

**VMRD**

PO Box 502, Pullman, WA 99163 USA

Telephone: 509-334-5815

Fax: 509-332-5356

E-mail: vmrd@vmrd.comWeb site: <http://www.vmrd.com>

Certificate of Analysis

NEOSPORA CANINUM

Negative Control Serum Bovine Origin

CATALOG NO.: 211-N-NC-BOV
re-order as NC-IFA-NC-BOV

VOLUME: 1 ml

LOT: P090312-003

EXPIRATION: 21 September 2016

AGENT: *Neospora caninum*

STRAIN: NA

DESCRIPTION: Bovine serum diluted in PBS, 1% BSA, 0.09% sodium azide.

QUALITY CONTROL METHOD: Indirect FA using VMRD, Inc. *Neospora caninum* 12-well Substrate Slides (catalog no. SLD-IFA-NC), Anti-Bovine IgG_{1,2} FITC Conjugate (catalog no. CJ-F-BOVG-AP-10ML), and *Neospora caninum* Bovine Positive Control Serum (catalog no. PC-IFA-NC-BOV).

Specific Reaction: Negative with Trace background.

Other Comments: NA

PATTERN OF FLUORESCENCE: None with our system.

INTENDED USE: As a negative control serum in detection of antibody to *Neospora caninum* by indirect FA technique. This control serum should be used undiluted to demonstrate negative fluorescence, if any.

STORAGE: Store at 2-7°C. DO NOT FREEZE!

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 VMRD\QC\CofA\Negative Controls\N. caninum\N. caninum - Bovine\NC-IFA-NC-BOV P090312-003 160921.docx
11 October 2012

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. 210-93-SB).
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. 210-90-RB) 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. 210-92-MF) 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 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. 210-90-RB) 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. 210-92-MF) and view with good quality fluorescence microscope at 100X-250X. Confirmation may be at 400X.

SERUM DILUTING BUFFER (pH 7.2):*

- Na₂HPO₄ 1.19 gm
- NaH₂PO₄ 0.22 gm
- NaCl 8.55 gm
- BSA 10.0 gm
- DI/dH₂O 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% NaN₃ if diluted serum is not going to be used within one week.

4X FA RINSE BUFFER (pH 9.0):

- Na₂CO₃ 11.4 gm
- NaHCO₃ 33.6 gm
- NaCl 8.5 gm
- DI/dH₂O 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.