



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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## NM-LYSE: Flow Cytometry Lysing Solution

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 [nordicmubio.com/products/NM-LYSE-Flow-Cytometry-Lysing-Solution/GAS-003](http://nordicmubio.com/products/NM-LYSE-Flow-Cytometry-Lysing-Solution/GAS-003)

Catalog number: **GAS-003**

Product Type    Buffers and Reagents

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Units            30ml (300 Tests)

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Application     Flow Cytometry

### Background

Flow cytometric analyses with monoclonal antibodies were so far restricted to leukocyte populations, which had been separated from erythrocytes before staining and/or analysis. Instead, whole blood staining methods allow for a rapid and accurate determination of cellular subpopulations in non-separated biological samples. This is not only time saving but reduces also the probability of an unintended loss of distinct cellular populations due to e.g. commonly used differential centrifugation procedures. With the NM-LYSE reagent flow cytometric analysis of whole blood has become as easy and accurate as the analysis of separated cell populations. 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

NM-LYSE can be applied in wash- or no-wash lysing procedures with whole blood or bone marrow samples. NM-LYSE is a premixed, ready to use lysing solution formulated for lysing erythrocytes following monoclonal antibody staining of whole blood. Treatment with this reagent simultaneously leads to lysis of red blood cells and fixation of white cells. Morphological scatter characteristics of leukocytes remain intact. NM-LYSE can be used with or without sample washing. NM-LYSE is suitable for the analysis of normal and malignant leukocyte populations derived from various human biological samples (blood, bone marrow and others) using flow cytometry. Results must be put within the context of other diagnostic tests as well as the clinical history of the patient by a certified professional before final interpretation. The quality of each NM-LYSE Lot is determined by lysing red blood cells of well defined blood samples from representative donors and subsequent comparison of forward and side scatter characteristics of obtained leukocytes.

## Applications

Biological fluids (blood, bone marrow, and others) must be collected under sterile conditions. Anticoagulation with EDTA or heparin is recommended. The samples should be stored at room temperature until used. For optimal results, samples should be processed and analyzed within 24 hours. Samples with high numbers of non-viable cells might cause false results, such cases require determination of cell viability with e.g. propidium iodide. All biological samples have to be handled with caution. Always consider them as potentially infective. Use appropriate precautions such as gloves, lab-coat, etc.

**No-wash staining and lysing procedure**

- 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 NM-LYSE to each tube and incubate for 10 minutes at room temperature
- Add 1 ml of distilled water and vortex, incubate for 5-10 minutes at room temperature
- Analyze immediately or store samples at 2-8° C in the dark and analyze within 24 hours

**Wash staining and lysing procedure**

- 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 NM-LYSE 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

NM-LYSE is designed for use with all commercially available flow cytometers. Alignment and compensation should be performed according to manufacturer's instructions.

*Limitations of the technique:* Flow cytometry should be performed by professional users only. Improper alignment of the flow cytometer, inaccurate compensation of fluorescence leaking into other channels as well as incorrect positioning of regions may lead to false results. Lysis of red cells might be impossible for various reasons. In such instances it is recommended to isolate mononuclear cells (MNC) via density gradient centrifugation prior to staining. Results will be correct and reproducible as long as the procedures used respect the technical recommendations and obey good laboratory practice. The NM-LYSE solution is provided at a concentration that will allow lyse human erythrocytes. It is therefore strongly recommended to stick to the working protocol in terms of concentration and volume regarding cells and antibody. The properties of NM-LYSE have been determined using EDTA anti-coagulated peripheral blood. Avoid ingestion and inhalation and contact with eyes, skin and clothing. Proper handling procedures are recommended. For research use only. Not for diagnostic or therapeutic use.

## Storage

NM-LYSE reagent should be stored and used at room temperature. 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. Do not use reagent if a precipitate should form or discoloration occurs. If unexpected results are obtained which cannot be attributed to differences in laboratory procedures, please contact us

### **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. For professional users only. NM-LYSE Cell Fixation and Permeabilization Kit contains formaldehyde and is labelled: Harmful. Formaldehyde is toxic, allergenic and a suspected carcinogen. Never pipette by mouth and avoid contact with eyes, skin and clothing. Proper handling procedures are recommended. As a main rule, persons under 18 years of age are not allowed to work with this product. Users must be carefully instructed in the proper working procedure, the dangerous properties of the product and the necessary safety instructions. Please refer to the Safety Data Sheet (SDS) for additional information. Dispose product remainders according to local regulations.

### **References**

1. Bossuyt, X., Marti, G. E. & Fleisher, T. A. (1997) *Cytometry* 30, 124-33. 2. Fritsch, G., Printz, D., Stimpfl, M., Dworzak, M. N., Witt, V., Potschger, U. & Buchinger, P. (1997) *Transfusion* 37, 775-84. 3. Kormoczi, G. F., Wolfel, U. M., Rosenkranz, A. R., Horl, W. H., Oberbauer, R. & Zlabinger, G. J. (2001) *J Immunol* 167, 451-60. 4. Menendez, P., Redondo, O., Rodriguez, A., Lopez-Berges, M. C., Ercilla, G., Lopez, A., Duran, A., Almeida, J., Perez-Simon, J. A., San Miguel, J. F., Gratama, J. W. & Orfao, A. (1998) *Cytometry* 34, 264-71.

### **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. Exalpha`s sole liability is limited to either replacement of the products or refund of the purchase price. Exalpha is not liable for property damage, personal injury, or economic loss caused by the product.

### **Safety Datasheet(s) for this product:**

NM\_SDS\_GAS-003



Figure 1 Flow cytometry scatter profile of peripheral blood leukocytes after lysis of whole blood with NM-LYSE (no-wash method)