Qty: 200 µg/400 µl

Mouse anti-Neurofilament
-160/200 kD (NF-M+H)

Catalog No. 13-1300

Lot No. See product label

Mouse anti-Neurofilament-160/200 kD (NF-M+H)

FORM
This monoclonal antibody is provided as a 400 µl aliquot at 0.5 mg/ml in phosphate buffered saline containing 0.1% sodium azide (NaN_3). The antibody is purified from mouse ascites fluid.

CLONE: RMdO-20[2] **ISOTYPE:** Mouse IgG_1, kappa

IMMUNOGEN: Adult rat neurofilament

SPECIFICITY
This antibody reacts with the 160 & 200 kDa proteins of human neurofilament. It specifically recognizes a non-phosphorylated epitope in the tail domain of NF-M+H. Dephosphorylation of NF-M+H will increase immunoreactivity with this antibody. This antibody has been shown to also react with NF-H from human, rat, mouse, bovine rabbit, hamster, and squid [1].

REACTIVITY
Human, rat, mouse, bovine, rabbit, hamster and squid

USAGE
Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

Immunohistochemistry*[1,2]:	5-10 µg/ml
Immunoblotting[2,3]:	0.5-1.0 µg/ml
Immunoprecipitation[3]:	2-5 µg
ELISA:	0.1-0.5 µg/ml

*This antibody is suitable for immunohistochemical staining of Bouin's and alcohol-fixed paraffin-embedded or frozen tissue sections. To stain, incubate 30-60 minutes at room temperature or overnight at 4°C.

STORAGE
Store at 2-8°C for up to one month. Store at -20°C for long term storage. Avoid repeated freezing and thawing.

(cont'd)

BACKGROUND

Neurofilaments are intermediate (10-12nm) filaments located specifically in neurons. There are three classes of neurofilaments: NF-L (68 kDa), NF-M (160 kDa). And NF-H (200 kDa). The neurofilaments are long helical proteins, which polymerize to form a rigid cytoskeleton in the neuron. This polymerized network is composed of all three filaments, and the stoichiometry of association varies during development. Neurofilaments are posttranslationally modified both by phosphorylation and glycosylation. Like other intermediate filament proteins, phosphorylation likely mediates neurofilament dynamics. However, how O-linked N-acetylglucosamine residues function to modify neurofilament function remains unclear.

REFERENCES

1. Lee VM-Y et al; *PNAS* USA 85:7384-7388 (1988)
2. Lee VM-Y et al; *J Neurosci* 7:3474-3488 (1987)
3. Pleasure SJ et al; *J Neurosci* 10:2428-2437 (1990)
4. Pleasure SJ et al; *J Neurosci* 12:1802-1815 (1992)
5. Trojanowski JQ et al; *Mol Chem Neuropath* 17:121 (1992)
6. Trojanowski JQ. et al; Brain Pathol 3:45-54 (1993)
7. Schmidt ML et al; *Lab Invest* 56:282-294 (1987)
8. Schmidt ML et al; *Am J Pathol* 136:1069 (1990)
9. Carden MJ et al; *J Neurosci* 7:3489-3504 (1987)
10. Schmidt ML et al; *Am J Pathol* 139:53 (1991)

RELATED PRODUCTS

Product	***Clone***	***Cat. No.***
Ms x Neurofilament-68 kD (NF-L)	DA2	13-0400
Ms x Neurofilament-160 kD (NF-M)	RMO-270	13-0700
Ms x Neurofilament-200 kD (NF-H)	RMO-24	13-1000
Ms x Neurofilament-L+M+H (PAN)	RMO-24	18-0171
Ms x Neurofilament-160 kD (NF-M)	RMO-44	13-0500
Ms x Neurofilament-160 kD (NF-M)	RMO-281	13-0800

Product	***Conjugate***	***Cat. No.***
Goat anti-Mouse IgG (H+L)	Purified	81-6500
(ZyMAX™ Grade)	FITC	81-6511
	TRITC	81-6514
	Cy™3	81-6515
	Cy™5	81-6516
	HRP	81-6520
	AP	81-6522
	Biotin	81-6540
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

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