

AlerTox Sticks is based on an immunochromatographic rapid test (lateral flow device) and may be used for qualitative detection of allergens specific antigens in foodstuff, beverages and working surfaces.

1. Test sensitivity and specificity

The sensitivity of the test may decrease in the case of heat-processed food or fat-rich samples (e.g. in presence of oil or cream).

If the visual test gives unclear results, we recommend rechecking the sample with quantitative laboratory methods, e.g. AlerTox ELISA.

Kit	Reference	Allergen	LOD*
Peanut	KT-6128	Peanut	1 ppm
Almond	KT-6127	Almond	10 ppm
Hazelnut	KT-6129	Hazelnut	1 ppm

*determined in extraction solution.

2. Kit contents

- 10 test strips individually packed into foil pouches.
- 10 Sample Collection tubes (tube with yellow cap).
- 1 Sample Extraction Buffer tube, 125 mL (Nalgene tube).
- 10 spoons.
- 20 pipettes of 3 mL.
- Instructions for use.

3. Other required materials not provided with the kit

- Grinder, mortar or any other manual or automatic homogenization system to crush the sample.

4. Sample handling

The samples should be brought to a temperature between +18°C to +35°C before use; testing of colder samples diminishes the sensitivity of the assay; testing of hot samples is NOT possible!

5. Types of sample that can be tested

The test is designed to detect the target antigen in two types of matrices:

- **Solid foods.**
- **Liquid samples:** beverages, rinses from cutters and washes from surfaces used in production and storage of foods etc.

6. Test procedure for solid foods

1. Allow test strips to reach room temperature for 5-10 minutes before opening the pouches.
2. Crush the sample to obtain a powder consistency as fine as possible. Use a mortar or a mechanical homogenizer.
3. Add 10 mL of Sample Extraction Buffer using the pipette provided into the Sample Collection tube (tube with yellow cap).
4. Put 1 gram of sample into the Sample Collection tubes (tube with yellow cap, supplied) using the spoon provided as indicated in the chart below:

Type of food	Examples	Spoonful
Flours, fine powders	Corn flour, rice flour, milk powder, spices, etc.	1
Fine crumbs	Bread, cookies, cakes, snacks, etc.	1
Liquids and sauces	Milk, juice, condensed milk, yogurt, soup, gravy, sauce, cream, etc.	1
Meat, fish and cold meat	Meat, fish, sausage, black pudding, paté, canned meat and fish, etc.	1

5. Screw the tube cap securely and shake it **vigorously** for 15-20 seconds.

6. Allow to settle for 2 minutes.

7. Open the pouch with scissors, taking care not to damage the test strip.

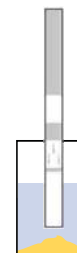
8. Dip the test strip into the liquid portion of the test solution. Avoid touching the settled food with the strip.

Caution: Ensure the test strip is dipped as shown in the figure below. The direction and the depth of immersion must be as shown for correct operation.

Allow the strip to remain in the solution for at least 30 seconds or until the liquid is absorbed.

9. Remove the test strip and place onto a CLEAN flat surface; **do not touch or move the test strip for 5 to 10 minutes.**

10. Read the test result (see Interpretation of the results).



7. Test procedure for liquid materials

Liquid samples – beverages, wash-outs from kitchen dishes or technological surfaces (eg cutting machines) may be tested directly. The limitation for liquid samples is their viscosity and turbidity (presence of particulate matter). If the specimen is too viscous and will not come in contact with the test zone of the strip, it should be diluted in warm boiled water. In this case, the sensitivity level of the test should be adjusted by the dilution factor. Turbid specimens should be filtered (paper or textile filter) or allowed to sediment.

1. Allow test strips to reach room temperature for 5-10 minutes before opening the pouches.
2. Collect 3 mL of liquid you wish to test using provided pipette (3 mL) into a Sample Collection tube.
3. Add an equal volume of Sample Extraction Buffer (3 mL), using the pipette provided, screw the cap and mix by gentle shaking or end-over-end rotation the tube.
4. If the liquid is cloudy, let it settle.
5. Then follow the instructions from point 5 of test procedure for solid materials outlined above.

8. Interpretation of the results

Test is considered **POSITIVE** if TWO colored lines appear in the test zone.



Test is considered **NEGATIVE** if only ONE colored line is clearly visible.



If NO colored line is formed, the test is **INVALID**.



Try to repeat it with another test strip, check the correct sample handling and test procedure, expiration date and storage conditions.

9. Precautions

- The test strips should be stored at a temperature between +18°C to +35°C.
- Use the test no more than 10 minutes after opening the pouch because the test strips are very sensitive to moisture.
- DO NOT TOUCH the reaction membrane.
- Do not use the kit when the pouch containing the test strip is broken or damaged.
- All the components of the test kit are disposable; they are for single use.
- Do not use the test strips beyond the expiration date.