

## Sinapinic Acid Protocol and Product Information Sheet

Product Category: Ultrapure MALDI Matrices

Catalog Number(s): p9102-25mg, p9102-5x10mg, p9102-4x25mg, p9102-1gm

Product Name: Sinapinic Acid

Alternative Name(s): Sinapic Acid; SA Matrix

CAS Number: 530-59-6 Chemical Formula:  $C_{11}H_{12}O_5$ Molecular Weight: 224.21

Wavelength: 337 nm, 353 nm

There are many preparations and a wide variety of techniques where Sinapinic acid and other MALDI matrices are used. Below is intended to be only a general protocol or a starting point.

## MALDI Matrix Preparation (10mg/mL Stock)

Dissolve 10mg of matrix in 1.0 mL of 50% acetonitrile, 50% proteomics grade water and 0.1% TFA. Vortex vigorously. (Other solvents may be used, such as ones containing higher acetonitrile concentrations, such as 70%; lower concentration of TFA, such as 0.01%; or replacing acetonitrile with methanol, etc.).

## Sample Spotting (use one of the two methods below):

## **Dried Droplet Method**

- 1. Mix the matrix stock solution with sample.
- 2. Apply 0.2 to 0.6 µL of this solution onto the MALDI sample plate.
- 3. Allow the matrix:sample to co-crystallize through evaporation at room temperature.
- 4. Place MALDI plate in MALDI-MS Ion Source and analyze.

Thin Layer Method (Matrix spotting should be done in organic solvent for fast evaporation)

- 1. Prespot MALDI-MS sample plate with 0.5-1.0 µL of MALDI matrix stock solution.
- 2. Allow this spot to evaporate to dryness.
- 3. Dispense 0.2 to 0.6 µL of protein sample solution (in acetonitrile / water cosolvent).
- 4. Allow matrix:sample crystals to form through solvent evaporation.
- 5. Place MALDI plate in MALDI-MS ion source and analyze.

Note: Spotting additional matrix stock solution on top of sample (sandwich method) can also be used.