

Glyphosate in Wine and Grape Juice Sample Preparation

1. Intended Use

For the detection of Glyphosate in wine and grape juice.

2. Range of Detection

The range of detection is 0.375 ppb to 20 ppb in matrix. If samples exceed calibration, are known to contain higher analyte levels, or a higher detection range is necessary, samples should be diluted further prior to analysis.

3. Materials Required (not provided)

Vortex mixer

Micropipettes with disposable plastic tips

Disposable pipette tips

12 x 75mm glass test tubes

Test tube rack

Microcentrifuge tubes, 2.0 mL

Microcentrifuge capable of spinning at 8100g

Millipore Amicon Ultra 0.5Ml 10k centrifugal filter units (For use with Method 5.1)

ABRAXIS® Clean-up Reagent (PN 500094)

ABRAXIS® Glyphosate Sample Diluent (PN 500082)

ABRAXIS® Glyphosate Plate ELISA Kit (PN 500205)

4. Notes and Precautions

- Before dispensing any volume of liquid, condition each pipette tip by drawing the liquid in and out of the tip 3 times before the final dispense. This will ensure that an accurate volume is transferred.
- This procedure involves diluting wine or grape juice samples by a factor of 5 to account for potential interferences.

5. Procedure

Choose either Method 5.1 or 5.2 below

5.1 Using Millipore Amicon Ultra Filters:

5.1.1 Pipette 500 μ L of wine or grape juice sample into a Millipore Amicon Ultra filter and the appropriately labeled 2 mL microcentrifuge tube that are provided in the kit.

5.1.2 Centrifuge filter/tube unit at 8100 x g for 5 minutes.

5.1.3 Pipette 200 μ L of the filtrate that is collected in the microcentrifuge tube to a clean, appropriately labeled test tube and dilute with 800 μ L of ABRAXIS® Glyphosate Sample Diluent. Vortex to mix.

5.1.4 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.

5.2 Using Clean-up Reagent

5.2.1 Add 2.0 mL of sample to a clean, appropriately labeled 2.0 mL microcentrifuge tubes containing 50mg of ABRAXIS® Clean-up Reagent and vortex for 30 seconds.

5.2.2 Centrifuge ABRAXIS® Clean-up Reagent vials at 8100 x g for 5 minutes.

5.2.3 Pipette 200 μ L of the supernatant solution from the ABRAXIS® Clean-up Reagent vial to a clean, appropriately labeled test tube and dilute with 800 μ L of ABRAXIS® Glyphosate Sample Diluent. Vortex to mix.

5.2.4 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 5 to account for the necessary dilution. Samples showing a concentration lower than Standard 1 (0.075 ppb) should be reported as < 0.375 ppb of Glyphosate. Samples showing a higher concentration than Standard 5 (4.0 ppb) can be reported as > 20 ppb or diluted further and re-analyzed to obtain an accurate quantitative result.

7. For ordering or technical assistance contact

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