Datasheet for ABIN335375

anti-Reticulon 1A/B antibody

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Overview

Quantity:	0.1 mg
Target:	Reticulon 1A/B
Reactivity:	Human, Rabbit, Rhesus Monkey
Host:	Mouse
Clonality:	Monoclonal
Application:	Flow Cytometry (FACS), Immunohistochemistry (Frozen Sections) (IHC (fro)), Immunohistochemistry (IHC), Western Blotting (WB), Immunocytochemistry (ICC)

Product Details

Immunogen:	RNL-3 is a mouse monoclonal IgG1 antibody derived by fusion of SP2/0-Ag14 mouse myeloma cells with spleen cells from a BALB/c mouse immunized with the small cell lung cancer cell line NCI-H82.
Clone:	RNL-3
Isotype:	IgG1
Specificity:	Human, rabbit and rhesus monkey.
Purification:	Purified

Target Details

Target:	Reticulon 1A/B
Alternative Name:	Reticulon-1A/B / NSP-A/B
Background:	Recently, a novel gene family has been identified and characterized, designated the Reticulons

Target Details

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 sofar 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:	RNL-3 recognizes an epitope located within the region of amino acids 421-589 of the neuro-endocrine specific protein Reticulon-1A (NSP-A), which is also present in the N-terminal part of Reticulon-1B (NSP-B). In normal tissues, RNL-3 reacts with brain Purkinje cells, pancreatic islet cells, cells in the pituitary gland and some (peripheral) nerve fibers. In addition, a few epithelia show positive staining. RNL-3 is useful for immunocytochemistry, immunohistochemistry on frozen tissues, immunoblotting and flow cytometry. Optimal antibody dilution should be determined by titration, recommended range is 1:100 - 1:200 for flow cytometry, and for immunohistochemistry with avidin-biotinylated horseradish peroxidase complex (ABC) as detection reagent, and 1:100 - 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).

Senden, Timmer, Boers, van de Velde, Roebroek, Van de Ven, Broers, Ramaekers: " Neuroendocrine-specific protein C (NSP-C): subcellular localization and differential expression in relation to NSP-A." in: **European journal of cell biology**, Vol. 69, Issue 3, pp. 197-213, (1996) (PubMed).

Senden, van de Velde, Broers, Timmer, Roebroek, van de Ven, Ramaekers: "Cluster-10 lung-cancer antibodies recognize NSPs, novel neuro-endocrine proteins associated with membranes of the endoplasmic reticulum." in: **International journal of cancer. Supplement = Journal international du cancer. Supplement**, Vol. 8, pp. 84-8, (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).

Broers, Mijnheere, Rot, Schaart, Sijlmans, Boerman, Ramaekers: "Novel antigens characteristic of neuroendocrine malignancies." in: **Cancer**, Vol. 67, Issue 3, pp. 619-33, (1991) (PubMed).