Description	**Biotin-conjugated IgG fraction of polyclonal rabbit antiserum to goat IgG, heavy and light chains, adsorbed for cross-reactivity with human and mouse immunoglobulins**
Product code	R7AG/IgG(H+L)/Bio
Biological origin	Rabbit
Physical form	Biotin-coupled purified hyperimmune rabbit IgG lyophilized from a solution in phosphate buffered saline (PBS, pH 7.2).
Preservative	No preservative added.
Immunogen	Purified normal IgG isolated from pooled goat 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	Immunoaffinity adsorbed using to eliminate antibodies reacting with other serum proteins. The use of insolubilized adsorption antigens prevents the presence of excess adsorbent protein or immune complexes in the antiserum. This product has been passed over appropriate immunoadsorbent to remove antibodies cross-reacting with human and mouse immunoglobulins. This renders it specific for use in test systems containing material of human origin.
Identity & Specificity	The reactivity of the antiserum is directed to the Fc and Fab subunits of the IgG molecule. It includes a certain degree of reactivity with other immunoglobulins via the common Fab portion. It does not react with any non-Ig protein in goat serum, as tested by immunoelectrophoresis and double radial immunodiffusion.
Cross-reactivity	Inter-species cross-reactivity is a normal feature of antibodies to mammalian immunoglobulins, since homologous proteins of different species frequently share antigenic determinants. The degree of cross-reactivity is also dependent on the concentrations of the reactants and the sensitivity of the assay arrangement. If the product is to be used in the presence of material originating from an other species than human and mouse, prior screening for cross-reactivity with that material is essential and additional adsorption of the reagent may be required to ensure intra-assay specificity.
Physicochemical characteristics	IgG protein concentration 10 mg/ml. Biotin/IgG protein molar ratio (B/P) is approximately 6.1. No foreign proteins added.
Marker	N-Hydroxysuccinimidobiotin.
Conjugation procedure	A proprietary technique for the binding to biotin is used, followed by several purification steps. 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	In immunocytochemical and immunohistochemical staining to identify and measure IgG, antigen or antibody, at the cellular and subcellular level by staining of appropriately treated cell and tissue substrates in a system containing mouse and/or human immunoglobulins, and to demonstrate circulating antibodies in serodiagnostic microbiology and autoimmune diseases; to identify a specific antigen or immune complex using a reference antibody of goat origin in the middle layer of the indirect test procedure. As a second step an avidin or streptavidin conjugate of the user's choice has to be used. *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 fro histochemical and cytochemical use are usually between 1:100 and 1:500; in ELISA and comparable non-precipitating antibody-binding assays between 1:2,000 and 1:10,000.
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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