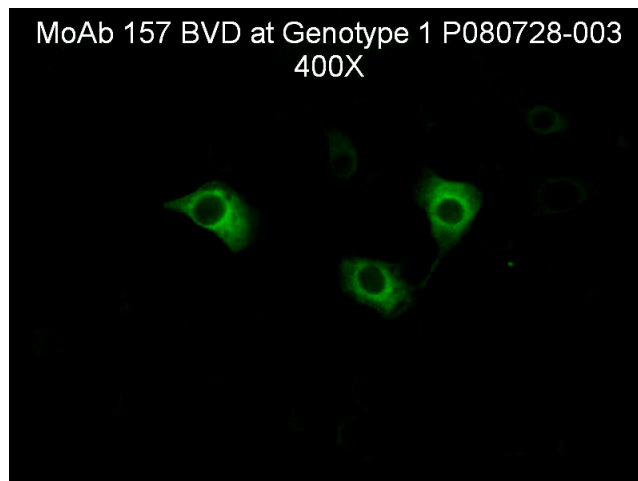


CERTIFICATE OF ANALYSIS

157

Monoclonal Antibody

Catalog No. / Cell Line:	157
Lot:	P080728-003
Isotype:	IgG _{2a}



Specificity:

Binds to the E2 (gp53) protein of type 1 Bovine Viral Diarrhea Virus (BVDV1). This monoclonal antibody binds specifically to BVDV1, and not BVDV2.

Note: BVDV1 genotypes usually produce only mild diarrhea in immunocompetent cattle, while BVDV2 genotypes can produce thrombocytopenia, hemorrhages, and acute fatal disease. The viruses of either genotype may exist as one of two biotypes, cytopathic or noncytopathic.

Known Applications:

Can be used as a typing reagent for BVDV1 using indirect immunofluorescence or indirect immunoperoxidase reactions. This monoclonal antibody has also been used in virus neutralization assays.

Description and Handling:

This monoclonal antibody is produced as mouse ascites fluid, clarified by centrifugation, and filtered through a 0.2 µm filter. The concentration is 1.0 mg/ml in phosphate-buffered saline, preserved with sodium azide.

Storage:

When the vial is stored at 2-8°C, it should be stable for one year.

Quality Control Method (VMRD QC 1663):

Indirect FA using BVDV Type 1 (Modderman) slide (VMRD catalog no. SLD-IFA-BVD), Type 2 (TN 131) slide, and Sigma Sheep anti-mouse IgG (whole molecule).

Result: 2-4+ positive fluorescence at 1:100 dilution in FA Conjugate Diluting Buffer (VMRD catalog no. 210-91-CB) on BVDV Type 1; negative on BVDV Type 2 at 1:10 dilution.

Other Reactions or Comments: None.

References:

- Deregt, D., *et al.* Monoclonal antibodies to the E2 protein of a new genotype (type 2) of bovine viral diarrhea virus define three antigenic domains involved in neutralization. *Virus Res.* 57(2):171-181 (Oct. 1998).
- Deregt, D., and S. Prins. A monoclonal antibody-based immunoperoxidase layer (microisolation) assay for detection of type 1 and type 2 bovine viral diarrhea viruses. *Can. J. Vet. Res.* 62(2):152-155 (Apr. 1998).
- Deregt, D., *et al.* Mapping of a type 1-specific and a type-common epitope on the E2 (gp53) protein of bovine viral diarrhea virus with neutralization escape mutants. *Virus Research* 53(1): 81-90 (Jan. 1998).

References Continued on Back

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- Deregt, D., *et al.* Monoclonal antibodies to bovine viral diarrhea virus: Cross-reactivities to field isolates and hog cholera virus strains. *Can. J. Vet. Res.* 58:71-74 (1994).
- Deregt, D., *et al.* Monoclonal antibodies to the p80/125 and gp53 proteins of bovine viral diarrhea virus: Their potential use as diagnostic reagents. *Can. J. Vet. Res.* 54:343-348 (1990).