Description	**Purified IgG fraction of polyclonal goat antiserum to human lactoferrin**
Product code	GAHu/Lfr/7S
Biological origin	Goat
Physical form	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	Exocrine organs produce various secretions, each with its characteristic function. Proteins found in secretions may be divided into two groups: those specific for the particular secretion, and plasma proteins independent of the type of exocrine cells. Lactoferrin belongs to the first group. It is an iron containing protein with a molecular weight of 75,000 and it is antigenically different from transferrin. Lactoferrin has a slight anti-microbial action. Originally identified in milk, its presence has also been demonstrated in other secretions as saliva, semen and tears. The immunogen has been isolated from human milk. Freund's complete adjuvant is used in the first step of the immunization procedure.
Adsorption	Immunoaffinity adsorbed using insolubilized fractions of human serum and lactoferrin–depleted human milk as required, to eliminate antibodies reacting with other human serum or milk 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 salt-precipitation and purification of the IgG fraction by DEAE-chromatography.
Identity & Specificity	In immunoelectrophoresis against human milk a single precipitin line is obtained. The antiserum does not react with any other protein component of human serum or plasma.
Cross-reactivity	The antiserum does not cross-react with any other human plasma proteins as tested in gel-diffusion techniques. Inter-species cross-reactivity is a normal feature of antibodies to plasma or milk proteins, since homologous proteins of different species frequently share antigenic determinants. Cross-reactivity of this antiserum has not been tested in detail, however in double radial immunodiffusion a reaction with Rhesus monkey milk has been observed.
Physicochemical characteristics	IgG protein concentration 10 mg/ml. No foreign proteins added.
Intended use	In enzyme-immunocytochemical and immunohistochemical techniques for the indirect detection of human lactoferrin at the cellular and subcellular level in appropriately treated cell and tissue substrates; as catching reagent in non-isotopic methodology and solid phase immunochemistry (e.g. ELISA, Western blotting). *The optimum working dilution of the product should be established by titration before being used.* Working dilutions for histochemical and cytochemical use are usually between 1:50 and 1:500.
Directions for use	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 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 10 mg lyophilized IgG (7S) fraction.
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 product 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

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