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| Description | Tetramethylrhodamine isothiocyanate-conjugated IgG fraction of polyclonal goat antiserum to mouse IgD Fc specific | |
| Product code | GAM/IgD(Fc)/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 | Pools of purified homogenous IgD isolated from BALB/C and C57Bl mouse 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 and purification of the IgG (7S) fraction containing the bulk of the defined antibody specificity. It is free of other serum proteins as tested by immunoelectrophoresis. | |
| Adsorption | Immunoaffinity adsorbed using insolubilized antigens as required to eliminate antibodies cross-reacting with other components of the immunoglobulin system or reacting with other serum proteins. Special attention is given to the removal of antibodies to common Ig/Fab. 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 Fc subunit of the IgD molecule, which expresses strict (class) specificity. In immunoelectrophoresis and radial in immunodiffusion using various antiserum concentrations against serum of mice belonging to different allotypic groups, a single precipitin line has been obtained which shows a reaction of identity with the precipitin lines obtained with the purified IgD of BALB/C and C57Bl origin used as immunogens. It does not react with IgG including all subclasses, IgG/Fab fragments, IgM and IgA or any non-Ig protein in mouse serum, as tested by immunoelectrophoresis and double radial immunodiffusion. The antiserum also react with membrane-bound IgD in peripheral blood cells of different mouse strains as tested by immunofluorescence microscopy. | |
| Cross-reactivity | This immunoconjugate is not species-specific since inter-species cross-reactivity is a normal feature of antisera to immunoglobulins. However this conjugate has been passed over appropriate immuno-adsorbents to remove antibodies cross-reacting with human immunoglobulins. This renders it specific for use in test systems containing material of human origin (e.g. human tissue/mouse monoclonal antibody to a human tissue constituent/anti mouse Ig isotype-specific immunoconjugate). | |
| Physicochemical characteristics | IgG protein concentration 10 mg/ml. Fluorochrome/IgG protein molar ratio (F/P) is approximately 1.7. 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. This facilitates their use in quantitative cell-counting procedures. | |
| Conjugation procedure | A proprietary technique for the binding of 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 | In immunocytochemical and immunohistochemical staining for the detection of IgD at the cellular and subcellular level by staining of appropriately treated cell and tissue substrates; to identify and measure IgD in mouse serum or other body fluids. <i>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.</i> Working dilutions are usually between 1:10 and 1:40, depending on the method used. | |
| 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 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 <i>in vitro</i> laboratory research purposes only. | |

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