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| **Description** | **Tetramethylrhodamine isothiocyanate–conjugated IgG fraction of polyclonal goat antiserum to monkey IgG, IgA and IgM, heavy and light chains** |
| **Product code** | GAMon/Ig/TRITC |
| **Biological origin** | Goat |
| **Physical form** | TRITC-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** | Purified immunoglobulin fractions containing IgG, IgA and IgM isolated from pooled monkey 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 insolubilized antigens as required to eliminate antibody activity with other serum protein. The use of insolubilized adsorption antigens prevents the presence of excess adsorbent protein or immune complexes in the antiserum. |
| **Identity & Specificity** | The reactivity of the antiserum is directed to the major isotypes of the monkey immunoglobulin system (classes and both light chain types) including antibodies to common determinants, to class and to the surface determinants of the common Fab portion, as tested by immunoelectrophoresis and double radial immunodiffusion against pooled serum and purified immunoglobulins. |
| **Cross-reactivity** | Inter-species cross-reactivity is a normal feature of antibodies to immunoglobulins, since Ig of different species frequently share antigenic determinants. Precipitation reactions have been observed with immunoglobulins in serum of other old-world monkeys, including Cercopithecus, Cynomolgus and Baboon. The conjugate may also react with other species as has been observed for chimpanzee and man. |
| **Physicochemical characteristics** | IgG protein concentration 10 mg/ml. Fluorochrome/IgG protein molar ratio (F/P) is approximately 1.0. 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. This facilitates their use in quantitative cell-counting procedures. |
| **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** | Direct immunofluorescence staining of cytoplasmic Ig of appropriately treated cell and tissue substrates; to demonstrate immunoglobulins or specific antibodies in cells and tissues; to identify circulating antibodies in serodiagnostic microbiology and autoimmune diseases.<br>*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.*<br>Working dilutions are usually between 1:10 and 1:40. |
| **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<br>reconstituted at or below -20°C — 3-5 years<br>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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