Description	**Horseradish peroxidase-conjugated IgG fraction of polyclonal goat antiserum to human J chain of dimeric IgA**
Product code	GAHu/J/PO
Biological origin	Goat
Physical form	Horseradish peroxidase-coupled purified hyperimmune IgG lyophilized from a solution in phosphate buffered saline (PBS, pH 7.2)
Preservative	No preservative added, as it may interfere with the antibody activity.
Immunogen	Human J chain is a polypeptide folded within the structure of the polymeric immunoglobulin, resulting in a very limited exposure of J chain antigenic determinants. The antiserum is raised against the isolated and purified J chain. J chains isolated from polymeric IgA and IgM are identical by criteria of composition, peptide maps and antigenicity; Human J chain is distinct from all other chain components of polymeric IgA and IgM. It has a unique primary structure as shown by sequence analyses. 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 reacting with other with other plasma proteins. The use of insolubilized adsorption antigens prevents the presence of excess adsorbent protein or immune complexes in the antiserum.
Purification	Hyperimmune antisera with strong precipitating activity are selected for fractionation by saltprecipitation and purification of the IgG fraction by DEAE-chromatography.
Identity & Specificity	In immunoelectrophoresis and radial immunodiffusion (Ouchterlony), this immunoconjugate shows a single precipitation reaction with totally reduced and alkylated polyclonal and monoclonal polymeric IgA, secretory IgA and IgM. A reaction of complete identity is obtained with precipitated highly purified J chain and with the single of precipitation obtained with normal human serum after two hours incubation with 9M urea and 0.2M mercaptoethanol at pH 8.6. In a competitive radioimmunoassay no inhibition is obtained with monomeric IgA, polyclonal IgG, reduced and alkylated alpha, mu, gamma, kappa and lambda light chains (less than 1 percent over background).
Cross-reactivity	The antiserum does not cross-react with any other component of human plasma. Inter-species cross-reactivity is a normal feature of antibodies to plasma proteins since they frequently share antigenic determinants. J chains of many related specie (e.g. mouse, rabbit, dog cat sheep and swine) are known to posses a striking structural homology. Cross-reactivity of this antiserum has not been tested in detail.
Physicochemical characteristics	IgG protein concentration 10 mg/ml. Peroxidase/IgG protein molar ratio (E/P) approximately 1.7. No foreign proteins added.
Enzyme marker	Horseradish peroxidase enriched for isoenzyme C (RZ=3.2).
Conjugation procedure	Conjugation is carried out using a proprietary modification of the periodate technique for the binding to peroxidase, 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.
Intended use	In enzyme-immunocytochemical and immunohistochemical techniques for the detection of human J chain at the cellular and subcellular level in appropriately treated cell and tissue substrates; as detection reagent in non-isotopic methodology and solid phase immunochemistry (e.g. ELISA, Western blotting). *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.* Working dilutions for histochemical and cytochemical use are usually between 1:50 and 1:500; in ELISA and comparable non-precipitating antibody-binding assays between 1:200 and 1:1,000.
Directions for use	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.
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 *in vitro* research purposes only.

NORDIC IMMUNOLOGICAL LABORATORIES
Langendijk 25, 5652 AX Eindhoven, The Netherlands
Tel. +31 630 070 625, Fax: +31 402 920 069
E-mail: info@nordiclabs.nl
www.nordiclabs.nl

© Nordic Immunological Laboratories 2008