

Description	Biotin-conjugated IgG fraction of polyclonal goat antiserum to human secretory component, free and bound	
Product code	GAHu/SC/Bio	
Biological origin	Goat	
Physical form	Biotin-coupled purified hyperimmune goat 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	Secretory component is present in human secretions bound to secretory IgA (slgA) and in free form. Secretory IgA (slgA) functions as a dimer or polymer and accounts for almost all specific mucosal antibody activity. A molecule of slgA is made up of two molecules of IgA, one J chain and one SC (MW 65,000). The dimer IgA is transported into secretions by its binding to the SC on the epithelial cells. Under normal conditions, slgA contains both subclasses IgA1 and IgA2, since both are capable of binding SC. SC also has an affinity for polymeric IgM. Purified free human secretory component isolated from pooled milk is used for immunization. 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 antibody activity to any other serum protein. The use of insolubilized adsorption antigens prevents the presence of excess adsorbent protein or immune complexes in the antiserum.	
Identity & Specificity	Tested in immunoelectrophoresis, double radial immunodiffusion and ELISA against a panel of appropriate secretions and purified Ig isotypes. The antiserum reacts with both bound secretory component (secretory IgA) and with the free SC present in human secretions. In immunoelectrophoresis against human milk, using a high electroendosmosis agar plate, free SC is precipitated in the alpha-2 region. The immunoconjugate does not react with other molecular forms of IgA, or with any other secretory or plasma protein.	
Cross-reactivity	Inter-species cross-reactivity is a normal feature of antibodies to proteins, since homologous proteins of different species frequently share antigenic determinants. Cross-reactivity of this antiserum has not been tested in detail.	
Physicochemical characteristics	IgG protein concentration 10 mg/ml. Biotin/IgG protein molar ratio (B/P) is approximately 4.5. No foreign proteins added.	
Marker	N-Hydroxysuccinimidobiotin.	
Conjugation procedure	A proprietary technique for the binding to biotin is used, 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	<p>In immunocytochemical and immunohistochemical staining for the detection of free SC and secretory IgA at the cellular and subcellular level by staining of appropriately treated cell and tissue substrates. In non-isotopic assay methodology (e.g. ELISA) to identify and measure SC or secretory IgA in human body fluids. As a second step an avidin or streptavidin conjugate of the user's choice has to be used.</p> <p><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></p> <p>Working dilutions for histochemical and cytochemical use are usually between 1:100 and 1:500; in ELISA and comparable non-precipitating antibody-binding assays between 1:1,000 and 1:8,000.</p>	
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 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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