

Differential Ion Mobility System Suitability LipidoMix[™] Kit

Avanti Number 791500

This system provides pre-mixed synthetic lipid standards combined with a natural lipid extract to provide a system suitability standard that allows you to confirm visualization and separation of each lipid class. This standard and protocol was developed in collaboration with Paul Baker and Leo Wang of SCIEX. The standard is designed to ensure proper instrument set-up and allow for easy method development using ion mobility platforms. The combination of synthetic lipids with the natural lipid extract form a lipid population representative of a typical sample.

Mixture contains 1mg/ml of Cholesterol, 18:1 TG, 18:1 SM, 18:1 Ceramide, 18:1 Lyso PC, 19:0 Chol Ester, 14:1 DG, 14:1 CA, 14:1 PC, 14:1 PS, 14:1 PG, 14:1 PE, 14:1 PI & 14:1 PA. Bovine Heart Extract is provided in a separate vial.





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Reagents and Materials List:

Solvents: Methanol, Methylene Chloride (DCM/Dichloromethane), Ammonium Acetate Ion Mobility System Suitability Synthetic Lipid Mixture, 0.5mL at 1mg/ml for each compound Bovine Heart Extract Total, 25mg, 1mL at 25mg/ml in chloroform

Step 1: Prepare 1 M ammonium acetate buffer solution in methanol by weighing 1.54 grams of ammonium acetate in a 20 mL scintillation vial. Add 20 mL methanol and vortex mix.

Step 2: Prepare Lipid Working Solvent (LWS): 50/50 methylene chloride (DCM)/methanol with ammonium acetate (10 mM). Mix 250 mL methylene chloride with 250 mL of methanol. Add 5 mL ammonium acetate buffer solution made in step 1. Cap the bottle (only use caps with PTFE liner) and shake vigorously to mix.

Step 3: Dilute Avanti Bovine Heart Extract in LWS(prepared in Step 2) to 200 μ g/mL by quantitatively transfering 40 μ L of BHE stock solution to a 4 mL amber glass vial. Add 3,960 μ L LWS and vortex mix.

Step 4: Quantitatively transfer 40 μ L of Avanti Lipid Mix solution to a 4 mL amber glass vial and add 3960 μ L of LWS. This yields a working solution with 10 μ g/mL concentration of each lipid species.

Step 5: Mix diluted Bovine Heart Extract and diluted Lipid Mixture together in a 1:1 ratio by combining 1mL of each solution. Vortex mix. Your standard is ready for use and will contain 5ug/mL of each synthetic lipid standard (PI = 1.25 ug/mL).

Ordering Information:

- Avanti Product Number 791500
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Ordering Options: Order online at avantilipids.com Call customer service at (800)-227-0651 Email purchase order to orders@avantilipids.com



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