

p-NF-H (RNF404): sc-32728

BACKGROUND

Neurofilament-H (for neurofilament heavy polypeptide, or NF-H), 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 amotrophic lateral sclerosis (ALS), Parkinson's disease, and Alzheimer's disease.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: NEFH (human) mapping to 22q12.2; Nefh (mouse) mapping to 11 A1.

SOURCE

p-NF-H (RNF404) is a mouse monoclonal antibody raised against a neurofilament NF-H protein isolated from a cytoskeletal preparation from brain tissue homogenate of calf origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

p-NF-H (RNF404) is recommended for detection of phosphorylated NF-H of mouse, rat, human, *Xenopus laevis* and bovine origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for NF-H siRNA (h): sc-42068, NF-H siRNA (m): sc-42069, NF-H shRNA Plasmid (h): sc-42068-SH, NF-H shRNA Plasmid (m): sc-42069-SH, NF-H shRNA (h) Lentiviral Particles: sc-42068-V and NF-H shRNA (m) Lentiviral Particles: sc-42069-V.

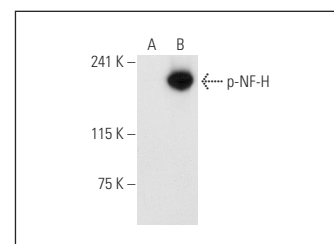
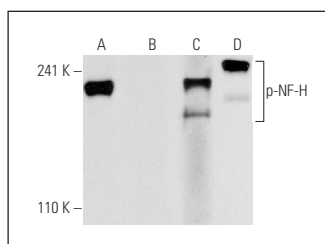
Molecular Weight of p-NF-H: 200 kDa.

Positive Controls: NF-H (h): 293T Lysate: sc-111457, rat brain extract: sc-2392 or mouse brain extract: sc-2253.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Lambda Phosphatase: sc-200312A and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Western blot analysis of NF-H phosphorylation in untreated (A, C) and lambda protein phosphatase (sc-200312A) treated (B, D) rat brain tissue extracts. Antibodies tested include p-NF-H (RNF404): sc-32728 (A, B) and NF-H (2D2): sc-20014 (C, D).

p-NF-H (RNF404): sc-32728. Western blot analysis of NF-H phosphorylation in non-transfected: sc-117752 (A) and human NF-H transfected: sc-111457 (B) 293T whole cell lysates.

STORAGE

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

RESEARCH USE

For research use only, not for use in diagnostic procedures.