anti-Prion, HRP

Art.no	RDI-M1841clb $450.00
Clone	1E4 This clone was derived from hybridization of SP2/0-Ag14 myeloma cells with spleen cells of a $Prnp^{0/0}$ mouse immunized with the peptide GQWNKPSKPKTN#(corresponding to the bovine PrP AA sequence 108-119; # = amidated carboxy-terminus).
Isotype	IgG1 *K*
Source	Culture supernatant
Purification	Protein A affinity chromatography
Conjugation	The monoclonal antibodies were conjugated to HRP by a modified way of the procedure according to Wilson and Nakan**e.**
Packing	Each vial contains 250 µl (conc. 0.5 mg/ml) in 20 mM TRIS, 150 mM NaCl and 1% BSA.
Preservative	Merthiolate (0.001%)
Storage and stability	Storage at -18°C to -32°C is recommended. Do not freeze and thaw more than three times. The reagent is guaranteed to remain stable until the expiry date stated on the vial label.
Major reactivity	Monoclonal antibody 1E4 was isolated from hybridoma's generated from spleen cells of a $Prnp^{0/0}$ mouse, immunized with peptide GQWNKPSKPKTN# (corresponding to the bovine PrP aminoacid sequence 108-119; # = amidated carboxy-terminus) coupled to KLH at its N-terminal end via a CG-AA linker. The clone was selected due to its specific binding behaviour; on Western blot a strong binding reaction was found to BSE brain homogenates digested with Proteinase K. This was in contrast with a weak binding to undigested BSE brain homogenates, suggesting that 1E4 has a higher affinity for Proteinase K cleaved $PrP^{27\text{-}30}$ than for the non-cleaved PrP^{Sc}. Furthermore the Western blot also revealed a weak binding onto non-digested brain homogenate from a normal cow. This is in contrast with other commercially available antibodies, most of which express a similar affinity for both PrP conformers and cleaved $PrP^{27\text{-}30}$. Beside BSE infected cattle, MAb 1E4 also reacted with prions from mouse adapted BSE (301V)-infected mice, scrapie-infected sheep, scrapie infected hamster (263K), CWD infected deer, sCJD- and vCJD-infected human on Western blots. However the striking difference between the affinity for cleaved and non-cleaved PrP^{Sc} observed for BSE in cattle is not observed in these samples.
Molecular mass	The molecular weight of both PrP^{C} and PrP^{Sc} is 30-35 kD; after digestion with protease, PrP^{Sc} becomes $PrP^{27\text{-}30}$ (27-30 kD).
Application	Prion research on biological samples, body fluids, cells, tissue sections and homogenates, capturing or detecting antibody in immunoassays
Methods	Western blot, RIA, ELISA, EliBlot, immunohistochemistry.