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## Certificate of Analysis

### Monoclonal Antibody

**Cell Line:** BA-2  
**Specificity:** Binds to the E2 (gp53) protein of type 2 Bovine Viral Diarrhea Virus (BVDV2). Reacts primarily with BVDV2 viruses.

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

**Isotype:** IgG<sub>2a</sub>  
**Lot No.:** 03/09/01

**Known Applications:** Can be used as a typing reagent for BVDV2 using indirect immunofluorescence or indirect immunoperoxidase reactions. This monoclonal antibody has been reported to be reactive in western blots.

#### 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 Research* 57:171-181, 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.* 62:152-155, 1998.

**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 QC640):** Indirect FA using BVDV Type 1 (Modderman) slide (VMRD catalog no. 210-88-10-BVD), Type 2 (TN 131) slide, and sheep anti-mouse IgG (whole molecule).

**Result:** 3+ positive fluorescence at 1:100 dilution in FA Conjugate Diluting Buffer (VMRD catalog no. 210-91-CB) on BVDV Type 2; negative at 1:10 on BVDV Type 1.

**Other Reactions or Comments:** Trace background.

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