

Datasheet for ABIN335394
anti-Reticulon 1A antibody



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Overview

Quantity:	0.1 mg
Target:	Reticulon 1A
Reactivity:	Human, Hamster, Mouse, Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Reticulon 1A antibody is un-conjugated
Application:	Immunohistochemistry (Frozen Sections) (IHC (fro)), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunohistochemistry (IHC), Western Blotting (WB), Flow Cytometry (FACS), Immunocytochemistry (ICC)

Product Details

Immunogen:	MON-160 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).
Clone:	MON160
Isotype:	IgG1
Specificity:	Human, mouse, hamster and rat.
Purification:	Purified

Target Details

Target:	Reticulon 1A
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Target Details

Alternative Name: Reticulon-1A / NSP-A

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).

Application Details

Application Notes: MON-160 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-160 is located between amino acid residues 174-337 of Reticulon-1A. MON-160 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.

Restrictions: For Research Use only

Handling

Storage: 4 °C

Publications

Product cited in: Senden, Timmer, de Bruïne, Wagenaar, Van de Velde, Roebroek, Van de Ven, Broers, Ramaekers:

"A comparison of NSP-reticulons with conventional neuroendocrine markers in immunophenotyping of lung cancers." in: **The Journal of pathology**, Vol. 182, Issue 1, pp. 13-21, (1997) ([PubMed](#)).

van de Velde, Roebroek, Senden, Ramaekers, Van de Ven: "NSP-encoded reticulons, neuroendocrine proteins of a novel gene family associated with membranes of the endoplasmic reticulum." in: **Journal of cell science**, Vol. 107 (Pt 9), pp. 2403-16, (1995) ([PubMed](#)).

van de Velde, Senden, Roskams, Broers, Ramaekers, Roebroek, Van de Ven: "NSP-encoded reticulons are neuroendocrine markers of a novel category in human lung cancer diagnosis." in: **Cancer research**, Vol. 54, Issue 17, pp. 4769-76, (1994) ([PubMed](#)).

van de Velde, Roebroek, van Leeuwen, Van de Ven: "Molecular analysis of expression in rat brain of NSP-A, a novel neuroendocrine-specific protein of the endoplasmic reticulum." in: **Brain research. Molecular brain research**, Vol. 23, Issue 1-2, pp. 81-92, (1994) ([PubMed](#)).

Roebroek, van de Velde, Van Bokhoven, Broers, Ramaekers, Van de Ven: "Cloning and expression of alternative transcripts of a novel neuroendocrine-specific gene and identification of its 135-kDa translational product." in: **The Journal of biological chemistry**, Vol. 268, Issue 18, pp. 13439-47, (1993) ([PubMed](#)).