Description	**Tetramethylrhodamine isothiocyanate-conjugated IgG fraction of polyclonal goat antiserum to monkey secretory component**
Product code	GAMon/SC/TRITC
Biological origin	Goat
Physical form	Fluorochrome-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	Secretory component is present in monkey secretions bound to secretory IgA (sIgA) and in free form. Secretory IgA (sIgA) functions as a dimer or polymer and accounts for almost all specific mucosal antibody activity. A molecule of sIgA 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. SC also has an affinity for polymeric IgM. Purified free monkey secretory component isolated from pooled milk is used for immunization. Freund's complete adjuvant is used in the first step of the immunization procedure.
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.
Purification	Hyperimmune antisera with strong precipitating activity are selected for fractionation by saltprecipitation and purification of the IgG fraction by DEAE-chromatography.
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 monkey secretions. In immunoelectrophoresis against monkey milk, using a high electroendosmosis agar plate, free SC is precipitated in the alph-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 immunoglobulins, since Ig of different species frequently share antigenic determinants. Precipitation reactions have been observed with free and bound secretory component in serum of other old-world monkeys, including Cercopithecus, Cynomolgus and Baboon. The conjugate may also react with other species as has been observed for chimpanzee.
Physicochemical characteristics	IgG protein concentration 10 mg/ml. Fluorescein/IgG protein molar ratio (F/P) approximately 1.5. No foreign proteins added.
Fluorescent marker	Tetramethylrhodamine isothiocyanate isomer R. It has an orange-red fluorescence. Excitation: 554 nm, emission: 573 nm. To avoid nonspecific background staining, specially synthesized and exceptionally pure crystalline isomer R has been used instead of the usual racemic mixture. Although its fluorescence efficiency is less than of FITC, TRITC conjugates have the advantage of significantly less photo bleaching. This facilitates their use in quantitative cell-counting procedures.
Conjugation procedure	A proprietary technique for the binding to TRITC 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	As reagent for the direct detection of secretory component in monkey cells, tissues and body fluids in immuno-fluorescence; as detection reagent in non-isotopic methodology and solid phase immunochemistry (e.g. ELISA). *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 are usually between 1:10 and 1:40.
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 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 *in vitro* research purposes only.

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