

Melamine in Egg (Chicken) Sample Preparation

1. Range of Detection

1,800-45,000 ng/mL (ppb). Samples with higher concentrations must be diluted further and re-analyzed.

2. Materials Required (Not Provided)

Microcentrifuge capable of spinning at 3,000 x g

Blender

Pipettes capable of delivering 100 and 900 μ L

Glass vials with Teflon lined caps

Methanol

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

3. 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.

4. Notes and Precautions

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

5. Procedure

5.1. Weigh 10 gm of a whole egg sample to a glass vial

5.2. Add 30 mL of methanol and mix well by shaking for 30 seconds

5.3. Pour into a blender and mix well for 60 seconds

5.4. Take a sample aliquot from 4.3 and centrifuge at 3,000 x g for 10 minutes. Sample should separate into 2 layers

5.5. Carefully remove a portion of the top layer

5.6. Dilute and aliquot of the top layer 1:30 in 10% MeOH/20 mM PBS. For example, adding 100 μ L of the extracted egg with 2.9 mL of 10% MeOH/20 mM PBS.

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

6. Evaluation of Results

Results obtained for egg samples prepared as described above must be multiplied by a factor of 90 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 < 1,800 ppb Melamine detected (using the dilution factor). Results above the highest standard must be diluted and re-analyzed.

7. Performance Data

The sample preparation procedure detailed above was used with whole eggs spiked with various amounts of Melamine. Average recoveries obtained were 90%.

8. For ordering or technical assistance contact

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Date this Technical Bulletin is effective: 05/16/2024

Version: 01

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