



Common Questions Answered; Allergens

What is Gluten?

Gluten is one of the most frequently requested tests we perform, but it's not quite as straightforward as it might seem, because ALS actually performs 2 different types of Gluten testing, Standard and Competitive Gluten tests. Both of them use test kits produced by an internationally renowned supplier, but they're each designed for slightly different samples.

The standard Gluten test works well for general use, this could be, raw ingredients, finished products, or something in between. However, when it comes to fermented products, that's where competitive Gluten testing shines.

When something containing Gluten gets fermented the Gluten gets broken down (hydrolysed) into smaller fragments, which

make it difficult to properly detect with the standard Gluten test, but crucially they can still cause a reaction in Gluten sensitive individuals. The competitive Gluten test has been designed specifically to be better able to accurately detect these smaller fragments.

If you've got a fermented product and you're concerned that it was contaminated with something containing Gluten before the fermentation step, e.g. something in one of your raw ingredients, then Competitive Gluten is the test for you.

If you've got a fermented product and you're concerned that it was contaminated with something containing Gluten after the fermentation step, e.g. something happening during the bottling/packing process, then the Standard Gluten test is what you want.



FoodMail / United Kingdom

Issue 1 / February 2024

If you're not sure, then ask. We're always happy to help answer any of your questions and queries that you may have before starting the testing process'.

Quantitative or Qualitative?

For lots of tests we perform there are 2 types of results, either Quantitative or Qualitative, but what's the difference, and why might you want one of them over the other?

Quantitative results are results that give you an actual value, e.g. 9.5ppm Gluten, 0.4mg/kg Casein, etc. This is great if you know there's a specific limit to the amount of allergen present or you have a reference dose, you're checking your levels are lower than, but what if you only need to know whether the allergen is present or not?

Qualitative results are results in which the target is either there or it isn't, e.g. Cashew - Detected, Celery - Not Detected, etc. If you just want to know whether some shrimps have made it into your chicken pâté then Qualitative is for you.

Did some peanut mix get in my cashew & walnut mix? - Qualitative

How much peanut mix got in my cashew & walnut mix? - Quantitative

Which do I need to test for; BLG or Casein?

With more and more products being produced to a vegan, or even dairy-free

standard, when it comes to testing it might get you wondering: Which do I need to test for BLG or Casein? And what's the difference?

Both BLG (beta-lactoglobulin) and Casein are proteins found in whole milk, but once you start to separate the milk into the different parts you might use in food manufacturing you start to see one over the other.

If you're handling whey powders, then your most prevalent protein will be BLG.

If on the other hand, you have curds in the factory then you're most likely going to want to check for Casein.

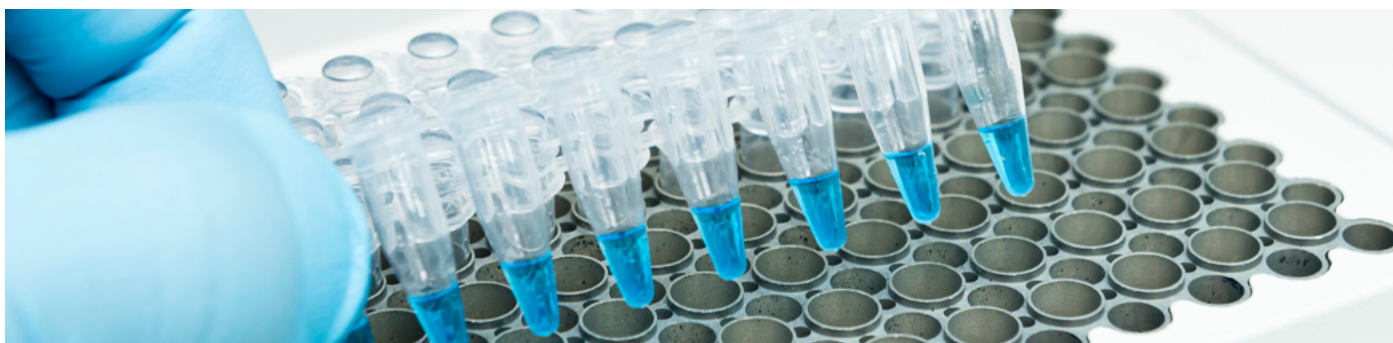
That isn't to say there isn't any BLG in the curds and vice versa, but if you want to check your cleaning process after using whey protein then BLG is by far the better choice.

If you're not sure, then ask. We're always happy to answer a question that helps find the right testing, before a sample needs to be retested for the correct thing.

If you're not sure, then ask. We're always happy to help answer any of your questions and queries that you may have before starting the testing process'.

ELISA or PCR?

When you look at allergens testing one of the first questions that you'll run in to is what sort of testing do you want? ELISA or





FoodMail / United Kingdom

Issue 1 / February 2024

PCR?

ELISA (Enzyme-Linked Immunosorbent Assay) is a protein-based testing method which uses antibodies to detect the presence (and usually amount) of a target protein. This method is useful as the results are usually quantifiable, and specific to a target protein (e.g. milk testing for BLG or Casein).

PCR (Polymerise Chain Reaction) is a testing method which amplifies and looks for specific sequences of DNA to find out whether a target species is present. This is often used for Allergens which are animal-based such as mollusc or crustacea, or to check for meat adulteration. PCR testing will usually give a qualitative result and is very specific to the target species.

So, what type of testing do I want?

If you've got specific targets for showing your allergen is below a certain level (e.g. Gluten present at <20ppm, or clients requiring <0.5ppm Casein, etc) then ELISA is the testing for you.

If you want check for the presence/absence of something (e.g. Is there any Crustacea in my potted mackerel, did the line get cleaned properly between the pork and the chicken sausages, etc) then PCR is the testing for you.

Not all tests have a PCR and ELISA version, so if you think you need one but aren't sure if it's something we offer, please get in touch and we'll run through your options.

Get in touch with us

Our technical experts and customer services teams are here to discuss your Allergen testing needs

E: Sales.uk@alsglobal.com

T: +44 (0) 1354 697 028

