

CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	Lactoferrin, Human, pAb		
Catalog number	HP9034		
Lot number	-	Expiry date	-
Volume	1 ml	Amount	100 µg
Formulation	0.2 µm filtered in PBS+0.1%BSA+0.02%NaN3	Concentration	100 µg/ml
Host Species	Bovine IgG	Conjugate	None
Endotoxin	N.A.	Purification	Protein A
Storage	4°C		

Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #								
Yes						•	•	•
No								
N.D.	•	•	•	•	•			

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

- IA: the antibody can be used as coating and detection.

General Information

Description Human lactoferrin (LF) is an 80 kDa glycoprotein which was first isolated from human milk. It plays an important part in the immune system and helps to fight infections. Lactoferrin promotes the health of the gastro-intestinal system by improving the intestinal microbial balance. In addition, LF can be found in epithelia and most body fluids and secretions. Lactoferrin is secreted in plasma by neutrophils. Its plasma concentration also represents a positive relation to the total pool of neutrophils and the rate of neutrophil turnover. In inflammation lactoferrin is released from secondary granules of neutrophilic leukocytes into the extracellular medium. Therefore the extracellular lactoferrin concentration can be used as an index for neutrophil activation. Lactoferrin strongly binds to iron and this iron binding property is considered to be an important antimicrobial. Human lactoferrin binds to bacterial products through its highly positively charged N-terminus, it kills various bacteria, most probably by inducing intracellular changes in these bacteria without affecting the membrane permeability. Cleavage by pepsin of lactoferrin leads to the release of lactoferricin H. This 47 amino acid peptide has more antimicrobial activity than its precursor and it can inhibit the classical but not the alternative complement pathway. Lactoferrin also plays a role in signal transduction, immunomodulation and has antiadhesive, anticancer, antiviral activity.

- References**
1. Nuijens, J et al; Characterization of recombinant human lactoferrin secreted in milk of transgenic mice. J Biol Chem 1997, 272: 8802
 2. Nibbering, P et al; Human lactoferrin and peptides derived from its N terminus are highly effective against infections with antibiotic-resistant bacteria. Infect Immun 2001, 69: 1469
 3. Veen, van H et al; Analytical cation-exchange chromatography to assess the identity, purity, and N-terminal integrity of human lactoferrin. Anal Biochem 2002, 309: 60

Storage&stability Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.

Precautions For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC
Robbert Zwinkels

Date
15/03/2018

Do you have any questions or comments regarding this product? Please contact us via support@hycultbiotech.com.