Description **Biotin-conjugated IgG fraction of polyclonal goat antiserum to rat albumin**

Product code GARa/Alb/Bio

Biological origin Goat

Physical form 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 Albumin is a stable small polypeptide with a strong antigenicity. Its molecular weight is about 69,000. It has a high mobility in electrophoresis, shows macro-heterogeneity especially under pathological conditions and it can bind a large number of physiological and non-physiological molecules. Albumin is isolated from rat serum by sequential precipitation and purified by ion exchange chromatography and affinity chromatography. 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 (7S) fraction by DEAE-chromatography.

Adsorption Immunoaffinity adsorbed using insolubilized antigens as required, 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.

Identity & Specificity The defined antibody specificity is directed to albumin as tested against rat sera. In immunoelectrophoresis and double radial immunodiffusion (Ouchterlony), using various antiserum concentrations against appropriate concentrations of the immunogen, a single characteristic precipitin line is obtained which shows a reaction of identity with the precipitin lines obtained against rat serum and the purified albumin.

Cross-reactivity Inter-species cross-reactivity is a normal feature of antibodies to mammalian serum proteins, 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. This antiserum fraction has been tested in double radial immunodiffusion with the following results:

bovine -	goat -	human +	rabbit ±
chicken -	guinea pig ++	monkey +	sheep -
dog +	horse +	mouse ++	swine +

Physicochemical characteristics IgG protein concentration 10 mg/ml. Biotin/IgG protein molar ratio (B/P) approximately 6.4. No foreign proteins added.

Marker N-Hydroxysuccinimidobiotin

Intended use In immunocytochemical and immunohistochemical use for the detection of albumin at the cellular and subcellular level by staining of appropriately treated cell and tissue substrates; in non-isotopic assay methodology (e.g. ELISA) to measure albumin in rat serum or other body fluids. 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 for histochemical and cytochemical use are usually between 1:100 and 1:500; in ELISA and comparable non-precipitating antibody-binding assays between 1:5,000 and 1:15,000.

Handling The lyophilized immunoconjugate 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 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 product.

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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