**NF-L (8A1): sc-20012**

**BACKGROUND**
Neurofilament-L (NF-L), for neurofilament light polypeptide, a member of the intermediate filament family, is a major component of neuronal cytoskeletons. Neurofilaments are dynamic structures; they contain phosphorylation sites for a large number of protein kinases, including protein kinase A, protein kinase C, cyclin-dependent kinase 5, extracellular signal regulated kinase, glycogen synthase kinase-3, and stress-activated protein kinase. In addition to their role in the control of axon caliber, neurofilaments may affect other cytoskeletal elements, such as microtubules and Actin filaments. Changes in neurofilament phosphorylation or metabolism are frequently observed in neurodegenerative diseases, including amyotrophic lateral sclerosis (ALS), Parkinson’s disease and Alzheimer’s disease.

**CHROMOSOMAL LOCATION**
Genetic locus: NEFL (human) mapping to 8p21.2; Nefl (mouse) mapping to 14 D1.

**SOURCE**
NF-L (8A1) is a mouse monoclonal antibody raised against neurofilament purified from human brain.

**PRODUCT**
Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NF-L (8A1) is available conjugated to agarose (sc-20012 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-20012 HRP), 200 µg/ml, for WB, IF/ICC and ELISA; to either phycoerythrin (sc-20012 PE), fluorescein (sc-20012 FITC), Alexa Fluor® 488 (sc-20012 AF488), Alexa Fluor® 546 (sc-20012 AF546), Alexa Fluor® 594 (sc-20012 AF594) or Alexa Fluor® 647 (sc-20012 AF647), 200 µg/ml, for WB (RGB), IF, IF/ICC and FC/M; and to either Alexa Fluor® 680 (sc-20012 AF680) or Alexa Fluor® 790 (sc-20012 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FC/M.

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**APPLICATIONS**
NF-L (8A1) is recommended for detection of NF-L of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution 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) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).


Molecular Weight of NF-L: 68 kDa.

Positive Controls: mouse brain extract: sc-2253, SH-SY5Y cell lysate: sc-3812 or SK-N-SH cell lysate: sc-2410.

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

**DATA**

**SELECT PRODUCT CITATIONS**

**RESEARCH USE**
For research use only, not for use in diagnostic procedures.