AlerTox® Sticks
Rapid Almond Allergen Detection
Limit of detection: 20 ppm
Pack size: 10 tests
Intended use
AlerTox Sticks Almond is an immunochromatographic rapid test for the qualitative detection of almond antigen in food, kitchens and production facilities.

Introduction
Almond (Prunus dulcis) belongs to the Rosaceae family, which also includes apple, pear, peach, cherry, plum, nectarine, apricot, and strawberry, though almond allergy is traditionally considered as a tree nut allergy. Almond allergy can display a variety of symptoms, from mild oral allergy or hives to severe life-threatening systemic reactions, i.e. anaphylactic shock or bronchial asthma. Allergy to almond nuts is one of the rarest among tree nut allergies and most of the cases are reported in children.

Food Allergen Labeling and Consumer Protection Act (FALCPA) identified tree nut allergy as one of the major food allergies, and the presence of specific types of nuts should be labeled on the package. In the EU, tree nuts are included in the list of allergens established by the European Food Safety Authority, whose presence must be indicated in foods according to Regulation (EU) No. 1169/2011 Annex II.

Test sensitivity and specificity
AlerTox Sticks Almond uses a combination of monoclonal antibodies against a major almond antigen, the legumin-like 11S seed storage protein prunin/amandin, known as allergen Pru du 6. AlerTox Sticks Almond does NOT detect the antigens of cereals, legumes and other nuts, including walnut, pecan, peanut, hazelnut, cashew, macadamia, Brazil nut and coconut.

PLEASE NOTE: The test shows a considerable cross-reactivity in pit extracts of the fruits of Prunus and related genuses: peach, plum and apricot. If these pits are crushed during industrial processing of fruit masses (for example, in the production of jam), the resulting material may show false positivity with AlerTox Sticks Almond.

The LOD (limit of detection) of AlerTox Sticks Almond is 20 ppm of almond protein. The range of detection (ROD) is 20-10,000 ppm. Above this range, the test can present a hook effect. The hook effect can appear as a negative result or as a test line with reduced intensity. If a false negative due to hook effect is suspected, repeat the test on a diluted sample.

The sensitivity of the test decreases in an environment rich in fats (for example, in the presence of oil or creams).

If you need to quantify the amount of antigen, please acquire AlerTox ELISA Almond (KIT3049/KT-5910).

Kit contents
- 10 immunochromatographic sticks individually packed in foil pouches
- 10 sample collection tubes (tube with yellow cap)
- 10 sample extraction buffer tubes, 10 mL (tube with blue cap)
- 10 spoons
- 10 pipettes (3 mL- only for testing liquid samples)
- 10 small pipettes
- 10 swabs (only for testing surfaces)
- Instructions for use

Other materials not supplied
- Grinder, mortar or any other manual or automatic homogenization system to crush the sample
- Scissors
- Optional: digital scale sensitive to 0.1 g

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Precautions

• The test sticks must be stored at a temperature between 10 ºC and 30 ºC (50 ºF and 86 ºF).
• Use the test within 10 minutes after opening the foil pouch.
• Do not touch the white end of the stick.
• Do not use the test stick when its pouch is torn, or the stick is broken or damaged.
• All the components of the test kit are disposable; do not reuse them.
• Do not use the test sticks beyond the expiry date.

Sample handling

The samples must be brought to a temperature between 18 ºC and 35 ºC (64.4 ºF and 95 ºF) before use. The test is designed to detect the target antigen in:

• Solid food.
• Liquid samples: beverages, washwater from cutting equipment and surfaces used in food processing and storage.
• Surfaces.

Validation

AlerTox Sticks Almond has been validated for the following matrices:

• Spices
• Flours
• Snacks
• Bakery products
• Dairy
• Bread and biscuits
• Meat and fish
• Tinned Sardine