Veterinary Medical Research & Development

CERTIFICATE OF ANALYSIS

F99

(Cell Culture Supernatant) Monoclonal Antibody

Catalog No. / Cell Line:	F99/97.6.1
Lot:	P110524-001
Isotype:	IgG1



Specificity:

Recognizes a conserved epitope (QYQRES) on the ruminant prion protein in tissues from sheep, cattle, mule deer, elk and white-tailed deer. Agents of transmissible spongiform encephalopathies (TSEs), including sheep scrapie, bovine spongiform encephalopathy (BSE), and chronic wasting disease (CWD).

Known Applications:

Detecting agents of TSEs in ruminant species. Techniques include immunoassays of fresh and formalin-fixed tissues, including Western immunoblot (performs better than F89/160.1.5), immunohistochemistry, and ELISA.

Description:

This monoclonal antibody is produced as cell culture supernatant, clarified by centrifugation, and filtered through a 0.2 μ m filter. The antibody concentration is 1.0 mg/ml, in phosphate-buffered saline (PBS), stabilized with 4 mg/ml bovine serum albumin (BSA), and preserved with 0.09% sodium azide (NaN₃).

Quality Control Method:

F99/97.6.1 cell max was evaluated by immunohistochemistry (IHC) of brain and lymphoid tissues from scrapie-infected sheep, and a negative tissue sample from a sheep with no known exposure to scrapie. The antibody was diluted to 1.0 μ g/ml and run according to the kit insert for VMRD Bovine Spongiform Encephalopathy Antigen Test Kit, Immunohistochemistry (catalog no. 298). The concentration was tested in RID with a mouse Immunoglobulins kit IgG₁.

Specific Reaction: There was no staining of the tissue from the sheep with no exposure to scrapie. Staining for the scrapie-infected sheep was 4+ on the brain tissue and 2-3+ on the lymphoid tissue. RID results showed a concentration of 1.4 mg/ml.

Other Comments: NA

Storage:

When the vial is stored at 2-7°C, it should be stable for one year.

References:

- O'Rourke, K.I., *et al.* Preclinical diagnosis of scrapie by immunohistochemistry of third eyelid lymphoid tissue. *J. Clin. Microbiol.* 38(9):3254-3259 (Sept. 2000).
- Spraker, T.R., *et al.* Validation of monoclonal antibody F99/97.6.1 for immunohistochemical staining of brain and tonsil in mule deer (*Odocoileus hemionus*) with chronic wasting disease. *J. Vet. Diagn. Invest.* 14(1):3-7 (Jan. 2002).

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- Herrmann, L.M., *et al.* CD21-positive follicular dendritic cells: A possible source of PrP^{Sc} in lymph node macrophages of scrapie-infected sheep. Am. J. Pathol. 162(4):1075-1081 (Apr. 2003).
- O'Rourke, K.I., et al. Abundant PrP(CWD) in tonsil from mule deer with preclinical chronic wasting disease. J. Vet. Diagn. Invest. 15(4):320-323 (July 2003).
- Nonno, R., *et al.* Molecular analysis of cases of Italian sheep scrapie and comparison with cases of bovine spongiform encephalopathy (BSE) and experimental BSE in sheep. *J. Clin. Microbiol.* 41(9):4127-4133 (Sept. 2003).
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- Hamir, A.N., *et al.* Experimental transmission of chronic wasting disease agent from mule deer to cattle by the intracerebral route. *J. Vet. Diag. Invest.* 17(3):276-281 (May 2005).
- Casalone, C., *et al.* Pathological prion protein in the tongues of sheep infected with naturally occurring scrapie. *J. Virol.* 79(9):5847-5849 (May 2005).
- Kim, T.-Y., et al. Additional cases of chronic wasting disease in imported deer in Korea. J. Vet. Med. Sci. 67(8):753-759 (Aug. 2005).
- Hamir, A.N., *et al.* First and second cattle passage of transmissible mink encephalopathy by intracerebral inoculation. *Vet. Pathol.* 43(2):118-126 (Feb. 2006).