Lead Lateral Flow Rapid Lab Use

Catalog Number: AU2027-01

For Research Use Only. Not for use in Diagnostic Procedures.

1. Intended Use

For the screening of Lead in water samples greater than or equal to ≥ 10 ppb in a laboratory setting. Samples requiring regulatory action should be confirmed by other conventional methods.

2. Introduction

Attogene' s Lead Lateral Flow Rapid Detection Kit can be used to detect Lead in liquid samples. Format: 10 test cassettes, Run Time: 15 Minutes

Lead contamination is a serious worldwide environmental problem. As it is difficult to detoxify by chemical or biological methods, gradual lead ion accumulation in the nervous and cardiovascular systems of the human body can subsequently cause serious diseases. Long-term health consequences of drinking lead-contaminated water include kidney problems and high blood pressure for adults, and the physical and mental development delays in infants and children. Attogene' s Lead Lateral Flow test gives results conforming to the USEPA guideline of 15ppb in water and FDAs guideline for 10ppb in juice. Using the supplied pipette, simply fill the vial with your water sample, place the water into the sample port and wait 15 minutes.

3. Kit Contents

Component Name	Volume	Storage
Lead Cassette	10 each	RT
Sample Dilution Buffer	5 each	RT
Negative Control	5 each	RT
Manual	1 each	RT

4. Storage and Stability

- The kit should be stored at 2°C - 30°C until ready to use.
- The test must remain in the sealed pouch until use.

5. Required Materials Not Supplied

- Timer - For timing use
- Transfer pipettes
- Sample collection bottle
- Filters for turbid samples

6. Precautions

- The Lead Lateral Flow Kit provide preliminary qualitative test results. Analysis should be confirmed using quantitative tools.
- Prior to use, ensure that the product has not expired by verifying that the date of use is prior to the expiration date on the label.
- The test cassettes are individually packaged in a foil pouch with a desiccant & disposable pipette.
- Avoid cross-contamination of samples by using a new bottle and disposable pipette for each sample.
- It is good laboratory practice to use positive and negative controls to ensure proper test performance. Samples which do not contain Lead (negative controls) as well as samples containing known quantities of Lead (positive controls) should be analyzed with each lot of test strips to provide a reference for line intensity to be expected.

7. Water Collection and Storage

- Collect samples into a bottle and store refrigerated for up to 5 days. If samples must be held for greater than 5 days, samples should be stored frozen.
- Allow the test cassettes, running buffer, and samples to reach room temperature before testing.

8. Procedure

- Open two sealed cassette. Perform A and B for each sample evaluation.

A. Sample:

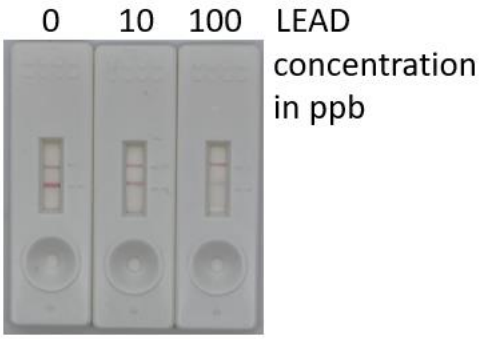
- Using the transfer pipet remove 200 µL of sample from the 125mL water sample bottle.
- Transfer 200 µL of the sample into a sample dilution buffer tube.
- Mix by pipetting up and down 3 times.
- Using the transfer pipet add the diluted sample directly into the sample port of the cassette.

B. Negative Control:

- Use the transfer pipet to transfer 200 µL of Negative Control into the sample port of the cassette.
- Set a timer for 15 minutes.
- Read results.

9. Interpretation of Results

For samples prepared as described above, screening concentrations are determined by comparison of the intensity of the test line to the intensity of the control line on parallel test strips. 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 test line of the control 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 strip indicates a result which is $\geq$ 10 ppb. Test strips with no test line visible (only the control line is visible) indicates a result which is $\geq$ 50 ppb. Results should be determined within 5 minutes after completion of the strip test procedure. Determination made using strips which have dried for more or less than the required time may be inaccurate, as line intensities may vary with drying time.



The appearance of test strips may also be compared to the illustration 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 0 – 20 ppb, solutions of known Lead 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.

10. Additional Analysis

If necessary, positive samples can be confirmed by other conventional methods. A lateral flow reader may also be employed to generate numerical readings from the visual result.

Who we are

Attogene is a biotechnology company located in Austin, Texas. Our focus is to enhance health and wellness by offering and developing customer focused Life Science Products domestically and internationally.

Our mission is to:

- Enhance detection technologies
- Enable rapid responses
- Enable impactful research discoveries

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