

Description	Fluorescein isothiocyanate-conjugated IgG fraction of polyclonal sheep antiserum to rat alpha foetoprotein	
Product code	ShARa/AFP/FITC	
Biological origin	Sheep	
Physical form	FITC-coupled 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 conjugate.	
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 characteristics	IgG protein concentration 10 mg/ml. Fluorochrome/IgG protein molar ratio (F/P) is approximately 2.4. No foreign proteins added.	
Fluorescent marker	Fluorescein isothiocyanate isomer 1. Excitation: 492 nm, emission: 515 nm.	
Conjugation procedure	A proprietary technique for the binding to FITC 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	To identify and measure alpha foetoprotein at the cellular and subcellular level by immunofluorescence staining of appropriately treated cell and tissue substrates and to identify and measure alpha-foetoprotein in rat 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 1:20 and 1:80.	
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 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 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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