


Preparing Urine Samples for Nuclear Magnetic Resonance (NMR) Analysis		
C004		
Version: 1.0	Date: 26-Oct-2018	

Preparing Urine Samples for Nuclear Magnetic Resonance (NMR) Analysis

Purpose This procedure provides information on how to prepare urine samples for nuclear magnetic resonance (NMR) contract analysis.

Materials

Reagents	Supplies	Equipment
<ul style="list-style-type: none"> Chenomx Internal Standard (ISTD) (contains 3-Trimethylsilyl-1-propanesulfonic acid-d₆ sodium salt (DSS-d₆), 0.1% Sodium azide (NaN₃), 99.9%v/v Deuterium oxide (D₂O)) 	<ul style="list-style-type: none"> Microcentrifuge tube NMR tube 	<ul style="list-style-type: none"> Microcentrifuge Rainin pipette Vortex pH meter

Procedure

Preparing Urine Samples for NMR Analysis


If the urine samples are frozen, remove from the -80°C freezer and place into the biosafety cabinet. Allow the samples to thaw at room temperature until there is no ice remaining in the container.

700 µL NMR Analysis Preparation

Step	Details
1.	Add 70 µL of Chenomx ISTD to 630 µL of urine sample or an ISTD volume equivalent to 10% of the total sample volume to each of filtered samples.
2.	Vortex the sample for 30 seconds for uniform mixing.
3.	Read the pH of the samples by using a pH meter. Rinse the pH meter probe thoroughly with distilled water and blot dry with Kimwipes, before moving on to the next sample. Record all pH values in your laboratory notebook.
4.	Transfer the sample containing Chenomx ISTD into a NMR tube. <i>(See L001 Transferring samples to NMR tubes)</i>

300 µL NMR Analysis Preparation

Step	Details
1.	Add 30 µL of Chenomx ISTD to 270 µL of urine sample or an ISTD volume equivalent to 10% of the total sample volume to each of filtered samples.

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2.	Vortex the sample for 30 seconds for uniform mixing.
3.	Read the pH of the samples by using a pH meter. Rinse the pH meter probe thoroughly with distilled water and blot dry with Kimwipes, before moving on to the next sample. Record all pH values in your laboratory notebook.
4.	Transfer the sample containing Chenomx ISTD into a NMR tube. <i>(See L001 Transferring samples to NMR tubes)</i>

References Not applicable

Related

Documents L001 - Transferring NMR Samples into NMR Tubes, current version

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