



**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 (IBR)

*Direct FA Conjugate*

**CATALOG NO.:** CJ-F-IBR-10ML

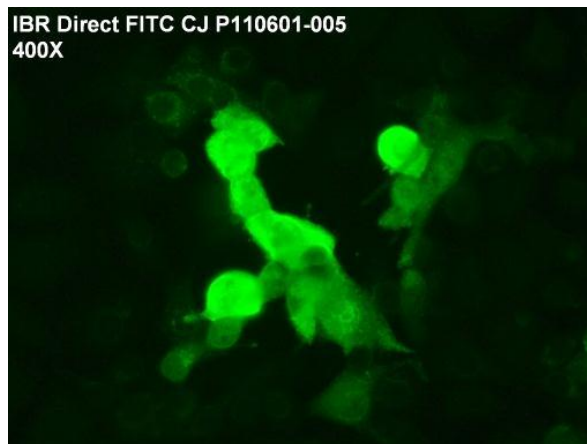
**VOLUME:** 10 ml

**LOT:** P110601-005

**EXPIRATION:** 07 February 2017

**AGENT:** Infectious Bovine Rhinotracheitis Virus/ Bovine Herpesvirus Type 1 (IBR/BHV-1)

**STRAIN:** NA



**DESCRIPTION:** Anti-IBR polyclonal antiserum conjugated to fluorescein isothiocyanate (FITC). Caprine origin. Ready to use. Liquid.

**QUALITY CONTROL METHOD:** Direct FA using VMRD, Inc. IBR/BHV-1 2-well slide (catalog no. SLD-FAC-IBR).

**Specific Reaction:** 3-4+ fluorescence with no background on the positive well and negative with no background on the negative well.

**Other Comments:** The raw material (concentrated conjugate) has also been screened by Direct FA and was found to react with bovine adenovirus type 1 (2-3+ with 1+ background at 1/200). The raw material (concentrated conjugate) does not react with *Babesia bovis*, *Babesia bigemina*, bovine adenovirus type 3 and 5 (BAV 3 and 5), porcine hemagglutinating encephalomyelitis virus (PHEV), bovine leukemia virus (BLV), bovine parvovirus (BPV), bovine respiratory syncytial virus (BRSV), bluetongue virus (BTV), bovine viral diarrhea virus (BVDV), *Neospora caninum* (bovine origin), bovine parainfluenzavirus type 3 (PI-3), bovine reovirus (REO), caprine arthritis encephalitis virus (CAEV), and *Toxoplasma gondii*.

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

**INTENDED USE:** This reagent is useful for the detection of IBR/BHV-1 in animal tissues or cell cultures.

**STORAGE:** This conjugate is provided in liquid form and should be stored at 2-7°C. DO NOT FREEZE! It should also be stored in the original container and/or in the dark. If conjugate becomes cloudy it should be discarded. This conjugate contains 0.09% sodium azide as a preservative.

**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.

**RECOMMENDED STAINING PROCEDURE FOR DIRECT FA:**

1. Air dry smears or tissue sections for at least 30 minutes at room temperature (do not dry cell cultures!).
2. Fix smears or tissue sections on slides for 20 minutes in acetone-methanol (75/25) at room temperature. Cell cultures should be rinsed with PBS and fixed in pure acetone for 10 minutes at room temperature. After fixation and before staining, slides should be dried for 10 minutes in a dry 37°C incubator.
3. Stain slides with conjugate for 30 minutes at 37°C in humid chamber.
4. Gently rinse slides briefly in FA Rinse Buffer, pH 9.0 (VMRD catalog no. FARB-4X) and then soak for 10 minutes in FA Rinse Buffer, pH 9.0.
5. Drain slides and dry back and edges with a paper towel. Do not allow stained surface to dry. Do not rinse with water.
6. Mount with FA Mounting Fluid [glycerol/FA rinse buffer, pH 9.0, (50/50)] (VMRD catalog no. FAMF-10ML) and view with good quality fluorescence microscope at 100X-250X. Confirmation may be made at 400X.

**PHOSPHATE BUFFERED SALINE (PBS) SOLUTION (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
- DI/dH<sub>2</sub>O .....Q.S. to 1 liter

**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. FA MOUNTING FLUID is made by mixing glycerol and FA Rinse Buffer, pH 9.0, in equal proportions.