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| Description | Biotin-conjugated IgG fraction of polyclonal goat antiserum to rat IgG1, subclass specific | |
| Product code | GARa/IgG1/Bio | |
| Biological origin | Goat | |
| Physical form | Biotin-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 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 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 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. | |
| Cross-reactivity | This immunoconjugate is not species-specific since inter-species cross-reactivity is a normal feature of antisera to immunoglobulins. Cross-reactivity of this product has not been tested in detail, however in double radial immunodiffusion a reaction with mouse and human has been observed. | |
| Physicochemical characteristics | IgG protein concentration 10 mg/ml. Biotin/IgG protein molar ratio (B/P) is approximately 5.1. No foreign proteins added. | |
| Marker | N-Hydroxysuccinimidobiotin. | |
| Conjugation procedure | A proprietary technique for the binding of biotin, 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 | <p>In immunocytochemical and immunohistochemical staining for the detection of IgG1 at the cellular and subcellular level of appropriately treated cell and tissue substrates; to demonstrate circulating IgG1 antibodies in serodiagnostic microbiology and autoimmune diseases; to identify a specific antigen using a reference antibody of rat origin known to be of the IgG1 isotype in the middle layer of the indirect test procedure; in non-isotopic assay methodology (e.g. ELISA) to measure IgG1 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</p> <p><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></p> <p>Working dilutions for histochemical and cytochemical use are usually between 1:100 and 1:250; in ELISA and comparable non-precipitating antibody-binding assays between 1:500 and 1:2,000 depending on the method used.</p> | |
| 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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