

Description	Purified IgG fraction of polyclonal sheep antiserum to rat alpha foetoprotein	
Product code	ShARa/AFP/7S	
Biological origin	Sheep	
Physical form	Purified hyperimmune sheep IgG lyophilized from a solution in phosphate buffered saline (PBS, pH 7.2).	
Preservative	No preservative added, as it may interfere with the activity of the antiserum.	
Immunogen	Purified rat alpha-foetoprotein is isolated from pooled amniotic fluid and hepatoma serum using a proprietary multiple step method. Several foetoproteins have been demonstrated in rat foetal serum and amniotic fluid. One of the best studied is the alpha-foetoprotein. It can be easily identified immunochemically because of its distinct antigenicity. In electrophoresis its relative mobility is between the albumin and the alpha-1 globulin fractions. Its molecular weight is 65,000, the carbohydrate content is relatively low. 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 antibodies reacting with other rat serum proteins. 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 restricted to alpha-foetoprotein. In immunoelectrophoresis and double radial immunodiffusion, using various antiserum concentrations against amniotic fluid, rat hepatoma sera and purified alpha-foetoprotein an single characteristic precipitin line is obtained. No reaction is obtained with rat sera of different strains.	
Cross-reactivity	Inter-species cross-reactivity is a normal feature of antibodies to mammalian proteins, since homologous proteins of different species frequently share antigenic determinants. Cross-reactivity of this antiserum has not been tested in detail, however in double radial immunodiffusion (Ouchterlony) a precipitation reaction has been observed with mouse amniotic fluid.	
Physicochemical characteristic	IgG protein concentration 10 mg/ml. No foreign proteins added.	
Intended use	As unlabelled primary or secondary antibody reagent for the indirect detection of alpha foetoprotein in tissues and body fluids in immunofluorescence and immunoenzyme methods; for the production of immunoconjugates with a selected marker; to prepare insoluble immunoaffinity adsorbents by coupling to an artificial carrier; as catching or detection reagent in non-isotopic methodology and solid phase immunochemistry (e.g. ELISA, Western blotting). <i>When applied in any cytochemical or histochemical procedure or solids phase coupling technique, the optimum concentration of the IgG preparation should always be established by titration.</i> Typical working dilutions in histochemistry 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.	
Handling	The lyophilized IgG fraction 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 product.	
Packing	Vial with 10 mg lyophilized IgG fraction.	
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 product 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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