

Instructions for making sinapinic acid protein spots

If using Waters Mass Prep matrix:

Make a 10 g/L solution of sinapinic acid in 2:3 acetonitrile:0.1% v/v trifluoroacetic acid (TFA)

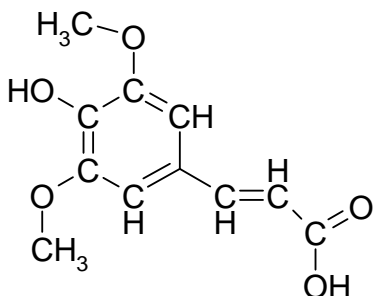
Mix 1 uL of acidified analyte solution with 1 uL of sinapinic acid solution

Deposit 1 uL of this solution onto the target

After 15 seconds or so, repeatedly tap the spot (gently) with the pipette tip to induce crystallization of the sinapinic acid matrix.

Correctly made spots should be white and fluffy (small white crystals) in appearance

Sinapinic acid spots take more light (attenuation = 40-32) than CCA to make ions.



3,5-dimethoxy-4-hydroxycinnamic acid

a.k.a.: sinapinic acid

Molecular Weight =224.2153

Exact Mass =224.06847

Molecular Formula =C₁₁H₁₂O₅

If using Sigma sinapinic acid:

Matrix solution is 37.4 g/L ferulic acid (3-methoxy-4-hydroxycinnamic acid) in absolute ethanol

Make sure sample solution is acidic (add a little 1% v/v TFA if unsure)

Add 3.5 ul of sample to a clean eppendorf tube

Add 1.5 ul of matrix solution to sample in eppendorf (3:7 matrix/analyte ratio)

Mix well

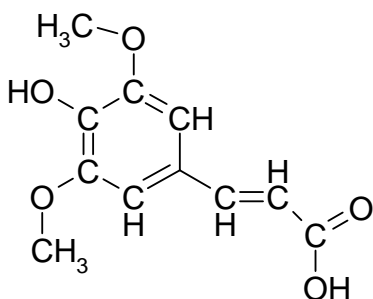
Deposit 1-2 ul of matrix-analyte solution to target, leave tip on end of pipette

After 15 seconds or so, repeatedly tap the spot (gently) with the pipette tip to induce crystallization of the sinapinic acid matrix.

Correctly made spots should be white and fluffy (small white crystals) in appearance

Sinapinic acid spots take more light (attenuation = 40-32) than CCA to make ions.

Ferulic acid is great for proteins (>15 kDa) where CCA of ferulic acid might not provide good sensitivity.



3,5-dimethoxy-4-hydroxycinnamic acid

a.k.a.: sinapinic acid

Molecular Weight =224.2153

Exact Mass =224.06847

Molecular Formula =C₁₁H₁₂O₅