

Detect allergens in food and additives

Allergeneye Immunochromatography

Egg, Milk (Casein), Milk (Whey), Wheat, Buckwheat,
Peanut, Crustacean, Soy, Sesame

Quick Manual for Food Product Testing

Precaution before testing

- Be sure that the kit is for the targeted allergen.

Each kit is color coded as follows.

Name of allergen	Label color
Egg	Yellow
Milk (Casein)	Blue
Milk (Whey)	Purple
Wheat	Red
Buckwheat	Green
Peanut	Brown
Crustacean	Orange
Soy	Light Blue
Sesame	Black

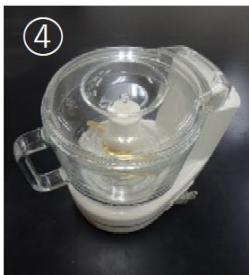
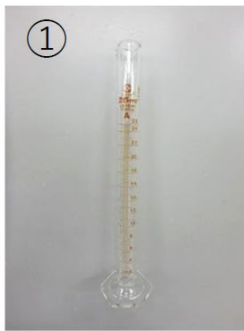
- Use the test kit within expiration date indicated on the outer box, transparent plastic bags and so forth.
- Store within the designated temperature(1~30°C).

Contents of the kit

- Packaging unit :20 tests

Name	Amount
1 Test strips (individual packaging in transparent plastic bag, with a plate-shaped desiccant)	20 strips
2 Detection reagent (5 tubes/1 bag package, freeze-dried product)	20 tubes (4 bags)
3 Specimen extraction solution	
Extraction solution (1) (10-time concentrated)	50 mL x 1
Extraction solution (2) (10-time concentrated)	50 mL x 1
4 Instruction Manual	1 copy
5 Detection reagent tube stand (10 holes, made of paper)	2 pieces

Required Materials (Not included in the kit)



- ① Graduated cylinder
 - ② Polypropylene centrifuge tube (50mL)
 - ③ Micropipettes which is capable of fractionating (1mL, 100 μ L)
 - ④ Food processor or mixer
 - ⑤ Induction cooker and pot for heating with boiling water
 - ⑥ Plastic gloves (Wear plastic gloves as needed. The photo used in this manual is taken with the gloves on.)
- Purified water
 - Filter paper (ADVENTEC No.5A, etc.)
 - Timer or stopwatch
 - Tube stand
 - Test tube mixer
 - Measuring instrument

*The items shown for preparation are examples, some substitutions are available, please contact us if you have any questions.

Operation procedure

1. Preparation of the specimen extraction solution

- Be sure to allow the kit to return to 20 to 25°C before using.
 - * Let the test strips and detection reagent return to the room temperature without taking them out of the bags.
- “Extraction solution (1)” may form precipitation if it has been in cold storage. In this case, put the entire container in a warm water bath to dissolve the precipitation completely.

① Prepare specimen extraction solution.

Mix the extraction solution (1) at ratio of 1, the extraction solution (2) at ratio of 1, and purified water at a ratio of 8.

Please see the table for adjustment in next page.

Number of samples to be tested	Minimum amount required for testing	Mixing substances		
		Extraction solution (1) (10-time concentration)	Extraction solution (2) (10-time concentration)	Purified water
1	20 mL	2 mL	2 mL	16 mL
2	40 mL	4 mL	4 mL	32 mL
3	60 mL	6 mL	6 mL	48 mL
4	80 mL	8 mL	8 mL	64 mL
5	100 mL	10 mL	10 mL	80 mL

*All specimen extraction solution is the same for Allergeneye Immunochromatography test kit.

2. Preparation of test samples



- ① Pulverize and mix the test sample in a food processor, mixer and so forth till homogenize.



- ② Measure and collect 1 g of homogenized sample into a 50 mL centrifuge tube.



- ③ Add 19 mL of specimen extraction solution.



- ④ Close the lid and agitate well with test tube mixer. (There will be some foaming, but it is not a problem)



- ⑤ Close the lid tightly and heat in boiling water for 10 minutes.



- ⑥ Agitate once every 5 minutes during heating. (Shake by hand)

* Open the lid gently with gloves and release air to avoid spillage during the agitation.



- ⑦ Place the sample in the water and cool till room temperature.



- ⑧ Filter the sample with a filter paper.

* If filtrate collection is difficult due to high viscosity of the filtrate, or too much oil, centrifuge ($3,000 \times g$ for 20 minutes in room temperature) before filtration.

* Make sure that the sample temperature is room temperature (20°C to 25°C) when conducting centrifugation.

- ⑨ Conduct testing while using the filtrate obtained in ⑧ as the test sample.

※Only for Wheat, dilution operation is necessary, please check following “3. For Wheat”

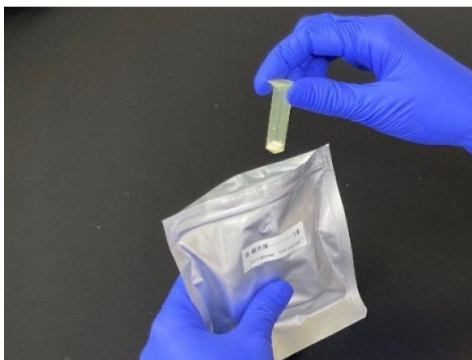
3. For Wheat

- ① Conduct testing while using the filtrate obtained in ⑧ which is then diluted to 5-times with specimen extraction solution as the test sample.
E.g.) Add 1mL of filtrate in 4mL of specimen extraction solution.
- ② Agitate well.
- ③ Conduct testing while using the filtrate obtained in ② as the test sample for wheat.

4. Testing with test strips

- Use after allowing them to return to room temperature in the bags if test strips and detection reagent are stored under refrigeration.

* Note: Conduct the operations ① to ⑤ within 15 minutes.



- ① Take the detection reagent out of the aluminum bag with fastener.

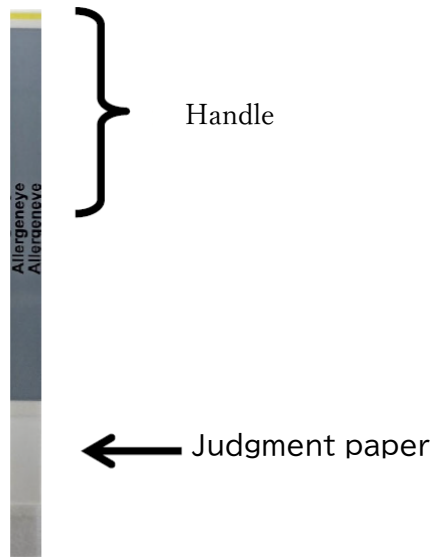
* Take the detection reagent out of the bag immediately before using and close the fastener tightly after taking it out.



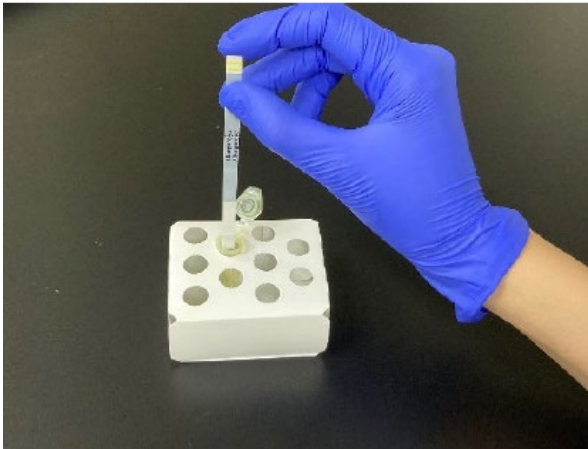
- ② Add 100 μ L of test sample to the detection reagent.



- ③ Agitate well for more than 10 seconds with the test tube mixer to dissolve the reagent completely.

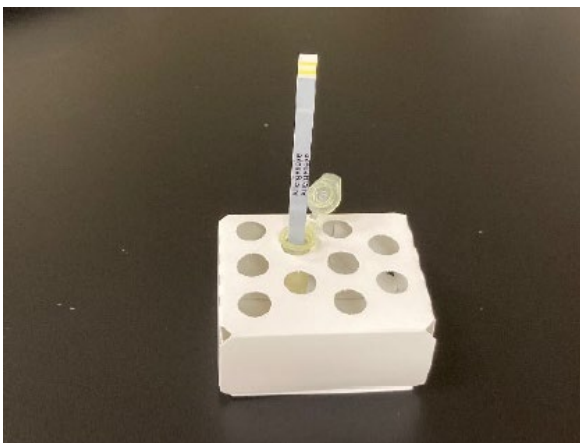


- ④ Take a test strip out of the transparent plastic bag.



- ⑤ Insert the test strip into the tube and keep it intact for 20 minutes.

* Make sure to insert that the end of the sample pad reaches the bottom of the tube.

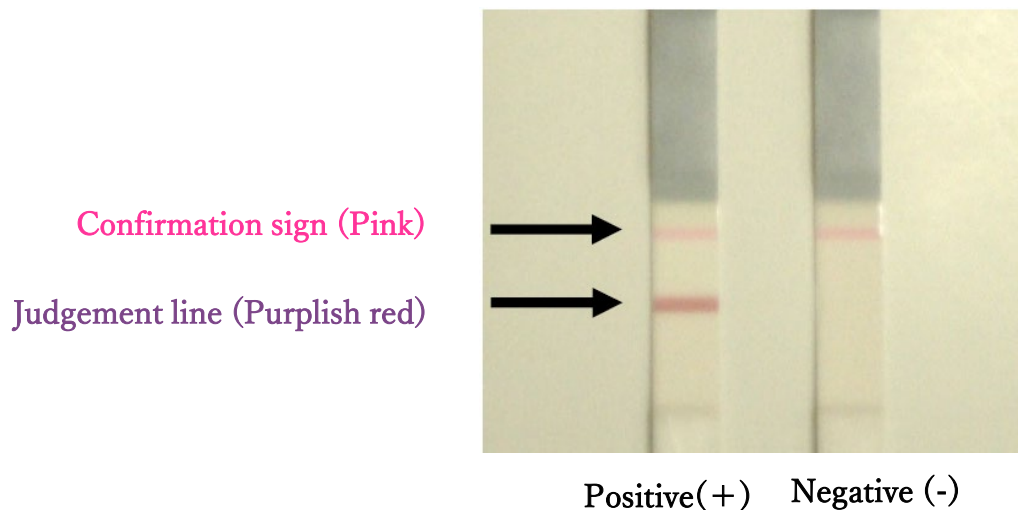


- ⑥ Remove the test strip after 20 minutes to judge the result.

*Absorb the remaining sample with a tissue paper to stop the reaction. Please put on the flat surface during this process.

5. Judgement

- Judge after checking that the pink confirmation sign is visible.
- Do not perform judgment after 20 minutes, as the density of the judgment line changes over time.



Positive: 2 lines, which are the purplish red judgment line and the pink confirmation sign, are both visible. This indicates that protein originating from food allergen is contained in the tested food product or swabbing solution at 2 ppm or higher.

Negative: Only the pink confirmation sign becomes visible with no judgment line. This indicates that protein originating from food allergen is not contained in the test sample, or that it is lower than 2 ppm even if it is contained.

Re-testing: In case of the confirmation sign is not visible, the test was not conducted properly. Hold the judgment, conduct the test again with a new test strip and detection reagent.

Precautions for use and handling

- Judgement should be processed in a bright room.
- Check the result at the same location at all times.
- Till the testing method is familiar, two or more people should make the decision.

6. Recording and storage the result

- ① If it is necessary to store the results, it is possible to tape the test strip on a sheet of copy paper and so forth. In this case, it is recommended that the sample pad is cut off with scissors or that the test sample is absorbed by pressing some tissue paper over it.
- ② The test date, sample name, judgment result and so forth can be written in the part above the judgment paper of the test strip (handle part).
- ③ Please write the result obtained after 20 minutes as judgment line may appear, or its color depth may change during storage.



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※ The information contained in this catalog may change without notice.

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