**PrP (8B4): sc-47729**

**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 proteases, 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 PrP 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 Creutzfeldt-Jakob disease in humans.

**CHROMOSOMAL LOCATION**

Genetic locus: PRNP (human) mapping to 20p13; Prnp (mouse) mapping to 2 F2.

**SOURCE**

PrP (8B4) is a mouse monoclonal antibody raised against full length recombinant mouse PrP with epitope mapping near the N-terminus of mouse origin.

**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.

PrP (8B4) is available conjugated to agarose (sc-47729 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-47729 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-47729 PE), fluorescein (sc-47729 FITC), Alexa Fluor® 488 (sc-47729 AF488), Alexa Fluor® 546 (sc-47729 AF546), Alexa Fluor® 594 (sc-47729 AF594) or Alexa Fluor® 647 (sc-47729 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-47729 AF680) or Alexa Fluor® 790 (sc-47729 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

PrP (8B4) is recommended for detection of PrP of mammalian 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10^6 cells) 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 siRNA (m): sc-36319, PrP shRNA Plasmid (h): sc-36318-SH, PrP shRNA Plasmid (m): sc-36319-SH, PrP shRNA (h) Lentiviral Particles: sc-36318-V and PrP shRNA (m) Lentiviral Particles: sc-36319-V.

Molecular Weight of PrP: 30 kDa.

**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.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.