

Melamine in Yogurt Sample Preparation

1. Intended Use

For the detection of Melamine in yogurt. For powdered infant formula, powdered milk/milk solids or whole milk, please see the appropriate application bulletin.

2. Range of Detection

160 - 4,000 ng/mL (ppb). Samples with higher concentrations must be diluted further and re-analyzed.

3. Materials Required (Not Provided)

Pipettes capable of delivering 100 and 900 μ L

Glass vials with Teflon lined caps

Sonicator or vortexer

Centrifuge capable of spinning at 3,000 x g

Centrifuge tubes

Methanol

10% MeOH/20 mM PBS, pH 7.2-7.4

ABRAXIS[®] Melamine ELISA Kit (PN 50005B)

4. Preparation of Solutions

10% MeOH/20 mM Phosphate Buffered Saline (PBS), pH 7.4: To 800 mL of distilled or deionized water, add: Sodium phosphate dibasic anhydrous 2.277 g; Sodium phosphate monobasic monohydrate 0.548 g; Sodium chloride 18.0 g, add 100 mL of methanol and then bring to 1 L with distilled or deionized water, pH 7.2-7.4.

5. Notes and Precautions

To eliminate matrix interference from yogurt to be tested for the presence of Melamine, samples must be diluted in 10% MeOH/20 mM PBS.

6. Procedure

6.1. Yogurt samples (5 gm) should be weight into a glass vial.

6.2. 5 mL of 10% MeOH/20 mM PBS is added and mixed by vortexing for 1 minute.

6.3. Centrifuge sample at 3,000 RPM for 10 minutes and collect supernatant.

6.4. Dilute supernatant 1:4 in 10% MeOH/20 mM PBS. For example, adding 250 μ L of supernatant to 750 μ L of 10% MeOH/20 mM PBS.

6.5. The sample is now ready to analyze according to the procedure described in the ABRAXIS[®] Melamine ELISA Kit package insert.

7. Evaluation of Results

Results obtained for yogurt samples prepared as described above must be multiplied by a factor of 8 to account for the sample dilution. Only use results within the analytical range of the assay (20-500 ppb). Results lower than the lowest standard (20 ppb) should not be multiplied by a dilution factor and should not be reported as negative, but should be reported as < 160 ppb Melamine detected. Results above the highest standard must be diluted and re-analyzed.

8. Performance Data

The sample preparation procedure detailed above was used with yogurt spiked with various amounts of Melamine. Recoveries were between 105-140%.

9. For ordering or technical assistance contact

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