

PRNP

Mouse Anti-Bovine Prion Protein Clone 1E4 mAb

Catalog No.	M1839	Quantity:	125 µl
Alternate Names:	PrP, AltPrP		
Description:	Mouse Anti-Bovine Prion Protein Clone 1E4 mAb		
Concentration:	0.5 mg/mL		
Gene ID:	281427		
Specificity:	The epitope recognized by 1E4 is amino acid 108-119 of the bovine prion protein sequence i.e. the N-terminal part of the protease K-resistant PrP ²⁷⁻³⁰ fragment.		
Host:	Mouse		
Immunogen:	The 1E4 clone was derived from hybridization of SP2/0-Ag14 myeloma cells with spleen cells from a mouse immunized with the peptide QWNKPSKPKTN#. This peptide corresponds to the bovine prion protein aa sequence 108-119 with an amidated carboxy-terminus (represented by the # sign) coupled to KLH at its N-terminal end via a CG-AA linker.		
Isotype:	IgG1k		
Clone:	1E4		
Molecular Weight:	The molecular mass of both PrP ^C and PrP ^{Sc} is 30-35 kDa. After digestion with protease K, PrP ^{Sc} becomes PrP ²⁷⁻³⁰ (27-30 kDa).		
Formulation:	Liquid in PBS + 0.001% Merthiolate		
Purification:	Protein A affinity chromatography		
Cross-Reactivity:	In contrast to many other antibodies used for detection of prion protein, 1E4 has a broad species reactivity. Detection of prion protein has been demonstrated with Western blot for human, cattle, sheep, deer, mice and hamster.		
Applications:	Western blot, ELISA, RIA, Flow Cytometry, and Immunohistochemistry.		
Application Notes:	<p>Prion research on biological samples, body fluids, cells, tissue sections and homogenates, capture or detection antibody in immunoassays.</p> <p>A special feature of 1E4 is that its epitope is almost hidden on non-digested bovine PrP^{Sc}, but after Proteinase K digestion the epitope becomes available resulting in a significant increased detection. McAb 1E4 is particularly suitable for immunohistochemical detection of prions characterized by a highly specific staining without any significant background as has been demonstrated for BSE in cattle and Scrapie in sheep.</p>		
Storage & Stability:	Store in aliquots at -20°C to -80°C is recommended. The reagent is guaranteed to remain stable until the expiration date stated on the vial label. Avoid repeated freeze-thaw cycles.		

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