

AgraStrip® Gluten G12 Lateral Flow Test Kit

Recent discussions about celiac disease have led from the concept of "gluten detection" to "detection of potential relative toxicity of gluten" for the safety of celiac food consumers. For this reason the **AgraStrip® Gluten G12** using the G12 antibody was developed to specifically measure the fraction present in gluten which is toxic for celiac disease patients. The **AgraStrip® Gluten G12** is a rapid lateral flow assay test kit for screening food samples for gluten.

The G12 antibody is a new generation antibody that targets a toxic fragment that triggers the auto-immune reaction in celiac patients. The G12 antibody used in AgraStrip® Gluten G12, was raised against the QPQLPY peptide from toxic fragment called 33-mer with peptide structure of LQLQPFQQLPYQPQLPYQPQLPYQPQPF of the gliadin protein present in gluten.

SUMMARY:

- **G12 antibody was raised against QPQLPY peptide (from 33mer) that triggers the immune response in celiac patients.**
- **G12 recognizes the toxic fraction of gliadin**
- **G12 and potential immunotoxicity of oat varieties**

There is an ongoing debate concerning the presence or absence of gluten in oats. Several publications conclude that certain oat varieties may cause auto-immune response for celiac patients. During validation of AgraStrip® Gluten G12, positive and negative responses to oat varieties were obtained. However, the positive results appear to be specific reaction of the antibody with the toxic fragment, rather than a non-specific positive signal. Therefore, the G12 antibody may shed light on this debate. In this regard, the Spanish Celiac Associa-



tion has recently awarded the 6th National Prize for Research on Celiac Disease to a scientific team that used the G12 antibody to identify oat varieties containing low levels of gluten.

The **AgraStrip® Gluten G12** (Order No. COKAL0200AS) is a lateral flow test kit containing material to perform 10 tests.

BENEFITS:

- Specific – monoclonal antibody detecting peptide sequences from gluten
- Customized – 3 cutoff levels: 5, 10 and 20 ppm
- Rapid – takes minutes to perform
- Stable – 12 months shelf-life
- Cost Effective – no expensive equipment needed
- User Friendly – easily train technicians in minutes



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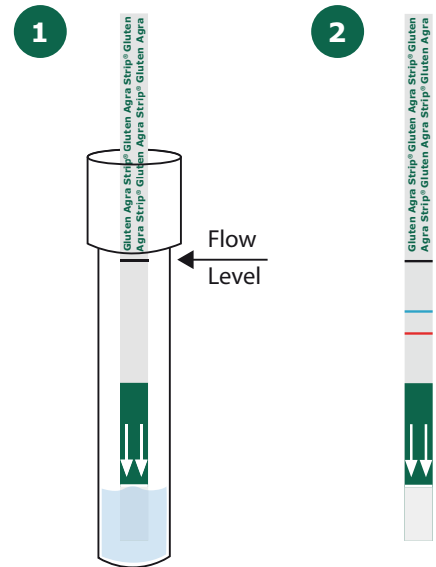
FOOD ALLERGENS

Procedure for AgraStrip® Gluten G12

IMPORTANT: Please read kit insert before running the test.
For sample extraction please refer to package insert.

Assay procedure:

- 1 Place the strip in extraction tube and allow liquid to wick to level shown in the diagram.
- 2 Remove the strip from the extraction tube and place up right into slot of the tube holder provided. Allow the strip to develop for 10 minutes and then read off the result immediately.



Result Interpretation

Negative result:

One single blue line in the central part of the strip.

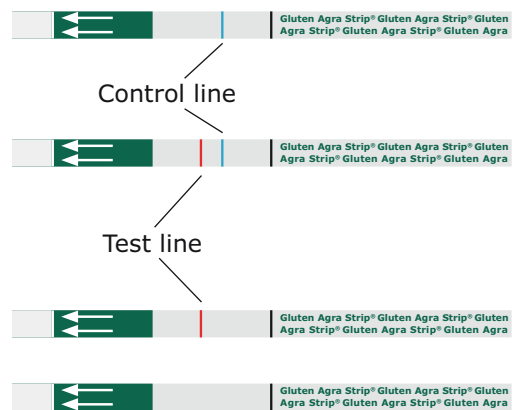
Positive result:

One blue line and one red line in the result zone. The sample contains gluten higher than the cutoff level (variable according to sample dilution)

NOTE: The intensity of the red colored test line may vary depending on the concentration present in the sample.

Invalid result:

No blue line appears.



T: 02 8212 4074 F: 02 9423 6992
 info@keydiagnostics.com.au
 www.keydiagnostics.com.au
 PO Box 1038, Gympie, NSW, 2227

References:

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