



Product Information & Manual

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Gliadin Allergen EasyRead Rapid Test

Kit (10T/Box)

Cat no. LDG0003LR

Description

Gluten, a storage protein in wheat, rye, and barley, is a common food allergen, with gliadin being the primary trigger for immune reactions in gluten-related disorders. Adherence to a strict gluten-free diet is essential for affected individuals to mitigate health risks. According to Codex (ALINORM 08/31/26) and EU Regulation (EU) No 828/2014, food products labeled as "gluten-free" must contain a gluten content below 20 ppm. This standard serves as the primary global reference for gluten-free labeling. Therefore, establishing a rapid and reliable gluten screening method is of great importance for food manufacturing quality control and consumer self-testing.

The Gliadin Allergen EasyRead Rapid Test Kit is a lateral flow immunoassay designed for the rapid screening of gliadin in various samples. Utilizing the sandwich lateral flow immunoassay principle, specific antibodies capture and visualize target analytes, forming visible lines on the strip to provide fast results without additional equipment. To eliminate the "Hook effect" — where extremely high analyte concentrations saturate antibodies and cause false-negative or underestimated results — this test strip is specially engineered with an H line (Hook effect line). The H line ensures accurate and reliable determination even at

exceptionally high concentrations, allowing quality control personnel to effortlessly verify regulatory compliance based on the color intensities of the Control line (C), Test line (T), and Hook effect line (H). Positive results should be further confirmed using appropriate quantitative methods.

Kit Components

Gliadin Lateral Flow Device	10 pcs
Prefilled Extraction Tube with Dropper Tip and Scoop (2 mL Extraction Buffer/bottle)	10 bottles
Single-use Dropper	10 pcs
Single-use Sampling Swab	10 pcs
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Sample Requirements and Dilution Conditions

Sample Type	Dilution Requirements
Solid/Liquid Samples	Take 0.2 g (or 200 µL) of sample and immerse it in Extraction Buffer for lysis.
Environmental Swab Samples	Collect a surface sample from a 10 × 10 cm area using a swab and immerse the swab in Extraction Buffer for lysis.

Protocol

- Solid/Liquid Samples
 1. Clean hands thoroughly before operation to minimize gluten contamination risks.
 2. Remove the test device from the foil pouch and place it on a clean and level surface.
 3. **For Solid Samples:** Weigh 0.2 g of the homogenized sample and place it into the

Extraction Tube. **For Liquid Samples:** Add an equivalent volume (200 µL)/weight of sample to the Extraction Tube, ensuring it thoroughly contacts the buffer.

4. Tighten the cap and shake the tube vigorously to ensure full contact between the sample and the extraction buffer.
5. Let the tube stand for 1 minute to allow complete sample lysis.
6. Open the dropper tip cap and dispense 5 drops (approximately 100 µL) of the sample supernatant into the sample well of the test device.
7. Interpret the result after 5 minutes. Do not interpret results after 15 minutes.

• Environmental Swab Samples

1. Clean hands thoroughly before operation to minimize gluten contamination risks.
2. Remove the test device from the foil pouch and place it on a clean and level surface.
3. Pre-wet the single-use sampling swab with the buffer from the Extraction Tube.
4. Use a crosshatch technique to swab a 10 × 10 cm surface area for sample collection, ensuring full contact with the swab bulb.
5. Immerse the swab sample into the Extraction Tube, then roll the swab at least five times.
6. Let the swab stand in the Extraction Tube for 1 minute.
7. Remove the swab, tighten the tube cap, and dispense 5 drops (approximately 100 µL) of the sample solution into the sample well of the device.
8. Interpret the result after 5 minutes. Do not interpret results after 15 minutes.

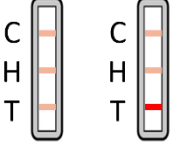
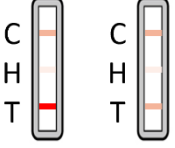
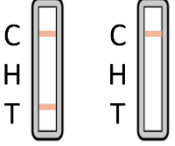
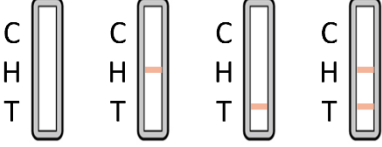
Note:

1. To prevent accidental ingestion of Extraction Buffer, first transfer the sample to a separate container for testing. Do not consume the sample after testing.
2. For Environmental Swab Samples, please clean the sampled area with water and alcohol after collection.

Materials required but not provided

1. Micropipette
2. Electronic balance
3. Grinder or homogenizer
4. Timer

Result Interpretation

Result	Result Window	Result Interpretation
Negative		A distinct signal appears at the C line, while no line appears at the T line. The signal intensity of the H line is stronger than that of the C line. This indicates that gluten is not detected or the Gluten concentration is below 0.1 ppm.
Weak Positive		Signal lines appear at both the C and T regions. The signal intensity of the H line is equal to or stronger than that of the C line. This indicates a low concentration of gluten (Gluten content approx. 0.1 ppm - 10 ppm).
Positive		Signal lines appear at both the C and T regions. However, the H line intensity is significantly weaker than the C line. This indicates a high concentration of gluten (Gluten content approx. 10 ppm - 100 ppm).
Hook Effect / High Positive		A clear signal appears at the C line, but the H line is completely absent. The T line may or may not be visible. This indicates an extremely high concentration of gluten in the sample (Gluten content is 100 ppm or above).
Invalid		No colored line in the Control region (C) indicates an invalid test. Repeat the test with a new strip, as this suggests improper procedure or a damaged strip.

Performance

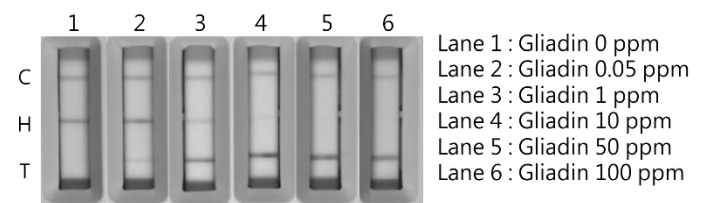
This product is optimized to detect wheat gliadin below 10 ppm, corresponding to wheat gluten below 20 ppm. The minimum analytical detection limit can reach down to 0.05 ppm for Gliadin (equivalent to 0.1 ppm for Gluten).

Storage

1. Test kits should be stored at room temperature.
2. Test devices must remain in the sealed foil pouch until use, as they are sensitive to humidity.
3. Test kits are for single use only and should not be reused.

4. Do not use the kit if the package is damaged, or the physical appearance is altered.

Example



Disclaimer

For Research Use or Further Manufacturing Only.