



Job Aid

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Maldi-TOF Cleaning and Reagent Preparation Guide

Target Plate Cleaning Protocol

Bruker MBT target plates are reusable and will need to be cleaned regularly. To clean the targets:

1. Using an alcohol wipe, make sure everything is wiped off the target. Be careful to clean the corners as this is where there may be a build-up of bacteria. Be careful not to scratch the surface of the target
2. Soak the target in 70% Ethanol in a glass petri dish for 10 minutes
3. Rinse target over sink with distilled water. Dry thoroughly with a lint-free wipe such as a Kimwipe (NOT a tissue)

Bacterial Test Standard (BTS) Stock Preparation Protocol

The BTS is used in every MALDI run as calibration and QC. To prepare the aliquots:

1. Remove vial from the -20°C. freezer (yellow lid)
2. Add 50µL of Bruker Standard Solvent (BSS) and dissolve pellet by pipetting suspension **slowly** up and down at least 20 times. Try not to produce any bubbles or foam when mixing.
3. Incubate at room temperature for 5 minutes
4. Mix suspension again by **slowly** pipetting up and down for another 20 times. Try not to produce any bubbles or foam when mixing
5. Centrifuge at 13,000rpm for 2 minutes
6. Label 6 sterile Eppendorf tubes with 'BTS' and date of production
7. Aliquot 7µL into each of the 6 tubes and store at -20°C

After this procedure there should be 6 aliquots and the BTS original tube (50µL).

Note: BTS aliquots can be kept for up to 5 months when stored at -20°C.

BTS Preparation on Target Plate

1. Remove one BTS aliquot from the freezer
2. Perform a “quick spin” for 15 seconds in the centrifuge
3. Pipette 1 μ L of BTS on the target
4. Once completely dry, overlay with 1 μ L of matrix
5. In the MBT Compass program, tick ‘BTS’ on the far-left panel in the correct spot position

The MALDI-ToF will automatically perform calibration and QC.

HTCC Matrix Preparation Protocol

1. Remove one HCCA Matrix from fridge and allow to warm to room temperature
2. Add 250 μ L of Bruker Standard Solvent (BSS) Vortex until completely mixed and no dry solution can be seen on the bottom of the tube
3. Write date of production on the tube
4. Matrix can be stored at room temperature in a cool dark box
5. Use within 7 days

Formic Acid Preparation

1. Label a screw top tube with 70% Formic Acid, date of preparation
2. Add 700 μ L \geq 95% Formic Acid
3. Add 300 μ L distilled water
4. Mix by inversion
5. Store in dry cool place (room temperature)