

Delvotest[®] SP NT



Certified by AOAC
for raw commingled bovine milk.
Catalogue numbers:
8422, 8421, 13323, 13321, 28299

Standard diffusion test for the detection of antibacterial substances in Milk - 20251105

Contents

Ready to use tests with solid agar medium containing *Bacillus stearothermophilus var. calidolactis*, nutrients for growth and bromocresol purple.

Caution

- As this test is extremely sensitive to antibacterial substances, any contamination with these substances should be prevented. Wash and dry hands before starting the test procedure. Use a clean table.
- Do not handle the tests roughly since this may loosen the solid agar medium and may affect the quality of the test results.

Detection sensitivity and Selectivity

Information on the full broad-sensitivity spectrum of the test sensitivity is available via your DSM Food Specialties distributor. The best test sensitivity is reached when measuring at control time. To determine the control time: As a negative control, pipette 0.1 mL of milk, free from antibacterial substances (available as Negative Control via your DSM Food Specialties distributor), into the first ampoule. Start reading the color result of the negative control milk sample (first well) after an incubation time of 2 hours 15 minutes. If the color has not changed to yellow, the test ampoules should be returned to the incubating device until a yellow reading of the negative control sample is achieved (it is recommended to repeat the readings at intervals of 5 minutes). When the color of the negative control ampoule has turned to yellow, all other ampoules (samples) can be read. At control time the sensitivity of the Delvotest[®] SP NT is for Penicillin G at 2 ppb (ng/g) and for Sulfadiazine at 100 ppb (ng/g). When using a fixed time reading of 3 hours, the sensitivity will be reduced. To optimize reliability, DSM advises to verify the correct functionality of the test, operations and incubation with negative control and positive control milk samples available at DSM.

Directions

1. **Preheat the incubation device** - The temperature of the dry incubator or water bath should be set at 64 °C (± 2.0 °C).
2. **Select the required number of test material** - Detach one or more ampoules or break the plate in blocks depending on the number of milk samples to analyze. Use scissors or a knife if needed. Take care that the aluminum foil from the remaining tests is not damaged, if so, the test would dry out. Return the remaining tests in appropriate storage conditions immediately. Remove the aluminum foil from the plate or perforate the ampoules carefully.
3. **Add the milk sample** - Milk samples should be homogenized and representative of the milk to be tested. If milk from individual animals is tested, do not use the first milk drops. Milk all four quarters completely from the cow to be analyzed and gently mix the milk without creating foam. A one-way pipette should never be used for more than one milk sample. Small droplets from other samples are enough to contaminate clean samples. Pipette 0.1 mL of sample in the test. For each sample use a new and clean pipette. Clearly indicate each test, for example: use sample numbers.
4. **Incubate the test in the incubator** - When using test in plates, cover the plates using the included adhesive foil. Incubate the test plates or ampoules in the pre-heated incubator or water bath. Incubate the test for control time (or use 3 hours see above).
5. **Reading** - The color should be read from the 2/3 part of the ampoule or from underneath the test plate. If the test is (partially) yellow, the test is negative: the milk analyzed does not contain antibiotics or the antibiotic concentration is below the detection sensitivity of the test. The result is positive when the test is purple: the sample of milk contains antibiotics at or above the detection sensitivity of the test. Optional reading with Delvo[®]Scan software: ask your DSM representative.

The table below summarizes the sensitivity of the Delvotest[®] SP NT as validated by the AOAC.

Antibiotics	Sensitivity	Antibiotics	Sensitivity
Amoxicillin	2.5 ppb (ng/g)	Cephapirin	5.8 ppb (ng/g)
Ampicillin	3.0 ppb (ng/g)	Penicillin G	1.5 ppb (ng/g)

60 negative control milk samples were evaluated in an independent laboratory and zero* of these negative samples tested positive with the Delvotest[®] SP NT.

* *Selectivity is the ability of a test method to certify that negative samples are truly negative. The selectivity rate (ratio) is defined as the percentage of negative samples that are found by the test to be truly negative. To meet minimum requirements for labelling an antibiotic residue test, a test kit must demonstrate a selectivity rate of at least 95% with a 95% confidence level on zero (drug-free) sample of the matrix for which the test has been designed or adapted.*

Additional information

Further information, including sensitivity for specific substances, effect of the incubation time on the sensitivity of the test, sample colors and applications may be obtained by contacting DSM local representatives. The optimum incubation time (the one measured with a control sample) may increase over the shelf life of the tests. Tests nearing the expiry date may thus require a somewhat longer optimum incubation time than freshly produced ones. There is no effect of the shelf life on the test detection sensitivity.

Storage

The tests should be stored upright in the original packaging, in the dark at a constant temperature below 8 °C prevented from freezing (preferably between 4 °C and 8 °C). Lower and/or fluctuating temperatures may result in softening of the contents, leading to loosening of the agar or the formation of air bubbles. Storage at a higher temperature will shorten the shelf life.

To the best of our knowledge, the information contained herein is accurate and complete. However, nothing contained herein shall be construed to imply any warranty or guarantee. **For USA: NOT INTENDED FOR NCIMS TESTING**