

Glyphosate in Plant-Based Cooking Oils Sample Preparation

1. Intended Use

For the detection of Glyphosate in plant-based cooking oils.

2. Sensitivity

0.225 ppb in matrix

3. Materials and Reagents Required

Microcentrifuge tubes, 2.0 mL

Microcentrifuge

4 mL glass vials with Teflon-lined caps

Pipettes capable of dispensing 100 μ L-1,000 μ L

Disposable pipette tips

Deionized water

ABRAXIS[®] Glyphosate ELISA kit (PN 500205)

Vortex mixer (optional)

Graduated disposable transfer pipettes (optional)

4. Notes and Precautions

This procedure is intended for use with plant-based cooking oils. Other matrices should be thoroughly validated before use with this procedure.

- Assay should be performed with ABRAXIS[®] ELISA kit as soon after extraction as possible. Samples should not sit more than one day in plastic microcentrifuge tubes before being run with the ELISA kit.
- This procedure is for research use only. It is not intended for diagnostic procedures.

5. Extraction Procedure

5.1 Measure 0.5 mL of sample into 2.0 mL microcentrifuge tube.

5.2 Add 1.5 mL of deionized water to sample.

5.3 Shake vigorously by hand or use a vortex mixer for 1 minute.

5.4 Centrifuge for 5 minutes at \sim 14,000 x g. Make sure the centrifuge is properly balanced.

5.5 Remove the bottom layer (water extraction) of the centrifuged sample to be analyzed into a clean microcentrifuge tube or 4 mL glass vial with Teflon-lined cap.

5.6 Derivatize the sample according to Section D Test Preparation in step 7 of Derivatization of Standards, Control and Samples instructions of the ABRAXIS[®] Glyphosate ELISA kit.

5.7 Perform assay as noted in Section F Assay Procedure instructions provided in the kit.

6. Evaluation of Results

The ELISA results must be multiplied by a factor of 3 to account for the necessary dilution. Samples showing a concentration lower than Standard 1 (0.075 ppb) should be reported as < 0.225 ppb of Glyphosate. Highly contaminated samples (those outside of the calibration range of the assay) must be diluted using the ABRAXIS[®] Glyphosate Sample Diluent included in the ABRAXIS[®] Glyphosate ELISA kit, and re-analyzed to obtain an accurate quantitative result.

7. For ordering or technical assistance contact:

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Ordering: info.abraxis@us.goldstandarddiagnostics.com

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