1.800.457.3801     831.457.3800     fax 831.457.3801

van de Velde, H.J., et al. 1994. NSP-encoded reticulons are neuroendocrine
®

kappa light chain in 1.0 ml of PBS with <
Hens, J., et al. 1998. Neuronal differentiation is accompanied by NSP-C

BP-PE: sc-516140 or m-IgG

6

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®


BP-HRP: sc-516102 or m-IgG

Hard-set Mounting Medium: sc-359850. 4) Immuno-

mounting Medium: sc-45086, or Organo/Limonene Mount: sc-45087.

APPLICATIONS

Rtn-1A (MON161) is recommended for detection of Rtn-1A of mouse, rat,

human and hamster origin by Western Blotting (starting dilution 1:200, dilu-

tion range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of

total protein (1 ml of cell lysate)], immunofluorescence (starting dilution

1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-

embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and

flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for Rtn-1 siRNA (h): sc-42216, Rtn-1

siRNA (m); sc-42217, Rtn-1 shRNA Plasmid (h); sc-42216-SH, Rtn-1 shRNA

Plasmid (m): sc-42217-SH, Rtn-1 shRNA (h) Lentiviral Particles: sc-42216-V

and Rtn-1 shRNA (m) Lentiviral Particles: sc-42217-V.

Molecular Weight of Rtn-1A: 135 kDa.

Positive Controls: H69AR whole cell lysate: sc-364382, IMR-32 cell lysate:

sc-2409 or Rtn-1A (h); 293T Lysate: sc-111610.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG BP-HPR: sc-516102 or m-IgG BP-HPR (Cruz

Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™

Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent:

sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunopre-

cipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

3) Immunofluorescence: use m-IgG BP-FITC: sc-516140 or m-IgG BP-PB:

sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium:

sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immuno-

histochemistry: use m-IgG BP-HPR: sc-516102 with DAB, 50X: sc-24982

and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA

CHROMOSOMAL LOCATION

Genetic locus: RTN1 (human) mapping to 14q23.1; Rtn1 (mouse) mapping
to 12 C3.

SOURCE

Rtn-1A (MON161) is a mouse monoclonal antibody raised against amino

acids 174-337 of bacterially expressed Rtn-1A of human origin.

PRODUCT

Each vial contains 200 µg IgG; kappa light chain in 1.0 ml of PBS with < 0.1%

sodium azide and 0.1% gelatin.

Rtn-1A (MON161) is available conjugated to either phycoerythrin (sc-58587 PE)
or fluorescein (sc-58587 FITC), 200 µg/ml, for IF, IHC(P) and FCM.

BACKGROUND

The Reticulon (Rtn) family consists of four members: Rtn-1 (also designated
neuroendocrine-specific protein or NSP), Rtn-2 (also designated NSP-like-1),
Rtn-3 (also designated NSP-like-2) and Nogo (also designated Rtn-4A). Reti-
culon proteins are anchored to the membranes of the endoplasmic reticulum
through their common C-terminal regions. Localized on human chromosome
14q23.1, the gene encoding Rtn-1 is expressed as three isoforms: Rtn-1A
(NSP-A), Rtn-1B (NSP-B) and Rtn-1C (NSP-C), which are produced by alterna-
tive splicing, are anchored to the endoplasmic reticulum in neural and neuro-
endocrine tissues and cells, and may be involved in neuroendocrine secretion
or in membrane trafficking. In lung cancer diagnosis, Rtn-1A appears to be a
reliable marker for the detection of neuroendocrine differentiation, since most
of the small cell lung carcinoma (SCLC) and carcinoid tumors show expression
of Rtn-1A. Rtn-1B exists as multiple forms. Expression of Rtn-1C strongly
 correlates with neuronal differentiation.

REFERENCES

organization of neuroendocrine-specific protein B (NSP-B) in small cell

2. van de Velde, H.J., et al. 1994. NSP-encoded reticulons are neuroendocrine
54: 4769-4776.


4. Roebroek, A.J., et al. 1998. cDNA cloning, genomic organization and
expression of the human RTN2 gene, a member of a gene family encoding


family (RTN3): gene structure and chromosomal localization to 11q13.
Genomics 58: 73-81.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of
shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™
Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent:
sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunopre-
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3) Immunofluorescence: use m-IgG BP-FITC: sc-516140 or m-IgG BP-PB:
sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium:
sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immuno-
histochemistry: use m-IgG BP-HPR: sc-516102 with DAB, 50X: sc-24982
and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DOWNLOADS

Rtn-1A (MON161) sc-58587. Western blot analysis of Rtn-1 expression in non-transfected: sc-11752(A) and human Rtn-1 transfected: sc-111610 (B) 293T whole cell lysates.

Rtn-1A (MON161) sc-58587. Western blot analysis of Rtn-1 expression in H69AR whole cell lysate.