

## Instructions for making ferulic acid protein spots

Matrix solution is 32.4 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 acidified sample to a clean eppendorf tube

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

Mix well

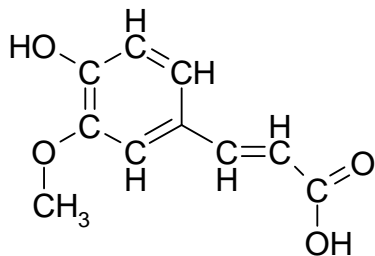
Deposit 1-2 ul of matrix-analyte solution to target, leave tip on end of pipette

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

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

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

Ferulic acid is great for proteins (>5 kDa) where CCA might not provide good sensitivity.



3-methoxy-4-hydroxycinnamic acid

a.k.a: ferulic acid

Molecular Weight =194.1888

Exact Mass =194.05791

Molecular Formula =C<sub>10</sub>H<sub>10</sub>O<sub>4</sub>