



INTERPRETING NEXTLAB FOOD TEST RESULTS

The only way to diagnose a food allergy is by conducting a diet trial; this in itself should be seen as a diagnostic test. The results from the NEXTLAB food test can help you select which ingredients to use for this.

NEXTLAB FOOD TEST RESULTS			
PROTEINS	Candidate for Dietary Trial	IgE	IgG
Mammalian			
Beef		4	4
Cow's milk		2	3
Lamb	✓	0	0
Pork		3	1
Rabbit		4	1
Venison		1	1
Avian			
Chicken	✓	0	0
Duck	✓	0	0
Turkey	✓	0	0
Whole egg	✓	0	0

Abbreviated example results for demonstration purposes only.

In your Nextlab food test results, allergen specific IgE and IgG concentrations are reported as a graded class score between 0 (no reaction) and 5 (very strong reaction).

IgE reactivity is classically associated with Type 1 hypersensitivity reactions; however, food-specific IgG levels can be useful in cases of suspected adverse food reaction that are not IgE-mediated.

How your NEXTLAB food test results can be used to help you take the next step towards the diagnosis of a food allergy:

STEP 1: SELECT ZERO SCORING FOODS – If a food has a class score of 0 for both IgE & IgG, you will see a green tick against it on your results; the high negative predictive value of the test means this food may be suitable as an ingredient for a diet trial. Please note, even if all foods score 0/0 this still does not rule out a food allergy. A class score of ≥ 1 shows that antibodies, above a pre-determined level, have been detected to that food and it should be avoided for the purposes of a diet trial.

In situations where the results yield no foods with a class score of 0 to both IgE & IgG, allergens with low reactivity (score 1) may also be considered, if ingestion of that food has been recently proven to be tolerated. If all foods tested have scores higher than this, either a hydrolysed diet or home-prepared diet using uncommon novel ingredients is advised (see below).

STEP 2: CONSIDER CROSS-REACTIVITY – Cross-reactivity has been shown to exist between certain proteins. If an animal has a class score of ≥ 1 to a protein source (or that food is a known dietary component), it is therefore advisable to avoid all other similar types of protein in a diet trial (where possible). For the example in the results above, although lamb has an IgE & IgG class score of 0, the other mammalian proteins (beef, cow's milk etc.) do not; in contrast, all of the avian protein sources (chicken, turkey, duck, egg) score 0/0, so may be a better choice for a dietary trial. Food allergens are listed within their related groups to aid in the selection process.

STEP 3: INCORPORATE DIETARY HISTORY – The full dietary history must be considered whether opting for a home-prepared diet (using a single protein and a single carbohydrate source) or a commercial diet. Ingredients to which the animal has not been previously exposed should be selected; where many different foods have been given, more uncommon alternatives might be required; some examples are listed in the table below. Please note that this is not an exhaustive list and as long as the ingredient is novel to the animal in question, and fits with the results of the food test (factoring in cross-reactivity if possible), then it can be a candidate for a food trial.



ANIMAL PROTEINS

Goat, goose, insect, kangaroo, ostrich, pheasant, quail.

FISH PROTEINS

Blue whiting, capelin, catfish.

OTHER PROTEINS

Beans, lentils, tofu, vegan Quorn.

CARBOHYDRATES

Pasta, pumpkin, quinoa, squash, sweet potato, tapioca.

BE AWARE – Even after factoring in all of the above, both home-prepared and commercial diets (including hydrolysed) may still trigger a reaction in a small number of cases. A second dietary trial using a completely different food is always worth considering, if there is no response to the first. It is especially important to ensure the diet is fully balanced if extending beyond 8 weeks (or if the animal has other health conditions).



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There are also a number of other factors to consider, which could have an effect on the serology results:

1. WAS THE ANIMAL FULLY SYMPTOMATIC AT THE TIME OF SAMPLING?

Unless clinical signs are controlled **ONLY** using medications that are not thought to affect testing (see point 2), sampling should be undertaken when the animal is fully symptomatic so the immune response is likely to be at its highest.

We offer free sample storage in case you would like to sample at the optimum time but test at a later date.

For more information visit nextmunelaboratories.co.uk/vets/submit-a-sample-uk/



2. WAS THE ANIMAL ON ANY MEDICATION THAT MIGHT AFFECT TESTING?

Certain medications have been shown to affect the immune response, and therefore may impact test results. Please see our **Withdrawal Guide** for guidance at nextmunelaboratories.co.uk/vets/submit-a-sample-uk/

3. DOES THE ANIMAL SUFFER FROM ANY KIND OF IMMUNODEFICIENCY?

A generalised immunodeficiency can influence results.

4. WAS THE ANIMAL ON ITS USUAL DIET PRIOR TO SAMPLING?

The patient needs to have been eating their normal / unrestricted diet for at least 2 months before blood sampling, otherwise antibody levels may fall too low to be measured.

5. WAS THE ANIMAL OVER 6 MONTHS OF AGE?

Animals should ideally be over 6 months of age before testing, to ensure there is no interference from maternal antibodies, the immune system has fully matured, and the animal has been exposed to a variety of foods. If you would like to test an animal under 6 months old, please contact our Customer Support team on **01494 629979**, or at vetorders.uk@nextmune.com for advice.

6. COULD THE HYPERSENSITIVITY BE TO AN UNUSUAL ALLERGEN?

Our species-specific test panels are developed to identify hypersensitivity to the most common allergens implicated in food allergies. This is based upon guidelines within current literature, advice from dermatologists and selection of common ingredients used. It is, however, possible that the animal is hypersensitive to an unusual allergen not included in the panel.

7. IS THE ANIMAL SUFFERING FROM A FOOD INTOLERANCE?

A food intolerance can result in symptoms similar to those of food allergy, but it does not involve the immune system. A food trial will still be useful to identify the causal foods in this situation.

Diet trials are a big undertaking and, like any diagnostic test, must be run properly in order to generate meaningful results. To enable your clients to make a success of their pet's diet trial, please see our **Diet Trial Instructions**, available in the Nextmune UK Laboratories Practice Portal at nextmunelaboratories.co.uk/login

