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SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 



Mouse anti Lactoferrin, conjugated to PE

 nordicmubio.com/products/Mouse-anti-Lactoferrin-conjugated-to-PE/GM-4113

Catalog number: **GM-4113**

Clone	4C5
Isotype	IgG1
Product Type	Primary Antibodies
Units	2ml (100 Tests)
Host	Mouse
Species Reactivity	Human
Application	Flow Cytometry Immunofluorescence

Background

Lactoferrin (LF) is an iron-binding protein with bactericidal and bacteriostatic activity, which is stored within the secondary granules of granulocytes. LF expression is restricted to the post-mitotic maturation compartment of the granulocytic lineage, starting from the myelocyte stage. Normal and malignant myeloblasts are LF negative. The 4C5 antibody permits the identification and enumeration of human granulocytes using flow cytometry. Results must be interpreted by a certified professional before final interpretation. Analyses performed with this antibody should be paralleled by positive and negative controls. If unexpected results are obtained which cannot be attributed to differences in laboratory procedures, please contact us.

Product

2 ml of PE-conjugated anti Lactoferrin (clone 4C5) in PBS pH 7.2, 1% BSA, and 0.05% NaN₃, approximately 100 tests.

Product Form: PE

Formulation: PBS pH 7.2, 1% BSA, 0.05% NaN₃

Purification Method: Purified by Chromatography

Specificity

The LF mAb (clone 4C5) recognizes Lactoferrin stored within secondary granules of postmitotic granulocyte-committed cells. The sensitivity of 4C5 mAb is determined by staining well-defined blood samples from representative donors with serial-fold mAb dilutions to obtain a titration curve that allows relating the mAb concentration to the percentage of stained cells and geometric MFI (mean fluorescence intensity). For this purpose, a mAb concentration range is selected to include both the saturation point (i.e. the mAb dilution expected to bind all epitopes on the target cell) and the detection threshold (i.e. the mAb dilution expected to represent the least amount of mAb needed to detect an identical percentage of cells). In practice, 50 µl of leukocytes containing 10⁷ cells/ml are stained with 20 µl mAb of various dilutions to obtain a titration curve and to identify the saturation point and detection threshold. The final concentration of the product is then adjusted to be at least 3-fold above the detection threshold. In addition and to control lot-to-lot variation, the given lot is compared and adjusted to fluorescence standards with defined intensity.

Applications

Permeabilization and Staining Procedure - In combination with our Permeabilization Kit FIX&PERM® (Cat. NoGAS-002) intracellular Lactoferrin can be easily stained in cell suspensions. - For each sample to be analyzed add 50 µl of whole blood, bone marrow or mononuclear cell suspension in a 5ml tube - Add 100 µl of Reagent A (Fixation Medium, stored and used at room temperature) - Incubate for 15 minutes at room temperature - Add 5ml phosphate buffered saline and centrifuge cells for 5 minutes at 300 g - Remove supernatant and add to cell pellet 100 µl Reagent B (Permeabilization Medium) and 20 µl of the Lactoferrin monoclonal antibody conjugate - Vortex at low speed for 1-2 seconds - Incubate for 15 minutes at room temperature - Wash cells with phosphate buffered saline as described above - Remove supernatant and resuspend cells in sheath fluid for immediate analysis or resuspend cells in 0.5 ml 1.0 % formaldehyde and store them at 2-8°C in the dark. Analyze fixed cells within 24 hours. **Conventional Staining for Microscopic Evaluations** LF-Antibody 4C5 can also be used to demonstrate lactoferrin molecules by conventional immunofluorescence or immunoenzyme staining techniques on cell smears, cytopsin preparations or tissue sections. Acetone or paraformaldehyde are suitable fixatives for these purposes.

Storage

Nordic-MUbio monoclonal antibody reagents contain optimal concentrations of affinity-purified antibody. For stability reasons this monoclonal antibody solution contains sodium azide. These reagents should be stored at 2-8°C (DO NOT FREEZE!) and protected from prolonged exposure to light. If a slight precipitation occurs upon storage, this should be removed by centrifugation. It will not affect the performance or the concentration of the product. Stability of the reagent: Please refer to the expiry date printed onto the vial. The use of the reagent after the expiration date is not recommended.

Caution

This product is intended FOR RESEARCH USE ONLY, and FOR TESTS IN VITRO, not for use in diagnostic or therapeutic procedures involving humans or animals. It may contain hazardous ingredients. Please refer to the Safety Data Sheets (SDS) for additional information and proper handling procedures. Dispose product remainders according to local regulations. This datasheet is as accurate as reasonably achievable, but Exalpa Biologicals accepts no liability for any inaccuracies or omissions in this information.

References

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Warranty

The products sold hereunder are warranted only to conform to the quantity and contents stated on the label at the time of delivery to the customer. There are no warranties, expressed or implied, that extend beyond the description on the label of the product. Exalpa's sole liability is limited to either replacement of the products or refund of the purchase price. Exalpa is not liable for property damage, personal injury, or economic loss caused by the product.

Safety Datasheet(s) for this product:

NM_Sodium Azide



Figure 1. Flow cytometric analysis of a normal blood sample after immunostaining with GM-4113 (MPO-C2-PE)



Figure 2. Flow cytometric analysis of a normal blood sample after immunostaining with GM-4192 (MPO-C2-PE)