

ZIP TIP CLEANING OF DIGESTION SAMPLES FOR MALDI-TOF MASS SPECTROMETRY

MATERIALS:

P20 pipettor
1% Trifluoroacetic acid (tfa)
0.1% TFA
70% Acetonitrile/0.1% tfa
Zip Tip (C18 or C4)
500 ul Eppendorf snap-cap tubes

PROCEDURE:

1. Pipet some 70% acetonitrile/0.1% tfa into a small test tube
2. Pipet some 0.1% tfa into a small test tube
3. Add 2 ul of 1% TFA to the sample (final concentration ~0.1% assuming a 20 ul sample. Adjust volume according to sample volume.) (ACIDIFIES SAMPLE)
4. Place Zip Tip firmly onto end of P20 pipettor
5. Draw up 20 ul of 70% ACN solution into the ZipTip (WETTING STEP)
6. Expel the acetonitrile (do not dry the tip) and draw up 20 ul of 0.1% tfa; repeat wash with 0.1% tfa for a total of 6 times; discard each each wash; do not dry the tip (EQUILIBRATION STEP)
7. Draw up sample into the ZipTip; flush sample back and forth 20 times to allow the sample to bind to the tip (BINDING STEP)
8. Expel and save the remaining sample in the eppie tube; do not dry the tip (FLOW THROUGH; DID NOT STICK)
9. Rinse the tip with 20 ul of 0.1% tfa 6 times; do not dry the tip; no air bubbles; discard each rinse (WASHING STEP)
10. Draw up 5 ul of 70% ACN/0.1% tfa into the tip; flush solvent back and forth several times and expel the sample from the tip into a clean 500 ul Eppie tube (ELUTING STEP)