Job Aid

Document G_90_J_21_A Author: T Ikanofi Authorised: W Porau 6/10/22 Review: 6/10/25

Maldi-TOF Harsh Cleaning and Reagent Preparation Guide

Preparation of 80% aqueous Trifluoroacetic Acid (TFA)

80% aqueous TFA solution is used to clean MALDI-TOF target plates.

1. Transfer 400µL of HPLC-grade water (deionised water) into a 1.5mL eppendorf plastic tube
2. In the fume hood, carefully add 1600µL (1.6mL) of 99% trifluoroacetic acid (TFA) to the tube
3. Close the lid tightly on tube
4. Mix by inverting the tube 5 times
5. Label tube with TFA, date and lot number of neat TFA bottle

Target Cleaning Protocol

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

1. In a petri dish, cover surface of MALDI target plate with 70% aqueous ethanol
2. Incubate at room temperature for 5 minutes
3. Remove the target and rinse it intensively under flowing tap water
4. Wipe the target (Kimwipe) intensively with 70% aqueous ethanol
5. Rinse the target plate with tap water and wipe target with a kimwipe
6. **In the fume hood**, Add 100uL of 80% Trifluoroacetic Acid (TFA) to the slide and wipe over all target spots on the target plate
7. Rinse the target with deionised water and dry plate with a Kimwipe
8. Let target completely dry for 15 minutes
9. Plate is now clean and ready to use

Harsh cleaning protocol using 80% aqueous Trifluoroacetic Acid (TFA)