

Glyphosate in Gelatin Sample Preparation

1. Intended Use

For the detection of Glyphosate in gelatin.

2. Sensitivity

4.5 ppb in matrix

3. Materials and Reagents Required

Analytical balance

Glass vials – 20 mL or 40 mL with Teflon-lined caps

Deionized water

Formamide, FW: 45.04

Any size glass beaker or bottle

Microwave or hot plate capable of boiling deionized water

Serological pipettes, 5 mL, 10 mL, or 25 mL

ABRAXIS® Glyphosate Plate ELISA Kit (PN 500205)

Vortex mixer Rotator (optional)

4. Notes and Precautions

This procedure is intended for use with powdered gelatin products. Other matrices should be thoroughly validated before use with this procedure.

- Analysis should be performed with the ABRAXIS® Glyphosate Plate ELISA Kit as soon as possible after extraction. To make 10% formamide solution: add 10 mL formamide to 90 mL deionized water in glass bottle or beaker.
- This procedure is for research use only. It is not intended for diagnostic procedures.

5. Procedure

5.1. Heat 10% formamide in glass bottle/beaker to a boil using a hot plate or microwave.

5.2. Weigh 0.5 g of sample to 40 mL glass vial.

5.3. Add 30 mL of hot 10% formamide to sample (1:60 dilution).

5.4. Vortex vigorously until sample dissolves. Optional: rotate sample vials for 10 minutes or until sample dissolves. If sample does not dissolve, then place the sample vial in warm water bath for few minutes and vortex.

5.5. Let sample cool to room temperature. This will then be analyzed as sample, see *Derivatization of Standards, Control and Samples* in the Test Preparation section of the ABRAXIS® Glyphosate Plate ELISA Kit user's guide.

6. Evaluation of Results

The ELISA results must be multiplied by a factor of 60 to account for the necessary dilution. Samples showing a concentration lower than Standard 1 (0.075 ppb) should be reported as < 4.5 ppb of Glyphosate. Samples showing a higher concentration than Standard 5 (4.0 ppb) can be reported as > 240 ppb or diluted further and re-analyzed to obtain an accurate quantitative result.

7. For ordering or technical assistance contact:

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