



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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## Catalogue

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 [nordicmubio.com/products/mouse-anti-cd22/GM-4051](http://nordicmubio.com/products/mouse-anti-cd22/GM-4051)

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### Mouse anti CD22

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Catalog number: **GM-4051**

Clone	RFB4
Isotype	IgG1
Product Type	Primary Antibodies
Units	0,2mg
Host	Mouse
Species Reactivity	Human
Application	Flow Cytometry Immunofluorescence

### Background

The epitope recognized by antibody RFB4 is a 135 kDa type I integral membrane protein expressed by human B-cells. Precursor B-cells are surface-CD22 negative, but cytoplasmic CD22 positive. Mature B-lymphocytes express CD22 also on their surface. The RFB4 antibody permits the identification and enumeration of human B-cells 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

Purified by Chromatography, Storage buffer: PBS pH 7.2, 1% BSA, 0.05% NaN<sub>3</sub>

*Formulation:* PBS pH 7.2, 1% BSA, 0.05% NaN<sub>3</sub>

*Purification Method:* Purified by Chromatography

## Specificity

The CD22 mAb (clone RFB4) recognizes surface CD22 expressed by mature peripheral B-cells and cytoplasmatic CD22 expressed by precursor B-cells. The sensitivity of RFB4 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  $10^7$  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

**Staining Procedure for Surface CD22: Direct Immunofluorescence (Staining Procedure)**  
Nordic-MUBio fluorochrome labeled antibodies are designed for use with either whole blood or isolated mononuclear cell (MNC) preparations  
Proposed staining procedure for whole blood in short: - For each sample add 50 µl of EDTA anti-coagulated blood to a 3-5 ml tube - Add 20 µl of the appropriate Nordic-MUBio monoclonal antibody conjugate - Incubate the tube for 15 minutes at 4°C or at room temperature in the dark - Add 100 µl Nordic-MUBio-LYSE (Cat.No. GAS-003) to each tube and incubate for 10 minutes at room temperature - Add 3-4 ml of distilled water and vortex, incubate for 5-10 minutes at room temperature - Centrifuge tube for 5 minutes at 300 g - Aspirate supernatant and resuspend pellet in 0.3 ml of sheath fluid - Analyze immediately or store samples at 2-8°C in the dark and analyze within 24 hours For "No-Wash" protocol please refer to [www.nordicmubio.com](http://www.nordicmubio.com)  
Proposed staining procedure for MNC in short: - Carefully add 20 µl antibody conjugate and 50-100 µl MNC to the bottom of a tube - Vortex at low speed for 1-2 seconds - Incubate for 15-30 minutes at 2-8°C or at room temperature - Centrifuge tubes for 5 minutes at 300 g - Remove supernatant, resuspend cells in 2-5 ml of phosphate buffered saline (PBS) and centrifuge cells again for 5 minutes at 300 g - Remove supernatant and resuspend cells in sheath fluid for immediate analysis or resuspend cells in 0.5 ml 1 % formaldehyde and store them at 2-8°C in the dark. - Analyze fixed cells within 24 hours  
**Indirect Immunofluorescence (Staining Procedure)** - Mix 20 µl Nordic-MUBio purified antibody with 50 µl whole blood or MNC suspension - Incubate for 15 minutes at 2-8°C - Wash cells with phosphate buffered saline (PBS) - Add to cell pellet 20 µl of affinity purified, fluorochrome labeled F(ab')<sub>2</sub> anti mouse Ig antibodies - Incubate for 15 minutes at 2-8°C - Wash cells with phosphate buffered saline (PBS) or proceed as described for direct staining  
**Staining Procedure for Cytoplasmatic CD22: Permeabilization and Staining Procedure** - In combination with our Permeabilization Kit FIX&PERM® (Cat. No. GAS-002) intracellular CD22 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 CD22 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.

### **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 Exalpha 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. Identification and enumeration of CD22 positive human B-cells using flow cytometry with GM-4051.