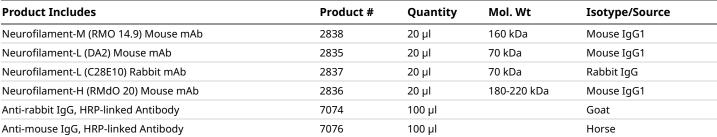
## **Neurofilament Antibody Sampler Kit** Store at -20C Orders: Support: 1 Kit (4 x 20 microliters) ò Web: For Research Use Only. Not for Use in Diagnostic Procedures.



Please visit cellsignal.com for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

Description	The Neurofilament Antibody Sampler Kit provides an economical means of evaluating neurofilaments. The kit contains enough primary and secondary antibodies to perform two western blot experiments per primary antibody.
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.
Background	The cytoskeleton consists of three types of cytosolic fibers: actin microfilaments, intermediate filaments, and microtubules. Neurofilaments are the major intermediate filaments found in neurons and consist of light (NFL), medium (NFM), and heavy (NFH) subunits (1). Similar in structure to other intermediate filament proteins, neurofilaments have a globular amino-terminal head, a central α-helical rod domain, and a carboxy-terminal tail. A heterotetrameric unit (NFL-NFM and NFL-NFH) forms a protofilaments are critical for radial axon growth and determine axon caliber, microtubules are involved in axon elongation. PKA phosphorylates the head domain of NFL and NFM to inhibit neurofilament assembly (3,4). Research studies have shown neurofilament accumulations in many human neurological disorders, including Parkinson's disease (in Lewy bodies along with α-synuclein), Alzheimer's disease, Charcot-Marie-Tooth disease, and Amyotrophic Lateral Sclerosis (ALS) (1).
Background References	1. Al-Chalabi, A. and Miller, C.C. (2003) <i>Bioessays</i> 25, 346-55. 2. Cohlberg, J.A. et al. (1995) <i>J Biol Chem</i> 270, 9334-9. 3. Hisanaga, S. et al. (1994) <i>Mol Biol Cell</i> 5, 161-72. 4. Sihag, R.K. et al. (1999) <i>J Neurochem</i> 72, 491-9.
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