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

65-903　　50 µg

Shipping and Storage: Shipped at 4℃ or -20℃ and store at -20℃.

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

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

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

Applications

1) Western blotting (~0.5 µg/ml)　　2) ELISA

Other applications have not been tested.

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).

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

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 secretedand glycosylated but lacks superoxide dismutase activity" *Int J Mol Med* **21**: 217-222 (2008) PMID: 18204788

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

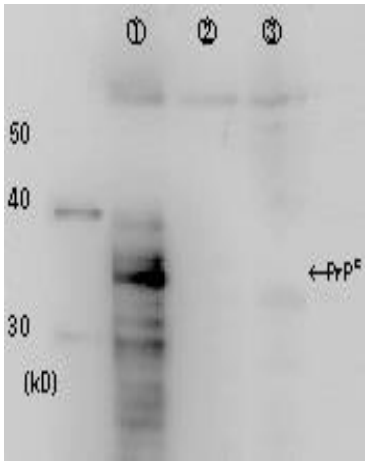

Figure Identification of Prion protein in crude cell extract by Western blotting using the monoclonal antibody 2C5-5.

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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