

CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	Lactoferricin B, Bovine, clone 5F12.1.2	Expiry date	-
Catalog number	HM4012-20UG		
Lot number	-	Amount	20 µg
Volume	200 µl	Concentration	100 µg/ml
Formulation	0.2 µm filtered in PBS+0.1%BSA+0.02%NaN3	Conjugate	None
Host Species	Mouse IgG1	Purification	Protein G
Endotoxin	N.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 1:10.

- W: The antibody detects a band of 3kDa when western blot is used as application. This asks for a special SDS-Page or Tricine protocol.
- IA: HM4012 can be used as detection in Immuno assay.

General Information

Description Monoclonal antibody clone 5F12.1.2, anti bovine Lactoferricin B is highly specific for bovine Lactoferricin B. This peptide is derived by enzymatic cleavage of lactoferrin which is a member of the transferrin family of metal-binding proteins found in milk and other secretory fluids and also in blood. Cleavage by pepsin of bovine lactoferrin leads to the release of Lactoferricin B (aminoacid 17-41). This peptide is highly basic, possessing five Arg (R) and three Lys (K) residues. In addition, a number of Trp (W) and Phe (F) aromatic residues are present. The two Cys (C) residues from lactoferricin B form a disulfide bond, generating an almost completely cyclical peptide. Nevertheless, the disulfide bond is not required for the antimicrobial potency. Several studies have shown that Lactoferricin B has a broad-spectrum activity against various Gram-positive and Gram-negative bacteria. In addition the peptide has been shown to have antifungal, antiviral and antitumour activity and to bind lipopolysaccharides (LPS, endotoxin). Moreover, it is known to stimulate the adaptive immune response and has anti-inflammatory properties. Lactoferricin B belongs to a large group of cationic antimicrobial peptides. The monoclonal antibody 5F12.1.2 is specific for bovine Lactoferricin B and detects the QWR antigenic determinant specific for bovine Lactoferricin B (3kDa), it lacks reactivity with bovine lactoferrin C-lobe, human lactoferrin or lactoferricin H. The QWR sequence recognized by the antibody 5F12.1.2 is not present in lactoferrin in human, pig, mouse, goat, rabbit, horse, rat, cockroach and African clawed frog.

- References**
1. Shimazaki, K et al; Monoclonal antibody against bovine lactoferricin and its epitopic site. J Vet Med Sci 1996, 58: 1227
 2. Shimazaki, K et al; Structural and immunochemical studies on bovine lactoferrin fragments. Adv Exp Med Biol 1998, 443: 41

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
13/01/2021

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