation: 492 nm, emission: 515 nm.
Conjugation procedure	A proprietary technique for the binding to FITC 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 and measure IgG1, antigen or antibody, at the cellular and subcellular level by immuno-fluorescence staining of appropriately treated cell and tissue substrates, and to demonstrate circulating antibodies in serodiagnostic microbiology and autoimmune diseases; to identify a specific antigen or immune complex using a reference antibody of rat origin in the middle layer of the indirect test procedure. *This immunoconjugate is not pre-diluted. The optimum working dilution of each conjugate should be established by titration before being used. Excess labelled antibody must be avoided because it may cause high unspecific background staining and interfere with the specific signal.* Working dilutions are usually between 1:20 and 1:80.
Handling	The lyophilized conjugate is shipped at ambient temperature and may be stored at +4°C; prolonged storage at or below -20°C. It is reconstituted by adding 1 ml sterile distilled water, spun down to remove insoluble particles, divided into small aliquots, frozen and stored at or below -20°C. Prior to use, an aliquot is thawed slowly in the dark at ambient temperature, spun down again and used to prepare working dilutions by adding sterile phosphate buffered saline (PBS, pH 7.2). Repeated thawing and freezing should be avoided. Working dilutions should be stored at +4°C, not refrozen, and preferably used the same day. If a slight precipitation occurs upon storage, this should be removed by centrifugation. It will not affect the performance of the immunoconjugate.
Packing	Vial with 1 ml lyophilized immunoconjugate.
Storage / shelf life	Lyophilized at +4°C — 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* laboratory research purposes only.

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