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|--|--|-------------------|----------|----------|-------|---------|----------|---------|-------|--------------|-----------|----------|---------|-----------|-----------|---------|-------|----------|
| <b>Description</b>                     | <b>Biotin-conjugated IgG fraction of polyclonal goat antiserum to human IgG, heavy and light chains</b>  |                   |          |          |       |         |          |         |       |              |           |          |         |           |           |         |       |          |
| <b>Product code</b>                    | GAHu/IgG(H+L)/Bio  |                   |          |          |       |         |          |         |       |              |           |          |         |           |           |         |       |          |
| <b>Biological origin</b>               | Goat   |                   |          |          |       |         |          |         |       |              |           |          |         |           |           |         |       |          |
| <b>Physical form</b>                   | Biotin-coupled purified hyperimmune goat IgG lyophilized from a solution in phosphate buffered saline (PBS, pH 7.2).   |                   |          |          |       |         |          |         |       |              |           |          |         |           |           |         |       |          |
| <b>Preservative</b>                    | No preservative added.   |                   |          |          |       |         |          |         |       |              |           |          |         |           |           |         |       |          |
| <b>Immunogen</b>                       | Purified normal IgG isolated from pooled human serum. Freund's complete adjuvant is used in the first step of the immunization procedure.  |                   |          |          |       |         |          |         |       |              |           |          |         |           |           |         |       |          |
| <b>Purification</b>                    | Hyperimmune antisera with strong precipitating activity are selected for fractionation by salt-precipitation and purification of the IgG fraction by DEAE-chromatography.  |                   |          |          |       |         |          |         |       |              |           |          |         |           |           |         |       |          |
| <b>Adsorption</b>                      | No adsorption required.  |                   |          |          |       |         |          |         |       |              |           |          |         |           |           |         |       |          |
| <b>Identity &amp; Specificity</b>      | 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 human serum, as tested by immunoelectrophoresis and double radial immunodiffusion.  |                   |          |          |       |         |          |         |       |              |           |          |         |           |           |         |       |          |
| <b>Cross-reactivity</b>                | <p>Inter-species cross-reactivity is a normal feature of antibodies to immunoglobulins, since Ig of different species frequently share antigenic determinants. This antiserum has been tested for cross-reactivity in double radial immunodiffusion with the following results:</p> <table border="0" style="margin-left: 40px;"> <tr> <td>bovine -</td> <td>dog +</td> <td>horse ±</td> <td>pigeon -</td> <td>sheep -</td> </tr> <tr> <td>cat +</td> <td>guinea pig +</td> <td>monkey ++</td> <td>rabbit +</td> <td>swine +</td> </tr> <tr> <td>chicken -</td> <td>hamster ±</td> <td>mouse ±</td> <td>rat +</td> <td>turkey -</td> </tr> </table> <p>A negative cross-reaction in double radial immunodiffusion does not exclude some reaction in more sensitive techniques.</p>   |                   |          | bovine - | dog + | horse ± | pigeon - | sheep - | cat + | guinea pig + | monkey ++ | rabbit + | swine + | chicken - | hamster ± | mouse ± | rat + | turkey - |
| bovine -                               | dog +  | horse ±           | pigeon - | sheep -  |       |         |          |         |       |              |           |          |         |           |           |         |       |          |
| cat +                                  | guinea pig +   | monkey ++         | rabbit + | swine +  |       |         |          |         |       |              |           |          |         |           |           |         |       |          |
| chicken -                              | hamster ±  | mouse ±           | rat +    | turkey - |       |         |          |         |       |              |           |          |         |           |           |         |       |          |
| <b>Physicochemical characteristics</b> | IgG protein concentration 10 mg/ml. Biotin/IgG protein molar ratio (B/P) is approximately 7.7. No foreign proteins added.  |                   |          |          |       |         |          |         |       |              |           |          |         |           |           |         |       |          |
| <b>Marker</b>                          | N-Hydroxysuccinimidobiotin.  |                   |          |          |       |         |          |         |       |              |           |          |         |           |           |         |       |          |
| <b>Conjugation procedure</b>           | 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.   |                   |          |          |       |         |          |         |       |              |           |          |         |           |           |         |       |          |
| <b>Intended use</b>                    | <p>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, and to demonstrate circulating antibodies in serodiagnostic microbiology and autoimmune diseases; to identify a specific antigen or immune complex using a reference antibody of human 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.</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 1:500; in ELISA and comparable non-precipitating antibody-binding assays between 1:1,000 and 1:5,000.</p> |                   |          |          |       |         |          |         |       |              |           |          |         |           |           |         |       |          |
| <b>Handling</b>                        | 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.   |                   |          |          |       |         |          |         |       |              |           |          |         |           |           |         |       |          |
| <b>Packing</b>                         | Vial with 1 ml lyophilized immunoconjugate.  |                   |          |          |       |         |          |         |       |              |           |          |         |           |           |         |       |          |
| <b>Storage / shelf life</b>            | Lyophilized at +4°C  | at least 10 years |          |          |       |         |          |         |       |              |           |          |         |           |           |         |       |          |
|  | reconstituted at or below -20°C  | 3-5 years         |          |          |       |         |          |         |       |              |           |          |         |           |           |         |       |          |
|  | reconstituted at +4°C  | 7 days            |          |          |       |         |          |         |       |              |           |          |         |           |           |         |       |          |
| <b>Caution</b>                         | 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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