

Antibody for detection of prion proteins (1E4)

A monoclonal antibody with high affinity for proteinase K digested PrP^{Sc}

McAb 1E4 has its epitope at position 108-119 of the bovine prion protein.

In contrast to many other antibodies 1E4 has a very broad species reactivity. This enables the detection of prion proteins in biological samples of many species including mouse adapted BSE (301V)-infected mice, scrapie-infected sheep, scrapie infected hamster (263K), CWD infected deer, sCJD- and vCJD-infected human on Western blots.

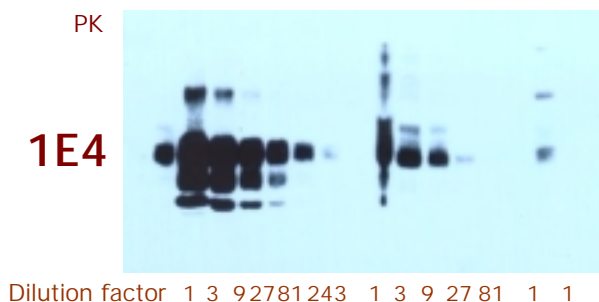
The special feature of McAb 1E4 is that its epitope is mostly hidden on non-digested prion proteins, but after Proteinase K digestion the epitope becomes better available on protease resistant PrP^{Sc} which results in a significant signal increase.

Species reactivity of various PrP McAb's

McAb	Immunogen	Human	Bovine	Ovine	Hamster	Murine
1E4	bovine peptide	+	+	+	+	+
3F4	Hamster PrP ^{Sc}	+	-	-	+	-
6H4	rec bovine PrP	+	+	+	+/-	+/-
P4	ovine peptide	-	+	+	-	-
KG9	rec bovine PrP	+	+	-	-	-

- 1E4 has a broad species reactivity

Western Blot analysis of PrP^C and PrP^{Sc} in healthy and BSE infected cattle brain.



- 1E4 weakly binds PrP^C
- 1E4 better binds PrP^{Sc},
- after digestion with PK the affinity dramatically improves
- 1E4 has a preference for binding proteinase K digested PrP^{Sc}



- 6H4 equally binds PrP^C and PrP^{Sc}
- After digestion antibody affinity appears the same

Immunogen **CGGQWNKPSKPKTN** (bovine PrP₁₀₈₋₁₁₉)
 Isotype **Mouse IgG1 K**
 Art. No. **RDI-M1839clb** \$350.00/vial
 Presentation **vial, contains: 250 µl (conc. 0.5 mg/ml).**

Applications: Western blot, ELISA, RIA, dot-blot, EliBlot*, FACS, immunohistochemistry.

* EliBlot, a new prion detection technique developed by Sanquin Research (van Oers *et al* 2005, submitted)

1E4 allows prion research in many immunological techniques across a broad range of species

also available:

Biotin conjugated cat#RDI-M1840clb \$450.00
HRP conjugated cat#RDI-M1841clb \$450.00
Goat anti-Prion cat#RDI-PrionabG \$250.00/0.25ml
For In Vitro Research Use Only

Sanquin Reagents

Order through:

Research Diagnostics Inc

Pleasant Hill Road

Flanders NJ 07836

Phone 973-584-7093

Fax 973-584-0210

email: sales@researchd.com

web: <http://www.researchd.com>