

DHB Protocol and Product Information Sheet

Product Category: UltraPure MALDI Matrices

Catalog Number(s): p9101-25mg, p9101-5x10mg, p9101-4x25mg, p9101-1gm

Product Name: DHB

Alternative Name(s): 2,5-Dihydroxybenzoic acid; DHB Matrix

CAS Number: 490-79-9 Chemical Formula: $C_6H_6O_4$ Molecular Weight: 154.12

Wavelength: 337 nm, 355 nm

Since there are many preparations and a wide variety of techniques where 2,5-Dihydroxybenzoic acid and other MALDI matrices are used, below is intended to be only a general protocol or a starting point, not necessarily the best for your particular application.

MALDI Matrix Preparation (Saturated Method) - NOT FULLY DISSOLVED

- 1. Dissolve the contents of the tube 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.).
- 2. If the entire contents of the tube is not soluble in your solution of choice, spin the tube down in a microcentrifuge, then transfer the supernatant to an new microfuge tube. This solution contains the saturated MALDI matrix.

Note: A 5 mg/mL solution or lower in the above solvents can also be employed. A slightly higher concentration will be achieved by first dissolving in Acetonitrile alone, then adding aqueous 0.1% TFA.

Dried Droplet Method

- 1. Mix the saturated matrix solution (or other matrix concentrated solution) with your sample.
- 2. Apply 0.2 to 1.0 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 samples.

Thin Layer Method is also a good option, although it is not covered in this product sheet.