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 γ. 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.

REFERENCES


CHROMOSOMAL LOCATION

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

SOURCE

NF-L (DA2) is a mouse monoclonal antibody raised against a preparation of enzymatically dephosphorylated neurofilaments of porcine origin.

PRODUCT

Each vial contains 250 µl culture supernatant containing IgG1 with < 0.1% sodium azide.

STORAGE

For immediate and continuous use, store at 4°C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

APPLICATIONS

NF-L (DA2) is recommended for detection of NF-L of mouse, rat, human, bovine and porcine origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:1000-1:5000), immunoprecipitation (1-2 µl per 100-500 µg of total protein [1 ml of cell lysate]) and immunofluorescence (starting dilution to be determined by researcher, dilution range 1:10-1:200).


Molecular Weight of NF-L: 68 kDa.


DATA

NF-L (DA2): sc-58559. Western blot analysis of NF-L expression in rat brain tissue extract.

NF-L (DA2): sc-58559. Immunofluorescence staining of methanol-fixed adult rat brain cells showing neuronal localization (green).

SELECT PRODUCT CITATIONS