# Making the World's Food Safer®





# AgraStrip® Gluten G12

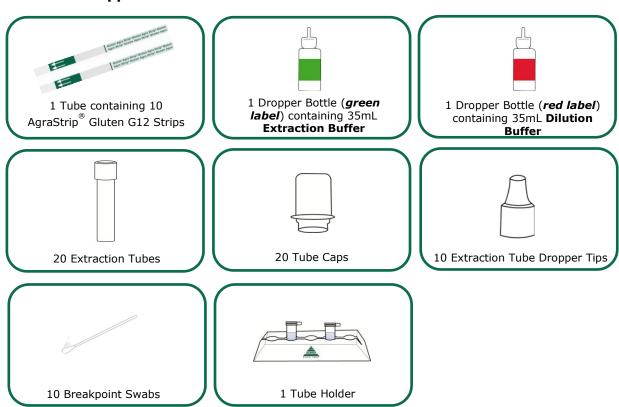
# Order #: COKAL0200AS

**Limit of detection (LOD):** adjustable  $5 - 10 - 20 \mu g/kg$  (=ppm) Gluten

#### Intended use:

The AgraStrip<sup>®</sup> Gluten G12 Test Kit is a lateral flow assay for the detection of Gluten content in food, rinse waters and environmental swab samples.

## Materials supplied with the kit:



### **Assay principle:**

The AgraStrip® Gluten G12 Test Kit is an immunochromatographic test for the detection of gluten in foodstuffs. The test kit uses a new monoclonal antibody called G12 that specifically recognises the pathogenic fragment of the gliadin protein present in gluten. This fragment is called 33-mer and triggers the auto-immune reaction in coeliac patients. During the test, the sample reacts with a coloured conjugate (anti-gliadin 33mer monoclonal antibody – red-coloured microsphere) which forms a complex with the reagent on the strip. This complex spreads along the membrane by capillary action. The AgraStrip® Gluten G12 is easy to use, fast and reliable.

#### **Precautions:**

- 1. The product must be stored in its original package, between 15 and 25°C. Do not use components beyond the expiration date indicated on the kit labels. Do not open the product until needed.
- 2. Test strips must be kept inside their original packaging, closed as tightly as possible. Do not freeze.
- 3. Adhere to the instructions for test procedures.
- 4. The components in this test kit have been quality control tested as a standard batch unit. Do not mix components from different lot numbers.

### Sampling:

Consideration must be taken that the food may contain an uneven distribution of Gluten (spot contamination). It is important to test a representative portion of food as only a small amount of material is tested with the AgraStrip® Gluten G12 test.

#### **Detection:**

The detection limit of the AgraStrip<sup>®</sup> Gluten G12 test is at the low ppm level but will vary depending on the food matrix being tested. AgraStrip® Gluten G12 may also be used to provide results corresponding to various cut-off values (therefore please refer to the Dilution Guide on Page 4 in the assay section for further To give reliable results each individual matrix should be validated before the kit is used routinely. For further information regarding validation please contact Romer Labs®.

#### Note:

Chocolate and flour samples may block the filter tip of the extraction tube. This can be avoided by transferring the extract directly into the  $2^{nd}$  Extraction Tube using a pipette.

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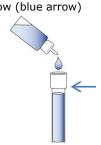
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# **Finished Products Testing**

**1.** Homogenize the sample (i.e. blend, crush, grind)



**4.** Fill Extraction Tube with **Extraction Buffer** to level shown below (blue arrow)



**2.** Weigh **0.2g** of sample (with Balance or estimate by filling up one of the extraction tube caps)



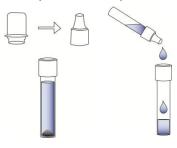
**5.** Close tube with tube cap, and shake vigorously by hand for **1** minute



**3.** Add sample to extraction Tube



**6.** Remove cap from the Extraction Tube and replace with dropper tip. And transfer **3 drops** ( $100\mu l$ ) to a new tube (incubation vial)



Proceed to the Assay Section (page 4) to complete your test

# **Swab Testing**

**1.** Fill extraction tube with **Extraction Buffer**, take a swab and wet the end by dipping into the buffer



**4.** Close the tube with a cap and shake vigorously for **1 minute** 



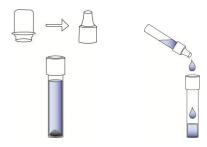
**2.** Wipe an area of *5cmx5cm* using side to side movements, rotating the swab tip as you go (we recommend the "crosshatch" swabbing technique indicated below)



**3.** Place the swab into the extraction tube. Carefully break off the end at the pre-scored point.



**5.** Remove cap from the Extraction Tube and replace with dropper tip. And transfer **3 drops** ( $100\mu$ I) to a new tube (incubation Vial)



Proceed to the Assay Section (page 4) to complete your test

## **Rinse water testing**

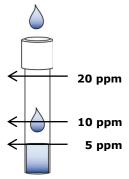
Add 0.5 mL of rinse water into an Extraction Tube



**Proceed to the Assay Section below to complete your test** 

## **Assay**

**1.** Transfer various amounts of **Dilution Buffer** (see table below) into the incubation vial already filled with extract

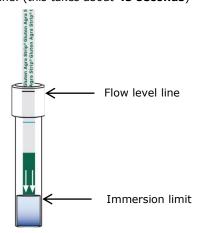


	Cut off level	Drops
Sample	20 ppm	80
	10 ppm	40
	5 ppm	20
Swabs	4mg	20
Rinse water		5

**2.** Close the incubation vial with a new cap and shake vigorously by hand for **15 seconds**, then put the vial into the tube holder



**3.** Take a test strip and place it vertically (arrows pointing down) into the incubation vial without exceeding the immersion limit indicated by the arrows. Allow liquid to soak up the strip to the "flow" level line. (this takes about **45 seconds**)



**4.** After the liquid has soaked up to the "flow" level remove the test strip from the incubation vial and place it upright (arrows pointing down) into a slot of the Tube Holder and allow to develop for **10 minutes** and then read off the result immediately.

# **Results**



One single blue line in the central part of the test = negative result

One red line and one blue line in the result zone = positive result. The sample contains Gluten higher than the cutoff level and further investigations should be performed (e.g. quantification of Gluten using AgraQuant® Gluten G12 ELISA Test Kits).

**No control line appears** = invalid result, regardless of whether the test line appears. In the case of an invalid result, please repeat the procedure with a new strip. If the problem persists, please contact Romer Labs® before continuing further.