

**CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET**

<b>Product name</b>	Lactoferrin, Mouse, clone 1E4		
<b>Catalog number</b>	HM1133-20UG		
<b>Lot number</b>	-	<b>Expiry date</b>	-
<b>Volume</b>	200 µl	<b>Amount</b>	20 µg
<b>Formulation</b>	0.2 µm filtered in PBS+0.1%BSA+0.02%NaN3	<b>Concentration</b>	100 µg/ml
<b>Host Species</b>	Mouse IgG2b	<b>Conjugate</b>	None
<b>Endotoxin</b>	N.A.	<b>Purification</b>	Protein G
<b>Storage</b>	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: HM1133 can be used as capture antibody.
- W: A non-reduced and reduced sample treatment and SDS-Page was used. The band size is 80kDa.

**General Information**

**Description** Monoclonal antibody clone 1E4 recognizes mouse lactoferrin (LF). The expression of small proteins and peptides with microbial activity, also called antimicrobial peptides (AMPs), is considered to be a primitive mechanism of immunity. AMPs are produced by almost all cell types which are commonly exposed to microbes. Lactoferrin is a multifunctional AMP and a major element of innate immunity but also affects adaptive immune functions. LF is a well conserved mammalian non-haem iron-binding 80kD monomeric glycoprotein of the transferrin family. The protein is found in mucosal secretion like saliva, tears, urine, vaginal fluids, semen, urine and very high concentrations in (colostral) milk (1-7mg/ml). Its protective effects range from direct antimicrobial activities against a large panel of microorganisms, including bacteria, viruses, fungi and parasites, to anti-inflammatory and anticancer activities. The main functions of LF resided in specific domains and have predominantly be found in the N-terminal side. One of the main functions is inhibition of microbial growth by sequestration of iron, which is essential for growth. The N-terminal structure of LF is mainly responsible for this function. The N-terminal domain contains also a serine- protease-like activity which is involved in inactivation of host cell invasion by bacteria. Following infection, LF is released from secondary granules of neutrophils in blood and inflamed tissue and functions as pattern-recognition receptor. Therefore, LF plasma concentration represents a positive relation to the total pool of neutrophils and the rate of neutrophil turnover and can be used as an index for neutrophil activation. In the adaptive immune response, LF promotes the maturation of T-cell precursors into competent helper cells and by differentiation of immature B-cells into antigen presenting cells.

**Immunogen** Mouse lactoferrin peptide

**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  
Brenda Teunissen

Date  
13/11/2020

Do you have any questions or comments regarding this product? Please contact us via [support@hycultbiotech.com](mailto:support@hycultbiotech.com).