



Product Information Sheet

Monoclonal Anti-Neurofilament 68, NF68

Catalogue No. MA1070

Immunogen

Pig spinal cord.

Lot No. 08A12

Purification

Purified by the goat anti-mouse IgG affinity chromatography.

Clone: NF-68

Ig type: mouse IgG1

Application

Western blot

Size: 100µg/vial

At 1-2µg/ml with the appropriate system to detect NF68 in cells and tissues.

Specificity

Human, pig, rat.

Immunohistochemistry(P)

No cross reactivity with other proteins.

At 2-4µg/ml to detect NF68 in formalin fixed and paraffin embedded tissues.

Immunohistochemistry(F)

At 2-4µg/ml to detect NF68 in formalin or acetone fixed tissues.

Recommended application

Other applications have not been tested.

Western blot

Optimal dilutions should be determined by end user.

Immunohistochemistry(P)

Immunohistochemistry(F)

Formulation

Lyophilized from 1.2% sodium acetate, with 2mg BSA and 0.01mg NaN₃ as preservative.

Reconstitution

1.2% sodium acetate or neutral PBS. If 1ml of PBS is used, the antibody concentration will be 100µg/ml.

To reorder contact us at:

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Toll Free: 1(866)964-2589

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Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for longer time.

BACKGROUND

Neurofilaments are composed of 3 neuron-specific proteins with apparent molecular masses of 68 kD (NFL), 125 kD (NFM) and 200 kD (NFH) on SDS-gel electrophoresis. And they have a role in the maturation of regenerating myelinated axons. Neurofilament 68 (NF68), also called Neurofilament Protein, Light Chain (NFL). It is one of the most abundant cytoskeletal components of the neuron. Mutations in this gene were reported as a cause for autosomal dominant Charcot-Marie-Tooth type 2E (CMT2E) linked to chromosome 8p21. NFL was identified repeatedly in both screenings and found to interact with Myotubularin-related 2 gene, MTMR2 in both Schwann cells and neurons.

REFERENCE

1. Zhu, Q.; Couillard-Despres, S.; Julien, J.-P. : Delayed maturation of regenerating myelinated axons in mice lacking neurofilaments. *Exp. Neurol.* 148: 299-316, 1997.
2. Jordanova, A.; De Jonghe, P.; Boerkoel, C. F.; Takashima, H.; De Vriendt, E.; Ceuterick, C.; Martin, J.-J.; Butler, I. J.; Mancias, P.; Papasozomenos, S. C.; Terespolsky, D.; Potocki, L.; Brown, C. W.; Shy, M.; Rita, D. A.; Tournev, I.; Kremensky, I.; Lupski, J. R.; Timmerman, V. : Mutations in the neurofilament light chain gene (NEFL) cause early onset severe Charcot-Marie-Tooth disease. *Brain* 126: 590-597, 2003.
3. Previtali, S. C.; Zerega, B.; Sherman, D. L.; Brophy, P. J.; Dina, G.; King, R. H. M.; Salih, M. M.; Feltri, L.; Quattrini, A.; Ravazzolo, R.; Wrabetz, L.; Monaco, A. P.; Bolino, A. : Myotubularin-related 2 protein phosphatase and neurofilament light chain protein, both mutated in CMT neuropathies, interact in peripheral nerve. *Hum. Molec. Genet.* 12: 1713-1723, 2003.