

Glyphosate in Tea Leaf Extraction Sample Preparation

1. Intended Use

For the detection of Glyphosate in tea leaves.

2. Sensitivity

7.5 ppb in matrix

3. Materials and Reagents Required

Glass vials – 4 mL and 20 mL with Teflon-lined caps

Deionized water

Serological pipettes, 5 mL or 10 mL

Clean-up Reagent (PN 500094)

Microcentrifuge tubes, 2.0 mL

Microcentrifuge capable of 14,000 x g

Millipore Amicon Ultra 0.5mL 10k centrifugal filter units

Rotator and/or shaker

Vortex mixer

ABRAXIS® Glyphosate Sample Diluent (PN 500082)

ABRAXIS® Glyphosate ELISA Kit (PN 500205)

4. Notes and Precautions

This procedure is intended for use with tea samples. Other matrices should be thoroughly validated before use with this procedure.

- Assay should be performed with ABRAXIS® Glyphosate 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 ABRAXIS® Glyphosate ELISA kit.
- This procedure is for research use only. It is not intended for diagnostic procedures.

5. Extraction Procedure

5.1 Weigh 0.5 g of tealeaf sample to 20 mL glass vial.

5.2 Add 10 mL of deionized water to sample (20-fold dilution).

5.3 Vortex vigorously for 10 – 15 seconds and put sample on rotator or shaker at 40 rpm for 10 minutes.

5.4 After mixing, let sample settle for at least 2 minutes.

5.5 Aspirate 4.0 mL of extracted sample to a clean, appropriately labeled 20 mL glass vial containing 100 mg of Clean-Up Reagent.

5.6 Vortex or mix well by shaking for 30 seconds. Let sample settle for at least 2 minutes.

5.7 Centrifuge tube at 14,000 x g for 5 minutes. Make sure the centrifuge is properly balanced.

5.8 Pipette 0.5 mL of the separated liquid into a Millipore Amicon Ultra filter and the appropriately labeled 2 mL microcentrifuge tube that are provided in the kit.

5.9 Centrifuge filter/tube unit at 14,000 x g for 5 minutes.

5.10 Dilute the filtrate 5-fold in ABRAXIS® Glyphosate Sample Diluent included in the ABRAXIS® ELISA kit by pipetting 0.2 mL of the filtrate that is collected in the microcentrifuge tube to 0.8 mL of ABRAXIS® Glyphosate Sample Diluted in clean, appropriately labeled 4 mL glass vial.

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

5.12 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 100 to account for the necessary dilution. Samples showing a concentration lower than Standard 1 (0.075 ppb) should be reported as < 7.5 ppb of Glyphosate. Highly contaminated samples (those outside of the calibration range of the assay) must be diluted and re-analyzed to obtain an accurate quantitative result.

7. For ordering or technical assistance contact

Gold Standard Diagnostics

124 Railroad Drive

Warminster, PA 18974

WEB: www.abraxiskits.com

Phone: (215) 357 3911

Fax: (215) 357 5232

Ordering: info.abraxiskits@us.goldstandarddiagnostics.com

Technical Support: support.abraxiskits@us.goldstandarddiagnostics.com

Date this Technical Bulletin is effective: 28FEB2022

Version: 01