

# The INgezim PLEX Allergies Panels



# WHO ARE WE?

Gold Standard Diagnostics is a global network of companies with decades of experience on the test kit, reagent and instrument development and manufacturing market. We provide fast, reliable, and easy to use diagnostic test kits and instruments in the fields of bioanalytical testing for the food, feed, environmental, biopharma, animal health and clinical industries.



## We are engaged in:

- Innovative development
- Quality manufacturing
- The outstanding commercialization of diagnostic solutions.



Our aim is to be at the forefront of what the laboratories need, and we are committed to delivering best-in-class assays and services to our vast network worldwide.



# IMPROVING ANIMAL HEALTH

In the same way that humans have become more prone to develop health issues due to environmental factors, our pets are experiencing the same impact of various health problems coming from modern lifestyle.

The bond between humans and their furry companions extends beyond companionship; increasingly, we're discovering that we share more than just love and affection with our pets. Recent studies have shed light on the remarkable similarity in the health challenges faced by both dogs and their owners, from concurrent allergies to co-occurring obesity and long-term stress. In fact, dogs and humans not only share living spaces but also a surprising number of non-communicable diseases, including diabetes and certain cancers.

However, among this shared health landscape, a concerning trend has emerged: the rise in allergies among our beloved canine companions. This surge in allergic disorders among dogs reflects a parallel trend observed in humans, prompting significant concern among veterinarians and pet owners alike. As we delve deeper into understanding the factors contributing to this escalating prevalence, it becomes evident that urban environments, modernized diets, and reduced exposure to diverse microbial communities play pivotal roles.

**Indeed, allergies are no longer just a human affliction; they are increasingly becoming a growing problem for our four-legged friends.**

# THE MICROARRAY

In allergy diagnostics, microarray technology revolutionizes how we assess allergic sensitivities. This **method** employs a **microarray** equipped with either **29 allergen** extracts and **1 component** for the environmental panel or 20 food allergens for the food microarray, which detect allergen antibodies in a **small blood sample** of just a few micro liters. By analyzing the patient's immune response to multiple allergens simultaneously, microarrays provide comprehensive insights into sensitivities. This approach is **faster, non-invasive**, and offers high throughput compared to traditional methods, promising improved patient care and outcomes in allergy medicine.

## Advantages



### Increased sensitivity due to the miniaturization

- Double testing
- More accurate results
- Able to titer lower concentrations
- Allows for low sample volumes



### Double testing

- More reliable results
- Reduces probability of false positive or negative results



### Cost and time

- Time efficient
- Allows automation
- Up 2976 allergen tests in just 5 hours
- Comprehensive result



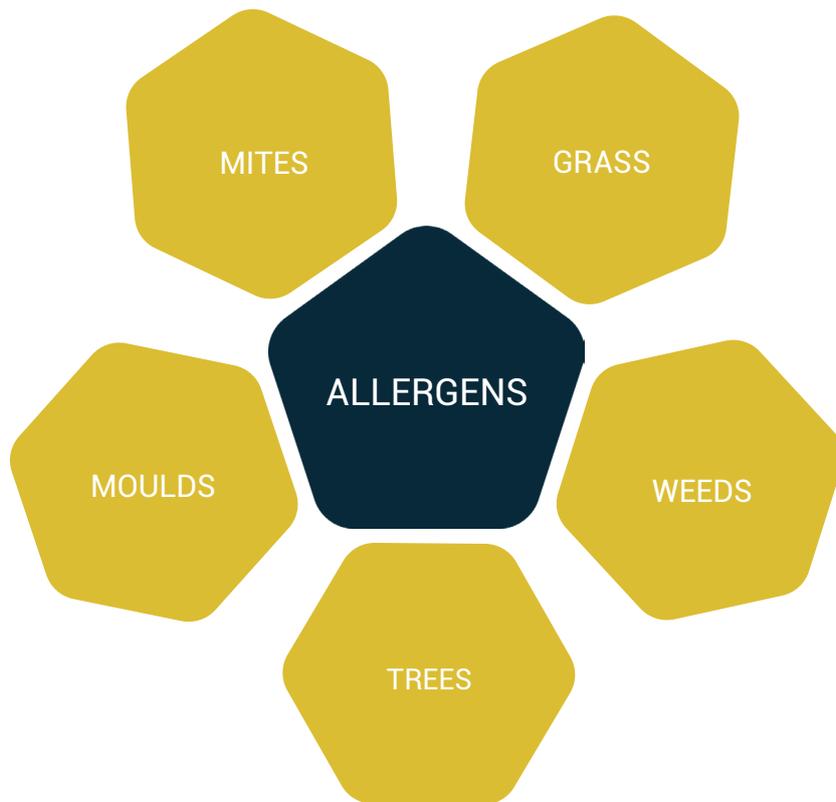
### Tailor-made

- Our test allows for a full customization of our allergen panels making them tailor-made for our client

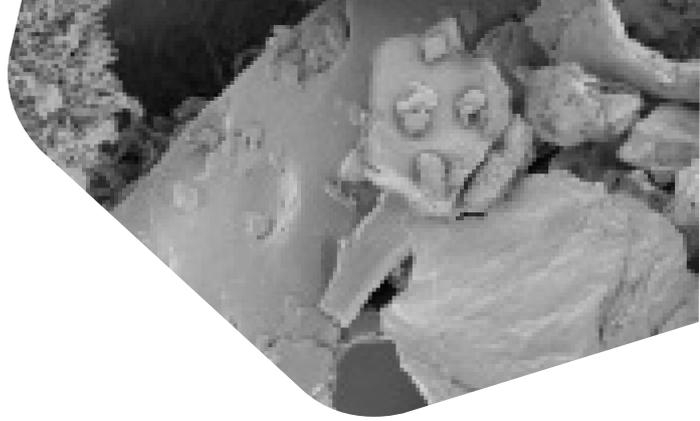


# OUR ALLERGEN TESTS

Our test range features a comprehensive panel of over 29 carefully selected allergens and 1 component, **chosen** for their **prevalent** occurrence in **dogs**. These allergens represent the primary reasons behind numerous cases of **atopic dermatitis** in canines. Below, you will find detailed descriptions of each allergen, meticulously categorized for ease of understanding and reference.



# MITES



## *D. farinae*

🌡️ 24-27°C 💧 >70%

Present worldwide all year, particularly in temperate, humid areas with peaks in summer.

## *L. destructor*

🌡️ 24-29°C 💧 60-70%

Present Worldwide all year, particularly in temperate, humid areas with peaks in summer.

## *D. pteronyssinus*

🌡️ 20-25°C 💧 50-60%

Common in temperate climates worldwide all year with peaks in warmer months.

## *T. putrescentiae*

🌡️ 25-30°C 💧 65-75%

Found in stored food products worldwide

## *A. siro*

🌡️ 24-29°C 💧 >60%

Widespread in temperate regions and stored food all year around.

## *B. tropicalis*

🌡️ 25-30°C 💧 70-80%

Predominantly tropical and subtropical regions



# GRASS

**Grass allergy** in dogs stems from **proteins in grass pollen**, triggering an immune response. Common lesions include intense itching (pruritus), redness (erythema), bumps (papules), pus-filled spots (pustules), and hair loss (alopecia). Persistent scratching can lead to secondary skin infections. Veterinary care for diagnosis and management is crucial.

## Perennial ryegrass



## Red fescue



## Cock's-foot



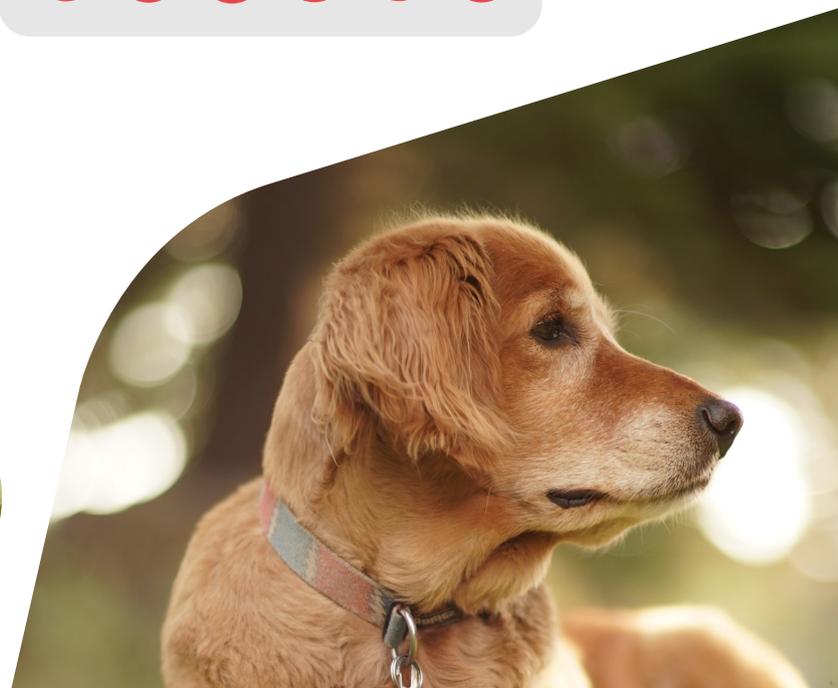
## Timothy-grass



## Kentucky bluegrass



## Bermuda grass



# WEEDS

**Weed** allergens are **common triggers** for allergic reactions in dogs, prevalent in environments like **parks, gardens, and urban** areas where dogs often roam.

Symptoms may include itching, redness, and respiratory issues. Identifying these allergens is crucial for owners to manage their pets' symptoms effectively. With **targeted allergy testing**, owners can **pinpoint** specific weed **allergens** affecting their dogs and **implement tailored treatment** plans for relief.

SALTWORT	ENGLISH PLANTAIN	RAGWEED	MUGWEED
<p>Allergy season</p> <p>JAN FEB MAR APR MAY JUN JUL AUG SEPT OCT NOV DEC</p> <p>Areas around the world Coastal areas, salt marshes, saline soils</p> 	<p>Allergy season</p> <p>JAN FEB MAR APR MAY JUN JUL AUG SEPT OCT NOV DEC</p> <p>Areas around the world Temperate regions, disturbed soil, lawns</p> 	<p>Allergy season</p> <p>JAN FEB MAR APR MAY JUN JUL AUG SEPT OCT NOV DEC</p> <p>Areas around the world North America, temperate regions globally</p> 	<p>Allergy season</p> <p>JAN FEB MAR APR MAY JUN JUL AUG SEPT OCT NOV DEC</p> <p>Areas around the world North America, temperate regions globally</p> 
NETTLE	GOOSEFOOTS	STICKY WEED	SHEEP'S SORREL
<p>Allergy season</p> <p>JAN FEB MAR APR MAY JUN JUL AUG SEPT OCT NOV DEC</p> <p>Areas around the world Worldwide, common in temperate regions</p> 	<p>Allergy season</p> <p>JAN FEB MAR APR MAY JUN JUL AUG SEPT OCT NOV DEC</p> <p>Areas around the world Diverse habitats, common weeds</p> 	<p>Allergy season</p> <p>JAN FEB MAR APR MAY JUN JUL AUG SEPT OCT NOV DEC</p> <p>Areas around the world Temperate regions, disturbed soil, roadsides</p> 	<p>Allergy season</p> <p>JAN FEB MAR APR MAY JUN JUL AUG SEPT OCT NOV DEC</p> <p>Areas around the world Widespread, often in acidic soils</p> 

# TREES

The selected tree allergens, including Birch, Ash, Olive, London Plane, and Black Poplar, have been chosen for their prevalence in various regions and their **significant** contribution to **seasonal allergies** in dogs. These tree species release pollen during specific months, aligning with peak allergy seasons for dogs. **Understanding and identifying** these **tree allergens** is crucial for dog owners to effectively **manage their pets' allergy** symptoms and ensure their well-being.



## Birch

**Areas around the world**  
Temperate regions, common in Northern Hemisphere

### Allergy season



## London Plane

**Areas around the world**  
Temperate regions, common in Northern Hemisphere

### Allergy season



## Olive tree

**Areas around the world**  
Temperate regions, common in Northern Hemisphere

### Allergy season



## Black Poplar

**Areas around the world**  
Temperate regions, common in Northern Hemisphere

### Allergy season



## Ash

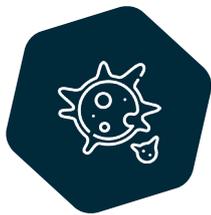
**Areas around the world**  
Temperate regions, common in Northern Hemisphere

### Allergy season



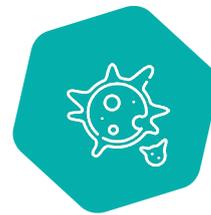
# MOULDS

These selected mold allergens, including *Alternaria alternata*, *Penicillium notatum*, *Cladosporium herbarum*, and *Aspergillus fumigatus*, have been meticulously chosen for their **prevalence** in both **indoor and outdoor environments** and their significant impact on allergic reactions in dogs. Recognizing the presence of these molds is essential for effective allergy management in dogs, as they are commonly **found in damp or poorly ventilated areas** of homes, which dogs frequent.



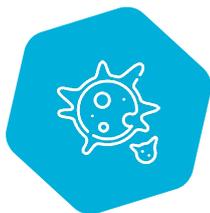
***A. alternata*** 🌡️ 21-32°C 💧 >55%

Common outdoor allergen, prevalent in warmer climates



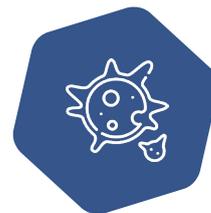
***P. notatum*** 🌡️ 18-24°C 💧 >60%

Common indoor mold, often found in water-damaged buildings



***C. herbarum*** 🌡️ 18-24°C 💧 >55%

Ubiquitous mold, frequently found in outdoor and indoor environments

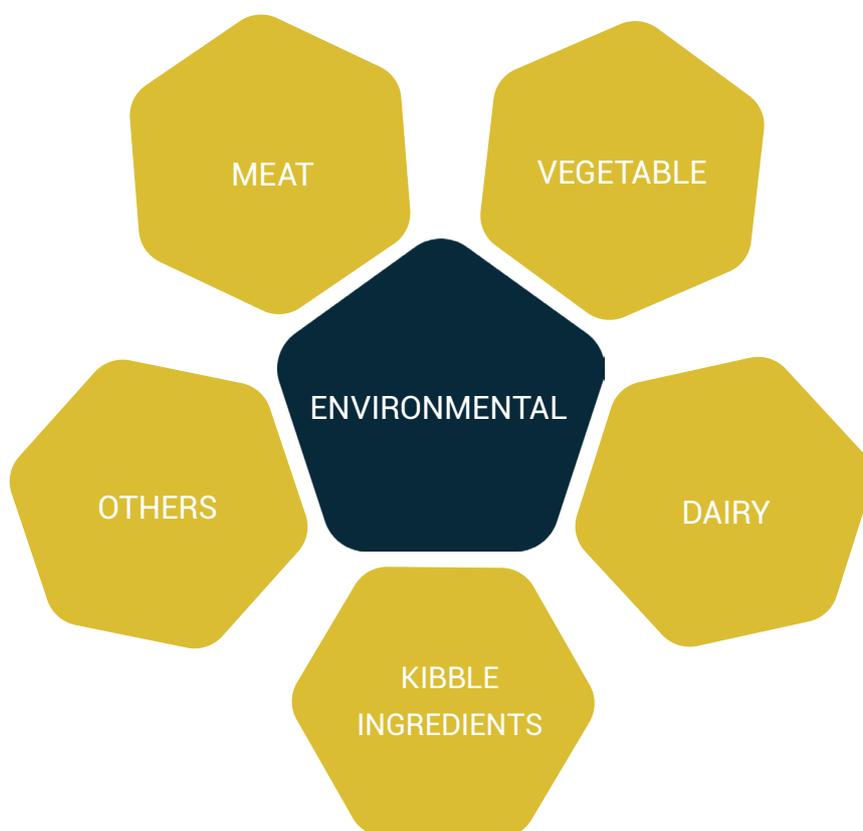


***A. fumigatus*** 🌡️ 21-32°C 💧 >50%

Opportunistic pathogen, can cause respiratory infections in humans

# OUR ALIMENTARY ALLERGY TESTS

Our canine **food** allergy test **microarray** showcases a meticulously selected panel of **20 prevalent food allergens**, chosen based on their significant occurrence in canine allergies. These allergens encompass a range of common triggers known to induce allergic reactions in dogs, particularly in cases of atopic dermatitis. Below, you will find **detailed descriptions of each allergen**, thoughtfully categorized for ease of understanding and reference, offering valuable insights into potential allergic threats impacting our furry companions' well-being.



# HOW FOOD ALLERGENS AFFECT DOGS?

Food allergies are a common threat for dogs, presenting a spectrum of symptoms ranging from skin issues like itching and redness to gastrointestinal disturbances such as vomiting and diarrhea. Identifying these allergies requires a methodical approach, often beginning with the transition to a hypoallergenic or novel protein diet. This dietary change aims to eliminate potential allergens and may take several weeks to months to yield noticeable improvements in symptoms.

During this transition period, strict adherence to the new diet is essential, requiring the avoidance of all potential sources of allergens, including treats and table scraps. Despite these efforts, pinpointing the exact allergen can prove challenging in some cases. In such instances, specialized allergy testing techniques may be employed to identify the reason.

While managing food allergies in dogs can be complex, it's crucial for improving their quality of life. With patience and veterinary guidance, pet owners can navigate this process effectively, ensuring their furry companions receive the necessary care and support to alleviate symptoms and promote overall well-being.



# MEAT ALLERGENS



**Beef**



**Pork**



**Lamb**



**Rabbit**



**Turkey**



**Duck**



**Deer**



**Chicken**



# VEGETABLE ALLERGENS



**Soybean**



**Wheat**



**Oat**



**Barley**



**Corn**



**Carrot**



**Rice**



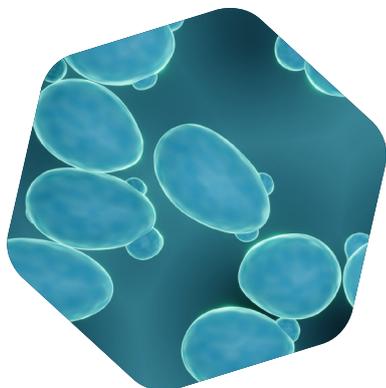
**Potato**



**Beet**



# OTHERS



**Yeast**



**Milk**



**Egg**





**Diagnosis and treatment must always be done by a veterinarian.**

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