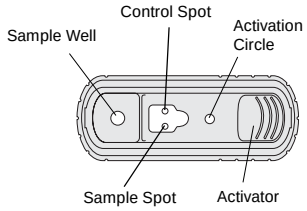
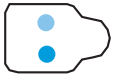
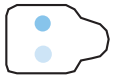
The SNAP test has been approved by AOAC-RI for visual interpretation without a reader. The performance expected from the visual interpretation, and the 90/95% detection level determined by an independent laboratory is reported below. **The Visual Interpretation Procedure for the SNAP device is not acceptable for use in NCIMS milk-monitoring programs.**

Interpreting Test Results





Negative Result—The sample spot is darker than or equal to the control spot**.**



Positive Result—The sample spot is lighter than the control spot.

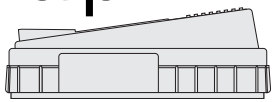
Dose Response Visual Interpretation

ppb	Amoxicillin	Ampicillin	Ceftiofur	Cephapirin	Penicillin
1					0%
2	0%	0%		0%	37%
3					97%
4	0%	13%		0%	100%
5			37%		100%
6	53%	93%			
8	100%	100%		0%	
10	100%	100%	100%		
12				100%	
20			100%	100%	
30			100%		
50			100%		
Tolerance/Safe Level (ppb)	10	10	50	20	5
90/95% Concentration (ppb)	6.9	6.2	5.9	11.9	3.1

For technical assistance call IDEXX Technical Services at 1-800-321-0207.

*SNAP and SNAPshot are either trademarks or registered trademarks of IDEXX Laboratories, Inc. in the United States and/or other countries.

snap®



New SNAP* Beta-Lactam Test Kit

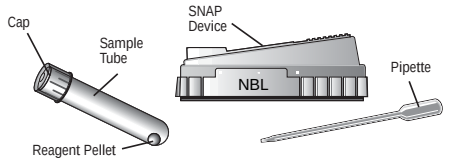
(penicillin G, amoxicillin, ampicillin, ceftiofur and cephapirin)
Validated for raw commingled bovine milk

Product and Intended Use

The New SNAP* Beta-Lactam Test is an enzyme-linked receptor-binding assay that detects penicillin G, amoxicillin, ampicillin, ceftiofur and cephapirin residues in raw commingled bovine milk at or below established tolerance and/or safe levels (Refer to performance information.). This test also detects cloxacillin at a level above the established tolerance and/or safe level (Refer to cross-reactivity data.). The base of the New SNAP Beta-Lactam Test is marked with “NBL.”

Kit Components

- SNAP device
- Sample tube and cap
- Reagent pellet
- Pipette



Components Required But Not Provided (Available through IDEXX Laboratories)

- Block heater capable of maintaining an operating temperature of 45°C (113°F) ± 5°C
- A reader supplied by IDEXX capable of reading a SNAP device

  NOTE: The New SNAP Beta-Lactam Test is approved only for use with the SNAPshot* Reader for NCIMS testing.
- Positive and negative controls

IDEXX LABORATORIES

rev 5/03

One IDEXX Drive, Westbrook, Maine 04092 USA
Tel: 207-856-0300 or 800-321-0207 Fax: 207-856-0630

Performance Information

Sensitivity

Dose Response Information

ppb	Amoxicillin	Ampicillin*	Ceftiofur*†	Cephapirin*	Penicillin*
1					7%
2	0%	0%		0%	37%
3					93%
4	20%	37%		0%	100%
5			87%		100%
6	70%	100%			
8	100%	100%		0%	
10	100%	100%	100%		
12				100%	
20			100%	100%	
30			100%		
50			100%		
Tolerance/Safe Level (ppb)	10	10	50	20	5
90/95% Concentration (ppb)	7.3	5.8	5.4	11.7	3.0

*The drugs indicated with an asterisk (*) have demonstrated a 90/95% sensitivity of this test kit, which is at least 25% less than the tolerance or safe level.

Data presented as percent positive at each concentration.

†Milk from a ceftiofur-treated dairy cow tested with the New SNAP Beta-Lactam Test will test positive (will give a positive test response) to less than 1 ppb ceftiofur.

SENSITIVITY: Based on 30 samples at each milk concentration.

SELECTIVITY: 60 negative control milk samples were evaluated in an independent laboratory and none of these negative control samples tested positive with SNAP.

Cross-Reactivity

The New SNAP Beta-Lactam Test Kit cross-reacts with the following drugs at the levels indicated:

	ppb		
	10	50	100
Cloxacillin	0%	100%	100%
Dicloxacillin	0%	100%	100%
Ticarcillin	0%	100%	100%
Cefadroxyl	100%	100%	100%

The New SNAP Beta-Lactam Test Kit does not cross-react with the following drugs at levels up to 100 ppb: sulfadiazine, sulfanilamide, sulfathiazole, sulfamethazine, sulfapyridine, sulfadimethoxine, tetracycline, oxytetracycline, chlortetracycline, doxycycline, gentamicin, neomycin, streptomycin, ivermectin, erythromycin, novobiocin, furosemide, trichlormethiazide, chlorothiazide, oxytocin, phenylbutazone, dexamethasone, dipyrone, pilimycin, tilmicosin, thiabendazole and p-aminobenzoic acid (PABA).

Operating Instructions

For all NCIMS testing, refer to current 2400 for IDEXX New SNAP Beta-Lactam (Appendix N Bulk Milk Tanker Screening Test Form).

Storage

All materials must be refrigerated at 0°–7°C (32°–45°F). Tests can be kept at room temperature, 18°–29°C (64°–84°F), during the day of use. Remove only the number of tests to be used for the day.

NOTE: Discard unused, unrefrigerated devices at the end of the day.

Sample Information

- Raw commingled bovine milk must be used.
- Samples must be refrigerated and tested within 3 days of collection.
- Thoroughly mix the sample before testing.
- The milk sample must not have been frozen nor thawed at any time before testing.

Precautions and Warnings

- Do not mix sample tubes and devices from different lot numbers.
- Do not use kits past their expiration dates.
- The SNAP device must be run in a horizontal position.
- The New SNAP Beta-Lactam Test is recommended for use by personnel who have received training by an IDEXX representative. In the United States under NCIMS recommendations, trained individuals should maintain proficiency by regular use and/or state-sponsored training/certification programs. Individuals who have not run a SNAP device in the past six months or who desire additional training should contact IDEXX Technical Services at 1-800-321-0207.

Test Preparation

- SNAP devices can be kept at room temperature during the day of use.
- Ensure that the heater block has been preheated and that the temperature has maintained 45°C (113°F) ± 5°C for at least 5 minutes.
- Remove the SNAP device, pipette and sample tube from the bag.

  NOTE: An unused SNAP device should have a light-blue control spot, sample spot and activation circle. If the device does not have light-blue control and/or sample spots, discard the device and open a new SNAP device.
- Verify that the reagent pellet is at bottom of the sample tube. If not, tap the tube to return the pellet to the bottom.
- Shake the milk sample thoroughly.

Positive and Negative Controls in the United States for NCIMS Testing

- Positive and negative controls must be run daily prior to testing samples, and with each new lot to verify the performance of the reagents and equipment.
- Positive and negative controls must not be frozen.

Negative Control:

- Use beta-lactam-negative raw milk.

Positive Control:

- Use the IDEXX Penicillin Positive Control, part # 98-06513-00, as directed in the descriptive insert that accompanies the product.

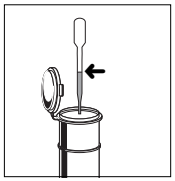
Test Procedure

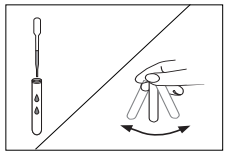
A. Preparing the Sample

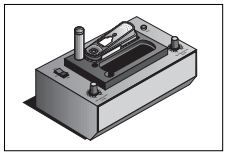
1. Place the SNAP device(s) in the preheated heater block. The device must remain in the heater block for the duration of the test.
2. Shake the milk sample thoroughly.
3. Remove and discard the sample tube cap.
4. With the IDEXX pipette, draw up the milk sample (450 µl ± 50 µl) to the indicator line.

   TIP: When pipetting, take the sample from the middle of the sample container, pipetting away from any bubbles, and slowly draw up the sample to the indicator line on the pipette to avoid air bubbles.
5. Carefully add all of the milk sample from the pipette to the tube.
6. Shake the sample tube to dissolve the reagent pellet.
7. Incubate the sample tube in the heater block at 45°C (113°F) ± 5°C for 5 minutes.

   NOTE: Incubation must occur for a minimum of 5 minutes and no longer than 6 minutes.







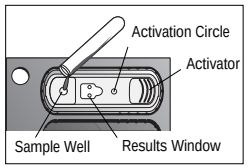
B. Testing the Sample

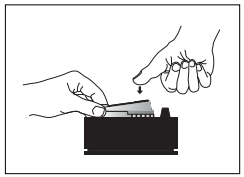
8. Pour the entire contents of the sample tube into the sample well of the SNAP device and discard the tube.

   NOTE: The sample will flow across the results window toward the blue activation circle.
9. When the blue activation circle BEGINS to disappear, push the activator FIRMLY until it snaps flush with the body of the SNAP device.

   NOTE: When the edge of the activation circle nearest the sample well begins to turn from dark blue to white, activation should occur. Do not let the circle completely disappear.
10. Wait 4 minutes.

    NOTE: The SNAP device must remain in the heater block during color development.





11. Remove the device from the heater block and visually inspect the control spot and sample spots.

    The test is invalid and the same sample should be retested with a new SNAP device if:

    a. The control spot fails to develop color.

    b. Blue streaking occurs in the background or the background is the same color as the sample or control spots.

    c. The sample or control spots are not uniform in color or exhibit poor spot quality.

    NOTE: Do not put invalid tests into the reader.

C. Reading the Results

Read the results immediately (no longer than 30 seconds in the SNAPshot Reader). Insert the SNAP device and follow the instructions for reading (see the SNAPshot Reader manual for more details).

NOTE: We recommend that the check set devices be used daily to verify the performance of the reader.

Negative Sample

If the ratio is **below or equal to 1.05**, the reader will display a result of "N" or "Negative" and report as "Not Found."

Presumptive Positive Sample

If the ratio is **1.06 or higher**, the reader will display a result of "P" or "Positive."

Example of SNAPshot Reader Printout

Printout	Description
SNAPshot Reader SNAP Test	
Beta-Lactam (5 ppb)	Test Type
7/27/02 12:22 PM	Date and Time
Lot ID: 012345	Lot Number
Tech: 9876	Technician ID Number
Sample: 011	Sample Number
Ratio: 0.79	Ratio
Results: Negative	Result

In the United States for NCIMS Testing:

- Upon initial screen, a positive result indicates an Initial Positive.

Retest of Initial Positive Samples

- For milk samples yielding an initial positive result in initial testing, promptly retest the SAME sample in duplicate as described in the Test Procedure section.
- Along with these duplicate retest samples, run positive and negative controls prepared as described in the Positive and Negative Controls section.

NOTE: All NCIMS testing must be performed in accordance with Appendix N of the current PMO.

Interpretation of Retest Results

If the controls test correctly, negative results for both retest samples indicate a **Negative Result** (report as **Not Found**).

The SNAPshot Reader will print out the following information: the assay identification, date and time, lot number, technician ID, sample ID, ratio and result.

Additional Information

Samples of this test kit model were independently evaluated by the AOAC Research Institute and were found to perform to the producer's specifications as stated in the test kit's descriptive insert. The producer certifies that this kit conforms in all respects to the specifications originally evaluated by the AOAC Research Institute as detailed in the PERFORMANCE TESTED[K] certificate number 030302.

PERFORMANCE TESTED AOAC RESEARCH INSTITUTE LICENSE NUMBER 030302