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# LIVECLEAR™

✔ Reduces the allergens in cat hair and dander by an average of 47%

✔ Feline friendly. Simple and safe.

✔ Provides 100% complete and balanced nutrition for Adult Cats



## CAT ALLERGEN SENSITIVITIES ARE A BIG PROBLEM

- Globally 1 in 5 adults are sensitized to cat allergens<sup>1,2</sup>
- Fel d 1 is the primary allergen causing responses in up to 95% of cat allergen-sensitive individuals<sup>3,4</sup>
- Fel d 1 is a protein primarily produced in the salivary and sebaceous glands of cats<sup>3,5</sup>
- All cats produce Fel d 1 - irrespective of breed, age, sex, hair length or color<sup>3,4,5-9</sup>
- Fel d 1 is transferred to cat hair and skin during grooming & eventually into the environment via hair and dander<sup>3,5</sup>
- Even hairless breeds like Cornish Rex & Sphinx produce Fel d 1
- Contrary to popular perception, there are **no truly hypoallergenic cats**<sup>3,4,5,7,8,10,11</sup>

## CURRENT METHODS FOR MANAGING CAT ALLERGENS HAVE LIMITATIONS

Human allergists' recommendations focus on limiting or avoiding exposure to cats, desensitising individuals through medical treatment, or treating an allergen response once triggered.<sup>4</sup> Many owners go to great lengths to reduce cat allergens in their environment - daily house cleaning, frequent laundering of clothes and household fabrics and even bathing the cat.<sup>12</sup> Each method has limitations impacting their effectiveness<sup>13,14</sup> and can be time-consuming and stressful for both the cat and owner.

## CATS ALSO SUFFER CONSEQUENCES WHEN PEOPLE ARE SENSITIVE TO CAT ALLERGENS

- Limiting people's interactions with cats
- Cited as a common reason why cats are relinquished to shelters<sup>15-18</sup>
- Allergen sensitivities are a barrier to cat adoption and ownership<sup>16,19</sup>

## AN OPPORTUNITY EXISTS TO FIND AN ADDITIONAL TOOL THAT CAN HELP CAT ALLERGEN-SENSITIVE INDIVIDUALS BY REDUCING THE 'TOTAL ALLERGEN LOAD'

## THE REVOLUTIONARY SCIENCE BEHIND LIVECLEAR

**A proactive and scientifically proven approach that can safely neutralize Fel d 1 - the primary cat allergen at its source in cat saliva**

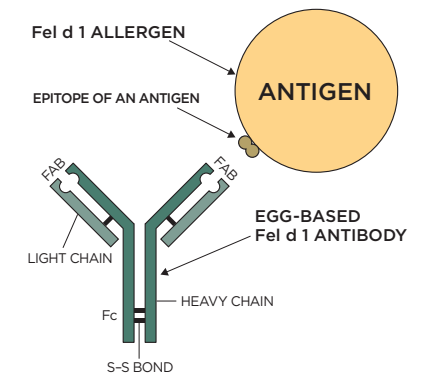
Currently the scientific community does not know the exact biological function of Fel d 1. Thus it is critical that any allergen management approach should not interfere with the normal production of Fel d 1 by the cat or impact the cat's overall physiology.

After a decade of research, Purina scientists have demonstrated that reducing the levels of *active* Fel d 1 in a cat's saliva and hair can reduce the amount of Fel d 1 shed into the environment on hair and dander, thereby reducing the total allergen load.



## GROUNDBREAKING STUDY DEMONSTRATES Fel d 1 BLOCKING ANTIBODIES CAN EFFECTIVELY NEUTRALIZE THE Fel d 1 IN SALIVA

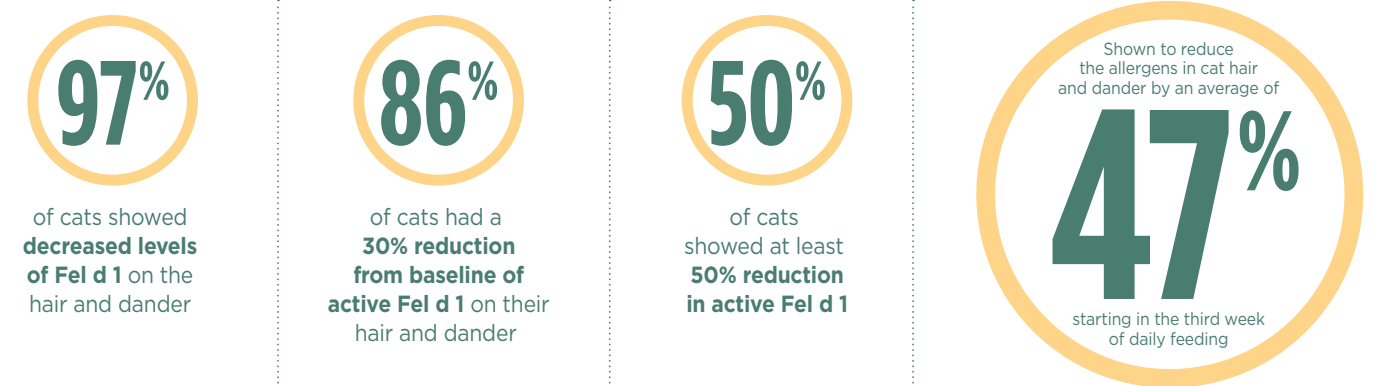
- In an *in vitro* study, Purina scientists demonstrated the efficacy of using an anti-Fel d 1 antibody (IgY, an egg yolk derived immunoglobulin) to block the Fel d 1 binding sites required to bind with human IgE - and trigger mast cell degranulation - the trigger for an allergen response.<sup>20</sup>
- In cat feeding studies, cats fed a diet with an egg product ingredient containing anti-Fel d 1 IgY had significantly reduced active Fel d 1 in saliva.<sup>21</sup>
  - Active Fel d 1 was significantly reduced within 3 weeks
  - Average decrease of 30% active Fel d 1 levels in saliva over 6 weeks of feeding the diet



## CLINICAL STUDY DEMONSTRATES SIGNIFICANT REDUCTION IN ACTIVE Fel d 1 ON HAIR AND DANDER

In a landmark study published in *Immunity, Inflammation & Disease*,<sup>22</sup> Purina scientists demonstrated that cats fed a diet with an egg product ingredient containing anti-Fel d 1 IgY showed decreased levels of active Fel d 1 on the hair and dander.

**In a study of 105 cats, significant results were shown beginning in the third week of feeding:**



## A SAFE AND SCIENTIFICALLY PROVEN FELINE-FRIENDLY APPROACH TO REDUCING CAT ALLERGENS

Although many allergen-sensitive owners will compromise their own health to keep their cat, they are unlikely to accept approaches that they feel may put their cat's health and well-being at risk.

Egg-based IgY ingredients have been used safely in human and veterinary medicine for decades.<sup>24-27</sup>

The Fel d 1 is neutralized in the saliva in the mouth as the cat eats the kibble, and the neutralized Fel d 1 is then distributed on the hair during grooming in place of active Fel d 1. But as the food passes through the digestive tract, the anti-Fel d 1 antibodies in the egg product ingredient are digested, just like all other proteins in food.

A comprehensive 6-month safety study using multiple concentrations of anti-Fel d 1 IgY, including many times those used in both LiveClear and the efficacy studies, showed the ingredient was well tolerated and there were no clinically relevant differences across a number of parameters, including clinical observations, blood and urinalyses.<sup>28</sup>

LiveClear is great-tasting, outstanding daily nutrition that reduces the allergens in cat hair and dander, safely and effectively, starting in the third week of daily feeding.

With this groundbreaking feline-friendly approach to cat allergen management, you can help enhance the quality of life for your patients, and the families that love them.