

# Product datasheet for BM6041P

#### OriGene Technologies, Inc.

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## Reticulon 1 (RTN1) (Isoform RTN1-C) Mouse Monoclonal Antibody [Clone ID: RNL-4]

**Product data:** 

**Product Type:** Primary Antibodies

Clone Name: RNL-4

**Applications:** FC, IF, IHC, WB

Recommended Dilution: RNL-4 is suitable for Immunoblotting, Immunocytochemistry, Immunohistochemistry on

Frozen Sections and Flow Cytometry.

Recommended Dilutions: 1/50-1/100 for Flow Cytometry, and for Immunohistochemistry with avidin-biotinylated horseradish peroxidase complex (ABC) as detection reagent, and 1/100-

1/500 for Immunoblotting.

Reactivity: Human, Porcine, Rat

Host: Mouse Isotype: IgG1

Clonality: Monoclonal

Immunogen: Synthetic peptide encompassing the unique 20 N-terminal amino acid sequence of Reticulon-

1C.

**Specificity:** RNL-4 recognizes an epitope located within the first 20 amino acids of Reticulon-1C (NSP-C).

*RNL-4* reacts with peripheral nerves and ganglia of various tissues and cross-reacts with smooth muscle cells and myoepithelium. In the central nervous system it reacts with the

neurohypophysis and pars intermedia of the pituitary gland, and a weak

diffuse staining was observed in neurons of the granular and molecular layer of the cerebellar cortex, while glial cells, cerebellar medulla and Purkinje cells are negative.

Reticulon-1 has been found to indicate neuronal differentiation and to be downregulated in

neurological pathologies.

Formulation: PBS

State: Purified

State: Liquid purified IgG fraction Preservative: 0.09% Sodium Azide

**Concentration:** lot specific

Conjugation: Unconjugated



#### Reticulon 1 (RTN1) (Isoform RTN1-C) Mouse Monoclonal Antibody [Clone ID: RNL-4] - BM6041P

**Storage:** Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.

Avoid repeated freeze-thaw cycles.

**Stability:** Shelf life: One year from despatch.

**Gene Name:** reticulon 1

Database Link: Entrez Gene 6252 Human

Q16799

**Background:** Recently, a novel gene family has been identified and characterized, designated the

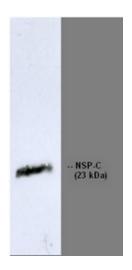
Reticulons because the proteins encoded by these genes are anchored to the membranes of the endoplasmic reticulum. Reticulon-1 was formerly designated NSP for Neuroendocrine-Specific-Protein, because it is specifically expressed in neural and neuroendocrine tissues. The NSP-gene has been mapped by fluorescence in situ hybridization to human chromosome 14q21-q22. The NSP-gene encodes three overlapping proteins, i.e. Reticulon-1A (NSPA),

Reticulon-1B (NSP-B), and Reticulon-1C (NSPC).

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).

**Synonyms:** Reticulon-1, RTN1, NSP, Neuroendocrine-specific protein

## **Product images:**



Immunoblotting of RNL-4 recognizing NSP-C Reticulon 1-C (23 kDa) in extract from neuroblastoma cell line LA-N-5.