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|-----------------------------------|--|-------------------|----------|
| <b>Description</b>                | <b>Precipitating polyclonal rat antiserum to mouse alpha-2 macroglobulin</b>   |                   |          |
| <b>Product code</b>               | RaAM/A2M   |                   |          |
| <b>Biological origin</b>          | Rat  |                   |          |
| <b>Physical form</b>              | Delipidated, heat inactivated, lyophilized, stable whole antiserum   |                   |          |
| <b>Preservative</b>               | No preservative added  |                   |          |
| <b>Immunogen</b>                  | Alpha-2 macroglobulin is the major protein in the alpha-2 region of mouse serum after separation by electrophoresis. It is a large polymer and a strong antigen. It forms about one-third in the total of the alpha-2 globulins. The protein is isolated by ammonium sulphate precipitation, ion exchange chromatography, gel filtration and preparative starch block electrophoresis. In the purification of alpha-2 macroglobulin the activation of kallikrein is avoided, since it forms an irreversible bond with alpha-2 macroglobulin, thus contaminating the final immunogen. Freund's complete adjuvant is used in the first step of the immunization procedure. |                   |          |
| <b>Adsorption</b>                 | 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.   |                   |          |
| <b>Identity &amp; Specificity</b> | The reactivity of the antiserum is restricted to alpha-2 macroglobulin as tested in immunoelectrophoresis and radial immunodiffusion. A characteristic single precipitin line is obtained with normal serum which shows a reaction of identity with the precipitin line with purified alpha-2 macroglobulin.   |                   |          |
| <b>Cross-reactivity</b>           | Inter-species cross reactivity is a normal feature of antibodies to serum proteins, since homologous proteins of different species frequently share antigenic determinants. Cross-reactivity of this antiserum has been tested in double radial immunodiffusion (Ouchterlony) with the following results:  |                   |          |
|                                   | bovine -   | ferret -          | horse -  |
|                                   | cat -  | goat -            | human -  |
|                                   | chicken -  | guinea pig -      | monkey - |
|                                   | dog -  | hamster -         | rabbit - |
| <b>Protein concentration</b>      | Total protein and IgG concentrations in the antiserum are comparable to those of pooled normal rat serum. No foreign proteins added.   |                   |          |
| <b>Antibody titre</b>             | Precipitin titre 1:8 when tested against pooled normal mouse sera of different strains in agar-block immunodiffusion titration.  |                   |          |
| <b>Intended use</b>               | In precipitating techniques as immunoelectrophoresis and radial immunodiffusion to identify the presence alpha-2 macroglobulin in mouse serum or other body fluids and to determine its concentration. This antiserum is not intended for use in non-precipitating antibody-binding or other highly sensitive assays, but this does not exclude such use if proper controls are included.  |                   |          |
| <b>Directions for use</b>         | In immunoelectrophoresis use 2 µl serum or equivalent against 120 µl antiserum. In double radial immunodiffusion use a rosette arrangement with 10 µl antiserum in 3 mm diameter centre well and 2 µl serum samples (neat and serially diluted) in 2 mm diameter peripheral wells.   |                   |          |
| <b>Handling</b>                   | The lyophilized antiserum is shipped at ambient temperature and may be stored at +4°C; prolonged storage at or below -20°C. Reconstitute the lyophilized antiserum by adding 1 ml sterile distilled water. Dilutions may be prepared by adding phosphate buffered saline (PBS, pH 7.2). Repeated thawing and freezing should be avoided. If a slight precipitation occurs upon storage, this should be removed by centrifugation. It will not affect the performance of the antiserum. Diluted antiserum should be stored at +4°C, not refrozen, and preferably used the same day.   |                   |          |
| <b>Packing</b>                    | Vial with 1 ml lyophilized antiserum.  |                   |          |
| <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 antiserum 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> research purposes only.  |                   |          |

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