



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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## Mouse anti Reticulon-1A / NSP-A

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 [nordicmubio.com/products/mouse-anti-reticulon-1a-nsp-a/MUB1311P](http://nordicmubio.com/products/mouse-anti-reticulon-1a-nsp-a/MUB1311P)

Catalog number: **MUB1311P**

Clone	MON161
Isotype	IgG1
Product Type	Primary Antibodies
Units	0.1 mg
Host	Mouse
Species Reactivity	Hamster Human Mouse Rat
Application	Flow Cytometry Immunocytochemistry Immunohistochemistry (frozen) Immunohistochemistry (paraffin) Western Blotting

### Background

Recently, a novel gene family has been identified and characterized, designated the Reticulons because the proteins encoded by these genes are anchored to the membranes of the endoplasmic reticulum. Reticulon-1 was formerly designated NSP for Neuroendocrine-Specific-Protein, because it is specifically expressed in neural and neuroendocrine tissues. The NSP-gene has been mapped by fluorescence in situ hybridization to Human chromosome 14q21-q22. The NSP-gene encodes three overlapping proteins, i.e. Reticulon-1A (NSP-A), Reticulon-1B (NSP-B), and Reticulon-1C (NSP-C). These proteins were found to be anchored to membranes of the endoplasmic reticulum through their common carboxy-terminal regions. Reticulon-1A is a protein with a molecular weight (MW) of about 135 kDa, which occurs in various isoforms presumably depending on the degree of phosphorylation of serine residues. In lung cancer diagnosis Reticulon-1A appeared to be a reliable marker for the detection of neuroendocrine

differentiation, since most of the small cell lung carcinoma (SCLC) and carcinoid tumors showed expression of Reticulon-1A. Reticulon-1B is a phosphoprotein with a MW of 45 kDa and is restricted to the lung cancer cell line NCI-H82. Reticulon-1B is so far not found in Human tissues. Reticulon-1C is a protein with a MW of 23 kDa which is not phosphorylated and is found with Reticulon-1A in SCLC (cell lines) and not in non-SCLC (cell cultures).

*Synonyms:* Reticulon/ Neuro-endocrine specific protein

### **Source**

MON-161 is a Mouse monoclonal IgG1 antibody derived by fusion of Mouse myeloma cells with spleen cells from a Mouse immunized with a partially purified bacterially expressed Reticulon-1A (NSP-A) hybrid protein ( $\beta$ GAL-NSP-A 6-776).

### **Product**

Each vial contains 100  $\mu$ l 1 mg/ml purified monoclonal antibody in PBS containing 0.09% sodium azide.

*Formulation:* Each vial contains 100  $\mu$ l 1 mg/ml purified monoclonal antibody in PBS containing 0.09% sodium azide.

### **Specificity**

MON-161 exclusively recognizes the 135 kD Reticulon-1A protein in immunoblots of NCI-H82 and other SCLC cell lines, and stains normal and pathological neural and neuroendocrine tissues. The epitope of MON-161 is located between amino acid residues 174-337 of Reticulon-1A.

### **Applications**

MON-161 is useful for immunocytochemistry, immunohistochemistry on frozen and paraffin-embedded tissue, immunoblotting and flow cytometry. Optimal antibody dilution should be determined by titration; recommended range is 1:50 – 1:100 for flow cytometry, and for immunohistochemistry with avidin-biotinylated Horseradish peroxidase complex (ABC) as detection reagent, and 1:50 – 1:500 for immunoblotting applications.

### **Storage**

The antibody is shipped at ambient temperature and may be stored at +4°C. For prolonged storage prepare appropriate aliquots and store at or below -20°C. Prior to use, an aliquot is thawed slowly in the dark at ambient temperature, spun down again and used to prepare working dilutions by adding sterile phosphate buffered saline (PBS, pH 7.2). Repeated thawing and freezing should be avoided. Working dilutions should be stored at +4°C, not refrozen, and preferably used the same day. 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.

## 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

1. Roebroek, A.J.M., van de Velde, H.J.K., Van Bokhoven, A., Broers, J.L.V., Ramaekers, F.C.S., Van de Ven, W.J.M. (1993). Cloning and expression of alternative transcripts of a novel neuroendocrine-specific gene and identification of its 135-kDa translation product. *J. Biol. Chem.* 268,13439-47.
2. van de Velde, H. J., Roebroek, A. J., van Leeuwen, F. W., and Van de Ven, W. J. (1994). Molecular analysis of expression in Rat brain of NSP-A, a novel neuroendocrine-specific protein of the endoplasmic reticulum, *Mol Brain Res* 23, 81-92.
3. van de Velde, H. J., Roebroek, A. J., Senden, N. H., Ramaekers, F. C., and Van de Ven, W. J. (1994). NSP-encoded reticulons, neuroendocrine proteins of a novel gene family associated with membranes of the endoplasmic reticulum, *J Cell Sci* 107, 2403-16.
4. van de Velde, H. J., Senden, N. H., Roskams, T. A., Broers, J. L., Ramaekers, F. C., Roebroek, A. J., and Van de Ven, W. J. (1994). NSP-encoded reticulons are neuroendocrine markers of a novel Category in Human lung cancer diagnosis, *Cancer Res* 54, 4769-76.
5. Senden, N. H., Timmer, E. D., de Bruine, A., Wagenaar, S. S., Van de Velde, H. J., Roebroek, A. J., Van de Ven, W. J., Broers, J. L., and Ramaekers, F. C. (1997). A comparison of NSP-reticulons with conventional neuroendocrine markers in immunophenotyping of lung cancers, *J Pathol* 182, 13-21.
6. Hens, J., Nuydens, R., Geerts, H., Senden, N. H., Van de Ven, W. J., Roebroek, A. J., van de Velde, H. J., Ramaekers, F. C., and Broers, J. L. (1998). Neuronal differentiation is accompanied by NSP-C expression, *Cell Tissue Res* 292, 229-37.

## Safety Datasheet(s) for this product:

NM\_Sodium Azide