

**CERTIFICATE OF ANALYSIS**

348

Monoclonal Antibody

|              |                             |
|--------------|-----------------------------|
| Catalog No.: | 348                         |
| Lot:         | P140203-001                 |
| Isotype:     | IgG <sub>2b</sub>           |
| Expiration:  | 1 year when stored at 2-7°C |

**Specificity:**

Bovine Viral Diarrhea Virus Type 1&2 (BVDV-1&2) MAb  
Ascites E2 gp53 IgG<sub>2b</sub> Isotype.

**Known Applications:**

Can be used as a reagent to detect both BVDV-1 and BVDV-2 using indirect immunofluorescence or indirect immunoperoxidase reactions. This monoclonal antibody has also been used in virus neutralization assays.

**Description:**

This monoclonal antibody is produced as mouse ascites fluid, clarified by centrifugation, and filtered through a 0.2 µm 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 (NaN<sub>3</sub>).

**Quality Control Method:**

Indirect FA using BVDV-1 (Modderman) 12-well (in house slide), isotype control IgG<sub>2b</sub>, and anti-murine affinity purified conjugate (catalog no. CJ-F-MURG-AP-1ML or 10ML). Mouse immunoglobulins IgG<sub>2b</sub> kit.

**Specific Reaction:** 2-3+ fluorescence at 10 µg/ml with an endpoint titer less than 0.01 µg/ml. The isotype control was negative with no background. The RID results showed a concentration of 0.944 mg/ml.

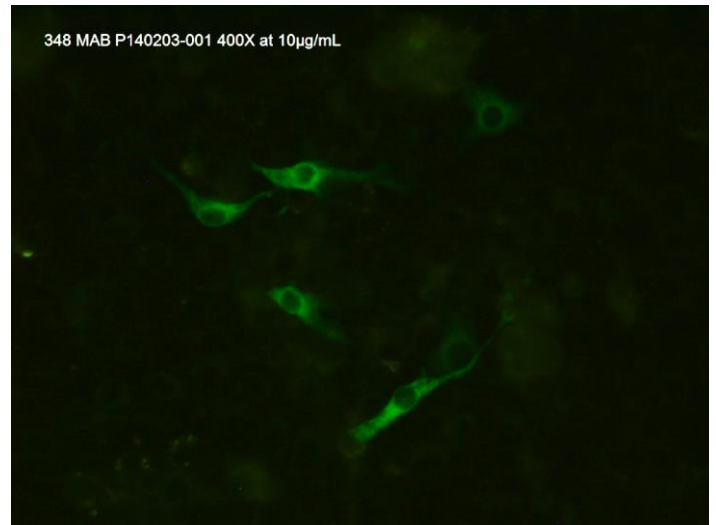
**Other Comments:** NA

**Pattern Of Fluorescence:**

Individual cells with smooth, undifferentiated and/or "ground glass" cytoplasmic fluorescence.

**Storage:**

This monoclonal antibody is provided in liquid form and should be stored at 2-7°C. DO NOT FREEZE!



## References:

- 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).
- 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.* 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 Res.* 57(2):171-181 (Oct. 1998).
- Kelling, C.L., *et al.* Characterization of protection from systemic infection and disease by use of a modified-live noncytopathic bovine viral diarrhea virus type 1 vaccine in experimentally infected calves. *Am. J. Vet. Res.* 66(10):1785-1791 (Oct. 2005).
- Topliff CL, *et al.* Prevalence of bovine viral diarrhea virus infections in alpacas in the United States. *J Am Vet Med Assoc.* 2009 Feb 15;234(4):519-29.