

Description	Specificity Reference Reagent Tetramethylrhodamine isothiocyanate-conjugated IgG fraction of polyclonal goat antiserum to free and bound human Ig kappa light chain	
Product code	SR/GAHu/BJK(SD+HD)/TRITC	
Biological origin	Goat	
Physical form	Fluorochrome coupled purified goat IgG lyophilized from a solution in phosphate buffered saline (pH 7.2).	
Preservative	No preservative added, as it may interfere with the antibody activity	
Immunogen	A pool of purified Bence Jones kappa proteins isolated from human urine. 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 human serum proteins.	
Purification	Hyperimmune antisera with strong precipitating activity are selected for fractionation by salt-precipitation and purification of the IgG fraction by DEAE-chromatography.	
Identity & Specificity	The reactivity of the antiserum is directed to the surface and hidden determinants of Ig kappa light chain. In immunoelectrophoresis this antiserum is reacting with polyclonal and monoclonal immunoglobulins of the kappa type, Bence Jones proteins as well as free light chains of the kappa type. This antiserum does not react with any other protein of human serum or plasma.	
Cross-reactivity	Inter-species cross-reactivity is a normal feature of antibodies to immunoglobulins and their fragments, since Ig of different species frequently share antigenic determinants. Cross-reactivity of this antiserum has not been tested in detail.	
Physicochemical characteristics	IgG protein concentration is 10 mg/ml. Fluorochrome/IgG protein ratio (F/P) approximately 1.8. 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 uses	This conjugate is intended for use in direct immunofluorescence for the detection of polyclonal immunoglobulins, purified monoclonal immunoglobulins of the kappa type as well as free light chains or Bence Jones proteins of the kappa type in 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 1:60.	
Handling	The lyophilized product 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 product.	
Packing	Vial with 1 ml 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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