



**VMRD**

PO Box 502, Pullman, WA 99163 USA

Telephone: 509-334-5815

Fax: 509-332-5356

E-mail: [vmrd@vmrd.com](mailto:vmrd@vmrd.com)

Web site: <http://www.vmrd.com>

## Certificate of Analysis

### **INFECTIOUS BOVINE RHINOTRACHEITIS VIRUS/BOVINE HERPESVIRUS TYPE 1 (IBR/BHV-1)**

*FA Control Slide*

**CATALOG NO.:** SLD-FAC-IBR

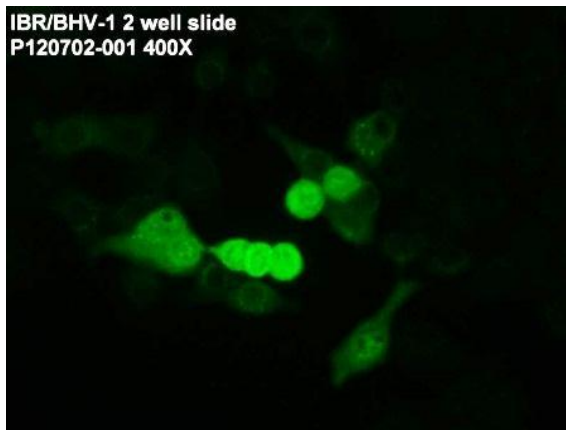
**SIZE:** 2 Well

**WELL CAPACITY:** 50  $\mu$ l

**LOT:** P120702-001

**EXPIRATION:** 03 May 2020

IBR/BHV-1 2 well slide  
P120702-001 400X



**AGENT:** Infectious bovine rhinotracheitis virus/bovine herpesvirus type 1 (IBR/BHV-1)

**STRAIN:** Kentucky

**CELL CULTURE SUBSTRATE:** MDBK cells

**DESCRIPTION:** Slides are virus-infected cell cultures grown on the surface of Teflon-masked slides. They are supplied fixed and unstained in moisture-free foil pouches. Each slide contains one positive and one negative cell culture well. The positive well contains both positive and negative cells. The positive cells usually total no more than 30% of the cells in the well so that good contrast may be seen.

**QUALITY CONTROL METHOD:** Direct FA using VMRD, Inc. IBR/BHV-1 FA Conjugate (catalog no. CJ-F-IBR-10ML).

**Specific Reaction:** 3-4+ signal on the positive well and negative on the negative well with trace background. There are 0 to 10 infected cells per high power field.

**Other Comments:** NA

**PATTERN OF FLUORESCENCE:** Primarily undifferentiated cytoplasmic with some nuclear fluorescence, especially in rounded cells and degenerating cells in plaques with acellular centers.

**INTENDED USE:** For positive and negative control of direct or indirect FA tests for IBR/BHV-1.

**STORAGE:** Store sealed in foil pouch at -20°C. Avoid self-defrosting freezers.

**REFERENCES:** NA

FOR *IN VITRO* LABORATORY USE ONLY.

**WARRANTY:** VMRD, Inc. warrants that this product is as described in the quantity and contents stated on the label at the time of delivery to the customer. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE MADE BEYOND THE LABEL DESCRIPTION, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE. Remedy is limited to replacement of the product or refund of the purchase price. VMRD, Inc. is not liable for property damage, personal injury, or economic loss caused by the product. The information listed in this information sheet is provided for reference only, and should not be substituted for the user's own incoming material quality control.

H:\Quality\COA (VMRD)\2-well Slides\IBR\SLD-FAC-IBR\_P120702-001\_200503.docx  
04 May 2016

**RECOMMENDED STAINING PROCEDURE FOR INDIRECT FA:**

1. Warm slide to room temperature before removing from foil pouch.
2. Place diluted serum on the designated wells. Dilute serum in serum diluting buffer, pH 7.2 (catalog no. FASDB-100ML) however if high background due to anti-bovine IgG activity is present it may be advisable to use SSDB-100ML.
3. Incubate slide in humid chamber at 37°C for 30 minutes.
4. Using a wash bottle, gently rinse slide briefly in FA rinse buffer, pH 9.0 (catalog no. FARB-4X) and then soak for 10 minutes in FA rinse buffer, pH 9.0.
5. Drain slide and dry around wells by pressing blotter (included in pouch) to front surface. Place labeled anti-IgG or IgM on the wells.
6. Incubate as in step 3.
7. Rinse as in step 4.
8. Drain slide and dry back and edges with a paper towel. Do not allow stained surface to dry. Do not rinse with water.
9. Mount with mounting fluid [glycerol/FA rinse buffer, pH 9.0, (50/50)] (catalog no. FAMF-10ML) and view with good quality fluorescence microscope at 100X-250X. Confirmation may be made at 400X.

**RECOMMENDED STAINING PROCEDURE FOR DIRECT FA:**

1. Warm slide to room temperature before removing from foil pouch.
2. Place of direct FA conjugate on the designated wells.
3. Incubate slide in humid chamber at 37°C for 30 minutes.
4. Using a wash bottle, gently rinse slide briefly in FA rinse buffer, pH 9.0 (catalog no. FARB-4X) and then soak for 10 minutes in FA rinse buffer, pH 9.0.
5. Drain slide and dry back and edges with a paper towel. Do not allow stained surface to dry. Do not rinse with water.
6. Mount with mounting fluid [glycerol/FA rinse buffer, pH 9.0, (50/50)] (catalog no. FAMF-10ML) and view with good quality fluorescence microscope at 100X-250X. Confirmation may be at 400X.

**SERUM DILUTING BUFFER (pH 7.2):\***

- Na<sub>2</sub>HPO<sub>4</sub> . . . . . 1.19 gm
- NaH<sub>2</sub>PO<sub>4</sub> . . . . . 0.22 gm
- NaCl . . . . . 8.55 gm
- BSA . . . . . 10.0 gm
- DI/dH<sub>2</sub>O . . . . . Q.S. to 1 liter

\* This recipe makes 1 liter. If you need less, adjust recipe accordingly. Store at 2-7°C. Add 0.09% NaN<sub>3</sub> if diluted serum is not going to be used within one week.

**4X FA RINSE BUFFER (pH 9.0):**

- Na<sub>2</sub>CO<sub>3</sub> . . . . . 11.4 gm
- NaHCO<sub>3</sub> . . . . . 33.6 gm
- NaCl . . . . . 8.5 gm
- DI/dH<sub>2</sub>O . . . . . Q.S. to 1 liter

Final pH should be 9.0-9.5. This is a 4X concentrate and should be diluted 1/4 with DI/distilled water for use as a working buffer. Keep in a tightly stoppered container at room temperature. MOUNTING FLUID is made by mixing glycerol and FA rinse buffer, pH 9.0, in equal proportions