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Rapid Test Easy for Egg	(Cat.# M2241)
Rapid Test Easy for Casein	(Cat.# M2242)
Rapid Test Easy for Gluten	(Cat.# M2243)
Rapid Test Easy for Buckwheat	(Cat.# M2244)
Rapid Test Easy for Peanut	(Cat.# M2245)
Rapid Test Easy for Soya	(Cat.# M2246)
Rapid Test Easy for Crustacean	(Cat.# M2247)

For the Quick Detection of Protein of Allergenic Ingredients in PBS and water

10 tests

For Research or Laboratory Use Only Not for Use in Diagnostic Procedures Please read full descriptions in this manual before use

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Warnings

- 1. Store the kit at 2–30°C (35–86°F), and DO NOT FREEZE.
- 2. Do not use the kit after the expiration date indicated on the box.

1. Intended Use

Rapid Test Easy is intended for a quick detection of protein from allergenic ingredients on environmental surfaces (swab test) and in rinse water.

<u>NOTE:</u> For testing proteins of allergenic ingredients in food samples, use Rapid Test Pro II , Food Allergen ELISA or Food Allergen ELISA II .

2. Description of the Product

- A qualitative test in lateral flow immunoassay format for visual detection
- A simple sample preparation procedure
- Provide test results in 10 minutes
- · Available for the following solutions or solvents: phosphate buffered-saline (PBS) or water
- Performance characteristics of each kit are shown in Table1-7.

Table 1. Performance characteristics in Rapid Test Easy for Egg

Limit of detection	Surfaces (swab test):	0.5 ppm (μg of egg protein / mL of swab solution)
	Rinse water:	0.5 ppm (µg of egg protein / mL of rinse water)
Specificity	The antibody reacts wi	th ovomucoid

Table 2. Performance characteristics in Rapid Test Easy for Casein

	Surfaces (swab test):	0.4 ppm (µg of casein / mL of swab solution)
Limit of detection	Rinse water:	0.4 ppm (μg of casein / mL of rinse water)
	(0.4 ppm casein corres	spond to 0.5 ppm milk protein)
Specificity	The antibody reacts wi	th casein
Specificity		

Table 3. Performance characteristics in Rapid Test Easy for Gluten

	Surfaces (swab test):	0.4 ppm (μg of gluten / mL of swab solution)
Limit of detection	Rinse water:	0.4 ppm (µg of gluten / mL of rinse water)
	(0.4 ppm gluten corres	pond to 0.5 ppm wheat protein)
Specificity	The antibody reacts wi	th gliadin*

*Cross reacts to barley and rye

Table 4. Performance characteristics in Rapid Test Easy for Buckwheat

Limit of detection	Lingth of close stice	Surfaces (swab test):	0.5 ppm (µg of buckwheat protein / mL of swab solution)
	Rinse water:	0.5 ppm (µg of buckwheat protein / mL of rinse water)	
	Specificity	The antibody reacts w	th multiple buckwheat proteins

Table 5. Performance characteristics in Rapid Test Easy for Peanut

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Lincit of data stice	Limit of detection	Surfaces (swab test):	0.5 ppm (µg of peanut protein / mL of swab solution)
	LIMIL OF detection	Rinse water:	0.5 ppm (µg of peanut protein / mL of rinse water)
	Specificity	The antibody reacts wi	ith multiple peanut proteins

Table 6. Performance characteristics in Rapid Test Easy for Soya

Limit of detection	Surfaces (swab test):	0.5 ppm (µg of soya protein / mL of swab solution)
LIMIL OF detection	Rinse water:	0.5 ppm (μg of soya protein / mL of rinse water)
Specificity	The antibody reacts wi	th β-conglycinin

4. Preparation of Test Solution and Test Procedure <u>Precautions</u>

Make sure to avoid cross-contaminations via tubes, containers, pipettes, etc.

- The use of disposable materials is recommended.
- ✓ Prior to use, adjust the temperature of a *Test Stick* to 20–30°C (68–86°F) and open the package just before use. At low-temperature the *Test Stick* may not work properly.
- ✓ The **Test Solution** should be tested at room temperature (20-30 $^{\circ}$ C/ 68-86 $^{\circ}$ F).
- ✓ The presence of detergent, bleach or chlorine in *Test Solution* may affect assay results. It is recommended to check the influence before use.
- ✓ Neither touch the sample application slot nor the test window of a Test Stick.

(A) For swab test sample

- 1. Open a screw cap of *Swab kit*, and squeeze the swab bud to remove excess moisture.
- 2. Thoroughly wipe across (zigzagging) the specified surface area of 10 cm × 10 cm with the swab 1st pass in diagonal, and a 2nd pass in diagonal perpendicular to the 1st pass (Fig. 2 (a)).
- Place the swab into the bottle, cap tightly and shake it vigorously, not in a vertical direction. The resulting swab solution is referred to as *Test Solution* (Fig. 2 (b)).
- Place a *Test Stick* horizontally. Flip open the lid, invert and add 200 μL (4 drops) of *Test Solution* to the sample application slot by squeezing (Fig. 2 (c)).

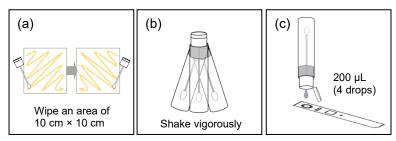


Fig. 2. Test steps for swab test sample

(a) Surface swabbing, (b) Sample preparation, (c) Application of Test Solution to a Test Stick

(B) For rinse water sample

- 1. Collect rinse water and referred to as *Test Solution* (Fig. 3 (a)).
- Place a *Test Stick* horizontally and add 200 µL of *Test Solution* to the sample application slot (Fig. 3 (b)).

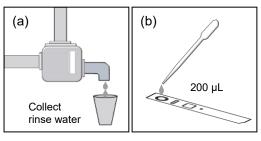


Fig. 3. Test steps for rinse water sample

(a) Sample preparation, (b) Application of Test Solution to a Test Stick

5. Results

- 1. Incubate the **Test Stick** for exactly 10 minutes at room temperature in a flat and horizontal surface.
- 2. Immediately interpret the results in a test window described below.

	Sample	e application slot Test window Confirmation window
(a) Positive		•
(b) Negative	0	•
(c) Invalid	0	•

Fig. 4. Interpretation of results

- (a) Positive: A red line in a test window together with red color in a confirmation window.
- (b) Negative: No line in a test window together with red color in a confirmation window.
- (c) Invalid: No color in a confirmation window.

<u>NOTE</u>: If there is no color in a confirmation window, retest with a new **Test Stick**. False-negative results may occur depending on the condition of the target protein.

If false-negative results occur at high concentrations of the target protein (hook effect), retest with a diluted **Test Solution**.

6. Warranties

Morinaga BioScience, Inc. makes no warranty of any kind, either expressed or implied, except that the materials from which its products are made are of standard quality. Buyer assumes all risk and liability resulting from the use of this product. There is no warranty of merchantability of the product, or of the fitness of the product for any purpose. Morinaga BioScience, Inc. agrees to replace any defective product, but expressly disclaims liability for damages, including special or consequential damage, or expenses arising directly or indirectly from the use of this product.

Table 7. Performance characteristics in Rapid Test Easy for Crustacean

Limit of detection	Surfaces (swab test):	0.5 ppm (µg of crustacean protein / mL of swab solution)
Limit of detection	Rinse water:	0.5 ppm (µg of crustacean protein / mL of rinse water)
Specificity	The antibody reacts wi	th tropomyosin

Swab kit

3. Kit Components

Component	Amount	
Test Stick	10 packs (1 stick/pack)	
Swab kit *	10 bottles	
* It contains 10) mL of PBS per bottle.	
Sample a	pplication slot Test window Confirmation window	
	Test Stick	
Fig. 1. Componer	nts	