

Glyphosate in Beer Sample Preparation

1. Intended Use

For the detection of Glyphosate in beer (for light colored beers such as ales, lagers, pilsners, maibocks, IPAs; dark beers such as stouts and porters; and wheat beers such as Weiss biers, wit biers, weizenbiers, etc.).

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

Vortex mixer

Micropipettes with disposable plastic tips

12 x 75mm glass test tubes

Test tube rack

15 mL conical tubes

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 beer samples by a factor of 5 to account for possible interferences. Because dark colored beers and wheat beers tend to report higher glyphosate concentration on average (based on our own independent research), a higher dilution may be needed when testing beers of these types to generate a value within the linear range of the curve.

5. Procedure

5.1. Pour a small amount of beer into a 15 mL conical tube and place cap on tube.

5.2. Vortex tube on a vortex mixer for 2 minutes, stopping to unscrew the cap every 30 seconds to vent carbonation.

5.3. Pipette 200 µL of beer into a clean, appropriately labeled test tube and dilute with 800 µL of ABRAXIS® Glyphosate Sample Diluent.

Note: If sample still exhibits carbonation, i.e. bubbles, discard tip and vortex sample again, until no bubbles are present upon pipetting.

5.4. Vortex test tube to thoroughly mix.

5.5. This will then be analyzed as sample, see *Derivatization of Standards, Control and Samples* in the TestPreparation 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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