

MicroPelletRT, MicroPelletRTPlus and MicroPelletRT10

USE

MicroPelletRT, MicroPelletRTPlus and MicroPelletRT10 are ready-to-use pellets containing a specified number of stabilized viable microorganisms for use in quality control procedures or as performance evaluation standards. MicroPelletRT, MicroPelletRTPlus and MicroPelletRT10 are recommended for use in performance testing of culture media, stains, identification kits, maintenance of stock cultures and in the evaluation of bacteriological procedures. MicroPelletsRT, MicroPelletsRTPlus and MicroPelletsRT10 may also be used for USP/EP test requirements such as Growth Promotion Testing, Microbial Limits Testing, and Bacteriostasis and Fungistasis.

PRODUCT DESCRIPTION

Each MicroPelletRT consists of a lyophilized pellet inside a vial. For each lyophilized pellet a rehydration vial is provided containing 1.0 ml of rehydrating liquid. Each pellet contains colony forming units (CFU's) and when properly rehydrated produce doses of 10-100 CFU's per 0.1ml.

Each MicroPelletRTPlus consists of a lyophilized pellet inside a vial. Rehydration fluid is provided separately as a kit of 2 vials containing 1.0 ml of rehydrating liquid. Each pellet contains colony forming units (CFU's) according the product specification.

Each MicroPelletRT10 consists of a lyophilized pellet inside a vial. For each lyophilized pellet a rehydration vial is provided containing 10 ml of rehydrating liquid. Each pellet contains 1000-10000 colony forming units (CFU's), and when rehydrated with 10 ml it produces 100 doses of 10-100 CFU's/0.1 ml. No additional dilution step is necessary!

MATERIALS REQUIRED BUT NOT PROVIDED

Incubator, Vortex Mixer, Inoculating Loops, Sterile Forceps, Sterile Pipettes

PRECAUTIONS

MicroPelletRT, MicroPelletRTPlus and MicroPelletsRT10 contain viable microorganisms and should be used only by individuals with bacteriological training. After use all materials should be sterilize in steam sterilization at 121 °C for 30 minutes or incinerate prior to disposal.

STORAGE INSTRUCTIONS

MicroPelletRT, MicroPelletRTPlus and MicroPelletRT10 should be stored at 2°C to 8°C. Rehydration vials should be stored at 2°C to 8°C. Remove only the quantity of vials required for immediate use.

EVIDENCE OF DETERIORATION

Do not use pellets if there is evidence of hydration. Improper storage or handling which leads to abnormal accumulation of moisture or heat may render the microorganisms non-viable.

PROCEDURE

1. Remove only the amount of vials needed for testing.
2. Allow the pellet and the Rehydration Fluid to equilibrate to room temperature prior to use.
3. Prior to use, warm hydration and dilution fluids to 34°C–38°C.
4. Remove the cap from the vial containing the Rehydration Fluid (1.0 mL for MicroPelletRT and MicroPelletRTPlus) or (10 mL for MicroPelletRT10). Remove the cap from the vial containing the pellet and aseptically transfer the pellet to the vial of Rehydration Fluid.

5. Incubate the rehydrated pellet at 34°C to 38°C for 30 minutes.
6. After incubation, vortex mix the rehydrated pellet to achieve equal distribution of the cells.
7. Inoculate samples to be challenged with 0.1 mL (100 µL) of the hydrated pellet.

INOCULATION AND SAMPLE ANALYSIS

A. Pre-poured Agar Medium

1. Mix contents thoroughly.
2. Remove cap. Measure 0.1 ml (100µl) onto pre-poured agar surface.
3. Spread liquid completely over surface using a sterile loop or bent rod.
4. Allow medium to dry completely before inverting and placing into the incubator. Wet spots may result in spreading colonies.
5. Incubate for the time, temperature, and atmosphere appropriate for the organism and / or procedure.
6. Sample should be remixed prior to each inoculation.

B. Pour Plate Technique

1. Mix and dispense as above (Section A 1-2) into sterile dish.
2. Add appropriate volume of molten agar medium tempered to 45°C. Mix and allow to harden.
3. Invert and incubate for the time, temperature and atmosphere for the organism and / or procedure.
4. Sample should be remixed prior to each inoculation.

C. Tube or Broth Medium

1. Mix and dispense contents (Section A 1-2) into broth or liquid matrix.

The Rehydrated Sample should be used within 8 hours after rehydration. The rehydrated sample should be refrigerated between use to avoid a change in the concentration. The exception to the 8 hour stability is *B. fragilis* and *C.perfringens* which must be used within 30 minutes.

LIMITATIONS

CFU's are specified under defined procedures and growing conditions and cannot be guaranteed under other conditions. Growth results may vary when utilizing more inhibitory or selective media over nonselective media.

REFERENCES

1. USP–NF 2023, Issue 1
2. European Pharmacopoeia 11th Edition, Council of Europe, Strasbourg
3. Mehlman. 1984. Appendix 1. Culture Media. In Bacteriological Analytical Manual. A.O.A.C., Arlington, VA.

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