

Description	IgG fraction of polyclonal goat antiserum to free human Ig kappa light chain
Product code	GAHu/BJK(HD)
Biological origin	Goat
Physical form	Purified hyperimmune 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 human serum proteins. Further adsorption by stepwise soluble adsorption to eliminate antibodies reacting with bound kappa chain.
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 hidden determinants of Ig kappa light chain. In immunoelectrophoresis this antiserum is only reacting with Bence Jones proteins as well as free light chains of the kappa type. No reaction is obtained with intact polyclonal or monoclonal immunoglobulins.
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 characteristic	Goat IgG protein concentration is about 22 mg/ml. No foreign proteins added.
Intended use	To detect and identify free light chain type and Bence Jones protein in serum or urine by immunoelectrophoresis or double radial immunodiffusion. It is of great importance as an aid in the diagnosis of B cell malignancies such as multiple myeloma and non-Hodgkin lymphoma, and in monitoring their therapy. In immunoelectrophoresis use 1.2 µl of sample in a well with a diameter of 1 mm against 60 µl antiserum in a 20 mm long channel. Electrophoresis for 1 hour, 20 mA. The detection limit of this technique in serum is about 25 mg/l; in the case 100 times concentrated urine is used the detection limit can be brought down to 0.5 mg/l. The fact that in about 40% of the case the Bence Jones protein was only detectable in either serum or urine emphasizes the necessity to investigate both fluids.
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. 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 20 mg lyophilized IgG (7S) preparation.
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 antiserum 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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