

Description	Precipitating polyclonal sheep antisera to human IgA1 and IgA2, subclass specific	
Product code	ShAHu/IgA1-2	
Biological origin	Sheep	
Physical form	Delipidated, heat inactivated, lyophilized, stable whole antisera	
Preservative	No preservative added.	
Immunogen	Highly purified homogenous IgA1, respectively IgA2 isolated from human serum. IgA constitutes about 20% of the normal Ig, which a mean value of 2.1 mg/ml. About 90% of the total IgA in serum is IgA1, while the remaining part is IgA2. In serum and other body fluids, IgA occurs in different forms. In exocrine secretions, the predominant form is 11S IgA, also known as secretory IgA (sIgA). The presence of IgA1 and IgA2 has been demonstrated in all these variants under physiological conditions. While their relative concentrations show individual variations, the IgA2 level in secretions such as milk, saliva, tears and bile is significantly higher than in serum and may go up to half of the total IgA present. Antisera to IgA2 usually do not react with normal serum. Freund's complete adjuvant is used in the first step of the immunization procedure.	
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. 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 IgA1, respectively to IgA2. They do not react with other immunoglobulins or any other non-Ig protein in human serum as tested by immunoelectrophoresis and radial immunodiffusion, using various antiserum concentrations against normal human serum.	
Cross-reactivity	The antiserum does not cross-react with any other component of the human immunoglobulin system. Interspecies cross-reactivity is a normal feature of antibodies to immunoglobulins, since Ig of different species frequently share antigenic determinants. Cross-reactivity of this antiserum has not been tested in detail.	
Protein concentration	Total protein and IgG concentrations in the antiserum are comparable to those of pooled normal sheep serum. No foreign proteins added.	
Antibody titre	The antigenic differences between subclasses are considerably less pronounced than those between classes or between light chain types. Subclass-specific determinants are only few in number and probably restricted in their structural exposure which make them relatively weak antigens. This explains why the titres of subclass-specific antisera are usually lower than those of class-specific antisera which react with many antigenic determinants commonly present on all molecules of the respective class.	
Intended use	In precipitating techniques as immunoelectrophoresis and radial immunodiffusion (Ouchterlony and Mancini) to identify the presence of IgA1 and IgA2 in human serum and other body fluids or to determine their concentration. For the identification of subclasses of human IgA in cells and tissues by immunofluorescence or immunocytochemical peroxidase techniques or in body fluids by ELISA and Western immunoblotting type procedures, NORDIMMUNE monoclonal antibody reagents to the individual subclasses are available.	
Directions for use	<p>Because of their characteristics and of those of the subclass-specific antigenic determinants, the use of these antisera requires special precautions. Their specificity and reactivity depend largely on the conditions of the test system in which they are applied.</p> <p>The performance of NORDIC polyclonal subclass-specific antisera is guaranteed when they are used for the purpose described in the RWP 5E/88, applying the special immunoprecipitation arrangements recommended for these purposes.</p> <p>In immunoelectrophoresis use 2 µl 1:8, 1:16 and 1:32 diluted pathological serum against 60 µl antiserum. In double radial immunodiffusion (Ouchterlony) use a rosette arrangement with 10 µl antiserum in 3 mm diameter center well and 2 µl serum samples (neat and serially diluted in 2 mm diameter peripheral wells. Nordic also makes available a human standard serum with assigned values of the subclasses of IgA (NOR-04).</p>	
Packing	Two vials with 0,5 ml lyophilized antiserum.	
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
Handling	The lyophilized antisera are shipped at ambient temperature and may be stored at +4°C; prolonged storage at or below -20°C. Reconstitute the lyophilized antisera by adding 0.5 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.	
Caution	These antisera 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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