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Catalog No. 65-904EX

Anti-Prion protein antibody, mouse monoclonal (7A1)

BACKGROUND

Prion protein PrP is a membrane glycosylphosphatidylinositol(GPI) anchored glycoprotein highly expressed in neuron and glia cells as well as immune and reproductive cells. Mutations in the octapeptide repeat regions as well as elsewhere in this gene have been associated with neurodegenerative diseases such as Creutzfeldt Jakob disease, fatal familial insomnia, Gerstmann Straussler disease, Huntington disease like 1, and kuru. The infectious isoform of PrP^{C}, known as PrP^{Sc}, is able to convert normal PrP^{C} proteins into the infectious isoform, which is insoluble amyloid aggregate, by changing their conformation (1).

Mature PrP protein in human consists of 209 amino acids. Several topological forms exist; one cell surface form anchored via glycolipid and two transmembrane forms, which are responsible for appearance of multiple bands in SDS-PAGE (Figure).

Applications

1) Western blotting (~0.5 µg/ml) 2) ELISA Other applications have not been tested.

Immunogen: Recombinant human PrP lacking GPI anchor expressed and purified from rabbit kidney cell line RK13.

Reactivity: Reacts with human Prion but not with mouse Prion. Other species have not been tested.

Antibody: Mouse monoclonal antibody, IgG1 kappa. The hybridoma was established in the laboratory of Prof. N. Kitamoto at University of Hyogo.

Form: Purified IgG 1 mg/ml in PBS(-), 50% glycerol, filter-sterilized (azide-free)

Size: 250 ug

Storage: Sent at 4℃ or at －20℃ and upon arrival, centrifuge briefly, and store at -20℃

Data Link: UniProtKB/Swiss-Prot P04156

References: This antibody has been used in Ref. 1

1. Sakudo A *et al* "GPI-anchorless human prion protein is secreted and glycosylated but lacks superoxide dismutase activity" *Int J Mol Med* **21**: 217-222 (2008) PMID: 18204788

Related Product: 65-901EX anti-Prion antibody, clone 2C5-5 (most suitable for ELISA)

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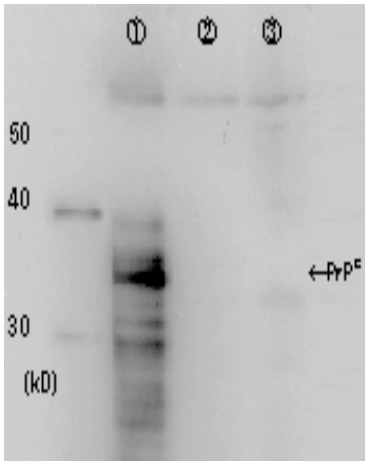

Figure Identification of Prion protein in crude cell extract by Western blotting using the monoclonal antibody 7A1.

Lane 1: Extract of rabbit kidney cells RK13 over-expressing Prion protein
Lane 2: Negative control; extract of the vector infected cells
Lane 3: Negative control; extract of RK13 cells

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