Capsaicin Lateral Flow Kit

Catalog Number: AU2046

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

1. Intended Use

For the screening of Capsaicin in liquid hot sauce samples at or above 10-20 ppb. To confirm the concentration of Capsaicin in the sample a standard curve of Capsaicin standard can be run along side the sample for more precise determination.

2. Introduction

Attogene' s Capsaicin Lateral Flow Kit can be used to detect Capsaicin in liquid Hot Sauce samples.

Format: Rapid-Hot Sauce - Run Time: 10-15 Minutes

3. Kit Contents

Component Name	Volume	Storage
Capsaicin Cassette	10 each	RT
Sample Dilution/Running Buffer	5mL	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
- Marker – for labeling

6. Precautions

- The Capsaicin Lateral Flow Kit provides preliminary qualitative test results. Using a lateral flow reader can add quantitative determination and numerical readouts. Instrumental analysis such as HPLC can also be used to obtain a confirmed quantitative analytical result.
- 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.
- Avoid cross-contamination of samples by using a new bottle for each sample.

- Use only Capsaicin Lateral Flow Kit reagents from one kit lot, as they have been adjusted in combination.
- It is good laboratory practice to use positive and negative controls to ensure proper test performance. Samples which do not contain Capsaicin (negative controls) as well as samples containing known quantities of Capsaicin (positive controls) may be analyzed with each lot of test strips to provide a reference for line intensity to be expected.

7. Procedure

- Using gloves, remove each lateral flow cassette from the foil pouch. A marker may be used to write on the plastic cassette if desired.

Perform A and B for each sample evaluation starting with the negative control first.

A. Negative Control (perform first):

- Transfer 200ul of the Negative Control (Sample Dilution/Running Buffer) directly into the sample port of the cassette with a 200ul pipette.
- Set a timer for 15 minutes.

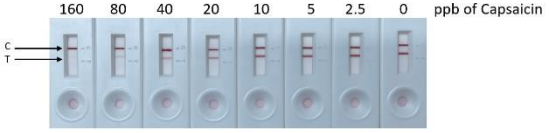
B. Sample:

- Next, add the Hot Sauce sample (1ul is typically used and can be diluted into Sample Dilution/Running Buffer, water or PBS buffer as needed to be within the range of the standards).
- Transfer 1ul of the Sample or positive standard into 200ul of Sample Dilution/Running Buffer in a 0.5ml tube.
- Mix the sample gently up and down 3 times using the 200ul pipette.
- Use the pipette to transfer 200ul from the tube directly into the sample port of the cassette.
- Set a timer for 15 minutes.

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

indicate 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 ≥ 10-20 ppb. Test strips with no test line visible (only the control line is visible) indicates a result which is ≥ 20 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.



Concentration of Capsaisin	Control Line	Test Line	Ratio
160 ppb	1193564	23296	0.02
80 ppb	1074569	164326	0.15
40 ppb	1322762	401944	0.3
20 ppb	988811	570541	0.58
10 ppb	1158916	949000	0.82
5 ppb	1116224	1014275	0.91
2.5 ppb	1139626	1100004	0.97
0ppb	1067261	1096337	1.03

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 Capsaicin concentration (control solutions) may 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 ELISA, HPLC, or other conventional methods. A lateral flow reader may also be employed to generate numerical readings from the visual result. Contact us if you have any questions.