

Patulin in Pear Purée Sample Preparation

1. Intended Use

For the detection of Patulin in pear purée or pear sauce.

2. Sensitivity

7.5 ppb ($\mu\text{g}/\text{kg}$) in matrix

3. Materials and Reagents Required

Analytical balance, three-decimal places (PN 709040)

Micro-centrifuge tubes, 2.0 mL (PN 702027) and 15 mL (PN 702010)

Micro-centrifuge capable of spinning at 8,100 x g or 10,000 rpm (PN 709068)

Micropipettes with disposable plastic tips (PN 704022) (10-200 (PN 704044) and 200-1000 μL (PN 704054)

Multi-channel pipette (PN 704045) 50-250 μL or stepper pipette (PN 704041) with plastic tips (10-250 μL) (PN 704048) or (PN 704043)

4 mL glass vials with Teflon caps (PN 701031) or 12 x 75 mm borosilicate glass tubes (PN 702009)

Deionized water

Heat block/tube incubator at 45°C (PN 709003)

Disposable pipettes, 2 mL (PN 704100)

Serological pipettes, 5 mL (PN 704064) or 10 mL

Rotator (PN 709035) and/or shaker

Vortex mixer (PN 709045)

Microtiter plate reader with wavelength 450 nm (PN 475007)

ABRAXIS® Patulin ELISA Kit (PN 500106)

ABRAXIS® Patulin 1X6 ELISA Kit (PN 500110)

4. Notes and Precautions

This procedure is intended for use with pear purée and pear sauce. Other matrices should be thoroughly validated before use with this procedure.

- Analysis should be performed with the ABRAXIS® Patulin ELISA Kit or the ABRAXIS® Patulin 1X6 ELISA Kit (PN 500110) as soon as possible after extraction. Samples should not sit more than 24 hours in the plastic micro-centrifuge tubes before being diluted and analyzed.
- This procedure is for research use only. It is not intended for diagnostic procedures.

5. Procedure

5.1 Weigh 0.5 ± 0.05 g of sample into an appropriately labeled 15 mL plastic centrifuge tube.

5.2 Add 5.0 mL of 1X Sample Diluent, vortex thoroughly for 10 seconds. Mix using a rotator for 10 minutes.

5.3 Let sample settle for >2 minutes.

5.4 Transfer 2.0 mL of sample to a 2 mL micro-centrifuge vial. Centrifuge for 5 min at 8,100 X g or 10,000 rpm in micro-centrifuge. Save the supernatant.

5.5 Dilute the supernatant 25-fold by adding 40 μ L of supernatant to 960 μ L 1X Sample Diluent in 4 mL glass vial or 12 x 75 mm borosilicate glass tube. Vortex to mix.

5.6 Proceed to Section F. Assay Procedure, step 1 of the ABRAXIS® Patulin ELISA Kit or ABRAXIS® Patulin 1X6 ELISA Kit (PN 500110) user's guide.

6. Evaluation of Results

The ELISA results must be multiplied by a factor of 250 to account for the necessary dilution. Samples showing a concentration lower than Standard 1 (0.03 ppb) should be reported as < 7.5 ppb of Patulin.

Samples showing a higher concentration than Standard 5 (0.90 ppb) can be reported as 225 ppb or diluted further and re-analyzed to obtain an accurate quantitative result.

7. For ordering or technical assistance contact:

Gold Standard Diagnostics

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

Version: 01