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Mouse anti Reticulon-1A / NSP-A

Catalogue number: **MUB1312P**

Clone	MON162
Isotype	IgG1
Product Type	Primary Antibodies
Units	0.1 mg
Host	Mouse
Species reactivity	Hamster Human Mouse Rat
Application	Immunoblotting Immunocytochemistry Immunohistochemistry (frozen) Immunohistochemistry (paraffin)

Distributors

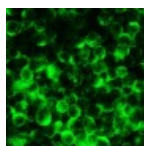
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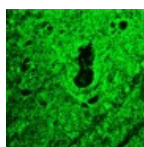
Background

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

1_MUB1312 Figure 1
Immunostaining of
NCI-H82 variant small
cell lung cancer



2_MUB1312 Figure 2
Immunohistochemistry
on frozen section of
swine brain



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).

Source

MON-162 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 (β -GAL-NSP-A 6-776).

Product

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

Applications

MON-162 is useful for immunocytochemistry, immunohistochemistry on frozen and paraffin-embedded tissue, and immunoblotting. Optimal antibody dilution should be determined by titration; recommended range is 1:100 – 1:200 for immunohistochemistry with avidin-biotinylated Horseradish peroxidase complex (ABC) as detection reagent, and 1:100 – 1:1000 for immunoblotting applications.

Specificity

MON-162 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-162 is located between amino acid residues 338-422 of Reticulon-1A.

Storage

Store at 4°C, or in small aliquots at -20°C.

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.
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Brain Res 23, 81-92.

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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.

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. This product contains sodium azide. To prevent formation of toxic vapors, do not mix with strong acidic solutions. To prevent formation of potentially explosive metallic azides in metal plumbing, always wash into drain with copious quantities of water. This datasheet is as accurate as reasonably achievable, but Nordic-MUbio accepts no liability for any inaccuracies or omissions in this information.