

Glyphosate in Beer Sample Preparation

1. Intended Use

For the detection of Glyphosate in Beer

2. Sensitivity

2 ppb in Matrix

3. Materials and Reagents Required

10 mL or greater volume size of plastic/glass bottles or vials with caps. Micropipettes with disposable plastic tips Disposable pipettes (optional) Vortex mixer (optional) Timer Deionized or distilled water ABRAXIS[®] Glyphosate Strip Test (PN 500095 [20T]; PN 500098 [5T])

4. Notes and Precautions

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

• 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.

5. Sample Preparation Procedure

- 5.1 Pour a small amount of beer into an appropriately labeled bottle or vial and cap. 2 mL of sample is normally sufficient for this procedure. A large amount of empty space must remain between the level of the sample and cap.
- 5.2 Shake vial for 1-2 minutes, stopping to unscrew the cap every 10-15 seconds to vent carbonation.
- 5.3 Measure 1 mL of sample into a clean appropriately labeled bottle or vial.

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

- 5.4 Add 3 mL of deionized or distilled water and mix.
- 5.5 This will then be analyzed as a sample with the ABRAXIS[®] Glyphosate Strip Test. Proceed to Sections E (Test Preparation) and F (Testing of Samples) in the ABRAXIS[®] Glyphosate Strip Test Kit user's guide.

6. Evaluation of Results

Beer sample concentration is determined by comparison of the intensity of the test line to the intensity of the control line on the same test strip. Although control line intensity may vary, a visible control line must be present for results to be considered valid. Test strips with a test line, which is darker than, or of equal intensity to the control line indicates a result, which is below the limit of detection of the test. Test strips with a test line, which is lighter than the control line indicates a result, which is between 2 ppb and 80 ppb. Test strips with a very faint test line or no test line visible indicates a result that is > 80 ppb. Results should be determined within 5-10 minutes after completion of the strip test procedure. Determination made using strips that have dried for more or less than the required time may be inaccurate, as line intensities may vary with drying time.

| Control Line | <u>Test Line</u> | Interpretation |
|-------------------------|--------------------------------------|------------------------------|
| No control line present | No test line present | Invalid result |
| Control line present | Very faint or no test line present | >80 ng/mL (ppb) |
| Control line present | Moderate intensity test line present | Between 2 and 80 ng/mL (ppb) |

The appearance of test strips may also be compared to the illustration below to determine approximate sample concentration ranges. Please note that the illustration is intended for the demonstration of test line to control line intensity only. Results should not be determined by comparing the intensity of test lines from test strips to the test line intensity of the illustration, as the overall intensity of test strips may vary slightly with different lots of reagents. To obtain semi-quantitative results in the range of 2-80 ppb, solutions of known Glyphosate concentration (control solutions) must be tested concurrently with samples. Sample test line intensities can then be compared with control solution test line intensities, yielding approximate sample concentrations. Do not use strips run previously to determine semi-quantitative sample concentrations, as test line intensities may vary once strips are completely dry.



7. Performance Data

The ABRAXIS[®] Glyphosate Strip Test for beer samples will detect in the range of 2 ppb or higher due to the 4-fold dilution required for sample preparation. At this level, the test line exhibits moderate intensity. At levels greater than 80 ppb, the test line is faint or not visible.

8. For ordering or technical assistance contact:

| Gold Standard Diagnostics | Phone: (215) 357 3911 |
|---------------------------|---|
| 124 Railroad Drive | Fax: (215) 357 5232 |
| Warminster, PA 18974 | Ordering: info.abraxis@us.goldstandarddiagnostics.com |
| WEB: www.abraxiskits.com | Technical Support: support.abraxis@us.goldstandarddiagnostics.com |

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