PrP (H-8): sc-393165

BACKGROUND

Prion diseases, or transmissible spongiform encephalopathies (TSEs), are manifested as genetic, infectious or sporadic, lethal neurodegenerative disorders involving alterations of the prion protein (PrP). Characteristic of prion diseases, cellular PrP (PrPc) is converted to the disease form, PrPSc, through alterations in the protein folding conformations. PrPc is constitutively expressed in normal adult brain and is sensitive to proteinase K digestion, while the altered PrPSc conformation is resistant to proteinases, resulting in a distinct molecular mass after PK treatment. Consistent with the transient infection process of prion diseases, incubation of PrPc with PrPSc both in vitro and in vivo produces PrPc that is resistant to protease degradation. Infectious PrPSc is found at high levels in the brains of animals affected by TSEs, including scrapie in sheep, BSE in cattle and CJD in humans.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: PRNP (human) mapping to 20p13.

SOURCE

PrP (H-8) is a mouse monoclonal antibody raised against amino acids 1-253 representing full length PrP of human origin.

PRODUCT

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

PrP (H-8) is recommended for detection of PrP of human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PrP siRNA (h): sc-36318, PrP shRNA Plasmid (h): sc-36318-SH and PrP shRNA (h) Lentiviral Particles: sc-38318-V.

Molecular Weight of PrP: 30 kDa.

Positive Controls: human brain hippocampus tissue extract.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG BP-HRP (Cruz Marker); sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™
2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
3) Immunofluorescence: use m-IgG BP-FITC: sc-516140 or m-IgG BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz®

DATA

![PrP (H-8): sc-393165. Western blot analysis of PrP expression in human hippocampus tissue extract.](image1)

![PrP (H-8): sc-393165. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lateral ventricle tissue showing nuclear staining of neuronal cells and glial cells.](image2)

SELECT PRODUCT CITATIONS


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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

See PrP (5B2): sc-47730 for PrP antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.