

CERTIFICATE OF ANALYSIS

BA-26(A)

Monoclonal Antibody

<b>Catalog No. / Cell Line:</b>	BA-26(a)
<b>Lot:</b>	1205
<b>Isotype:</b>	IgG <sub>1</sub>

**Specificity:**

Binds to the E2 (gp53) protein of type 1 Bovine Viral Diarrhea Virus (BVDV1) and to type 2 Bovine Viral Diarrhea Virus (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 reagent to detect both BVDV1 and BVDV2 using indirect immunofluorescence or indirect immunoperoxidase reactions. Does not work with formalin-fixed tissues.

**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, containing 4 mg/ml BSA, preserved with 0.09% sodium azide.

**Storage:**

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

**Quality Control Method (VMRD QC1928):**

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:** 2-4+ positive fluorescence at 1:100 dilution in FA Conjugate Diluting Buffer (VMRD catalog no. 210-91-CB) on BVDV Type 1; 3-4+ positive at 1:100 dilution on BVDV Type 2.

**Other Reactions or Comments:** Trace background on BVDV2.

**References:**

- 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).
- Deregt, D., and S. Prins. A monoclonal antibody-based immunoperoxidase layer (micro-isolation) 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.* 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(2):171-181 (Oct. 1998).

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29 December 2005