

# Setting the standard

## Pet Allergen Components\*

Use this guide to interpret ImmunoCAP™ Allergen Component test results and unlock a broader understanding of a patient's allergic sensitization, allowing for a more comprehensive management plan.<sup>1</sup>

Testing with pet allergen components can aid in:<sup>1-8,15</sup>



### Pet selection

Uncover pet specific sensitizations and/or cross-reactivity



### Predicting disease

Identify risk for development or increased severity of respiratory disease



### Optimizing management

Determine personalized exposure reduction and appropriate referrals

## Component characteristics and cross-reactivity<sup>9</sup>

Whole allergen	Allergen components					
Cat	Fel d 2	Fel d 4	Fel d 7	Fel d 1		
Dog	Can f 3	Can f 6	Can f 1	Can f 2	Can f 4	Can f 5
Horse		Equ c 1				
Key	—— Primary sensitizer		····· Not a primary sensitizer		■ Cross-reactive	

## Protein family characteristics<sup>9,15</sup>

### Serum albumins

Highly cross-reactive considered minor allergens  
Abundant in saliva and dander

### Lipocalins

Most are major allergens  
Synthesized in salivary glands and expressed in saliva and dander

### Uteroglobin/Secretoglobin

Major cat allergen  
A cat-specific marker of sensitization  
Expressed in skin and salivary glands

### Prostatic Kallikrein





A major dog allergen  
Synthesized in the prostate of male dogs  
Expressed in urine and detected in urine, hair and dander

## Management considerations

- **Elevated Fel d 1:**  
Institute targeted exposure reduction to cat and consider anti-Fel d 1 products and allergen immunotherapy (AIT) with a specialist.<sup>2,10</sup>
- **Elevated Can f 1 and/or Can f 2 and/or Can f 4:**  
Institute targeted exposure reduction to dog and consider AIT with a specialist.<sup>2,9,11,12</sup>
- **Elevated Can f 5 monosensitization:**  
May tolerate female dogs.<sup>2,9</sup> Consider AIT with specialist.<sup>2,10</sup>
- **Can f 3/Fel d 2 sensitization indicates cross-reactivity** and is seldom of clinical importance. However, Fel d 2 can be a primary sensitizer in pork-cat syndrome.<sup>14</sup>
- **Elevated Equ c 1:** Institute targeted exposure reduction to horse and consider AIT with a specialist.<sup>13</sup>

## Disease severity

**The risk for and severity of respiratory diseases increase with the number of pet allergen components the patient is sensitized to.**

- 3** Sensitization to  $\geq 3$  pet allergen components is more common in severe asthma.<sup>2-4</sup>
-  The higher the specific IgE levels of Fel d 1/Fel d 4/Can f 1/Can f 2/Can f 5, the higher the risk for asthma.<sup>6,7</sup>
-  Co-sensitization to Fel d 1 and Fel d 4 is associated with asthma symptoms.<sup>6</sup>
-  Co-sensitization to Can f 1, Can f 2, and Can f 5 is associated with asthma symptoms.<sup>6</sup>
-  Polysensitization to pet components at age 4 predicts risk for rhinitis, conjunctivitis and asthma at age 16.<sup>8</sup>

*Note: As in all diagnostic testing, any diagnosis or treatment plan must be made by the clinician based on test results, individual patient history, the clinician's knowledge of the patient, as well as their clinical judgment. Patients can be sensitized to more than one allergen component.*

**Whole allergens consist of numerous allergen components.** A positive whole allergen sensitization with negative allergen component sensitization may mean a patient is sensitized to a component that is not yet available for testing. Consider a patient's clinical history, cross-reactivity between species, and referral to a specialist.<sup>9</sup>

\*Official product names mentioned within this document: ImmunoCAP Allergen e94, Allergen component rFel d 1 Cat; ImmunoCAP Allergen e220, Allergen component rFel d 2 Cat serum albumin; ImmunoCAP Allergen e228, Allergen component rFel d 4, Cat; ImmunoCAP Allergen e231, Allergen component rFel d 7 Cat; ImmunoCAP Allergen e101, Allergen component rCan f 1 Dog; ImmunoCAP Allergen e102, Allergen component rCan f 2 Dog; ImmunoCAP Allergen e221, Allergen component rCan f 3 Dog serum albumin; ImmunoCAP Allergen e229, Allergen component rCan f 4 Dog; ImmunoCAP Allergen e226, Allergen component rCan f 5 Dog; ImmunoCAP Allergen e230, Allergen component rCan f 6 Dog; ImmunoCAP Allergen e227, Allergen component rEqu c 1, Horse

## References

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