

# It takes two: Respiratory and food allergen profiles

Labcorp's respiratory and food allergen profiles use ImmunoCAP™ specific Immunoglobulin E (IgE) allergy testing, the “gold standard” for allergy blood testing.<sup>1</sup> Specific IgE test results can help support an allergy diagnosis, determine sensitization and/or help rule out allergy altogether.

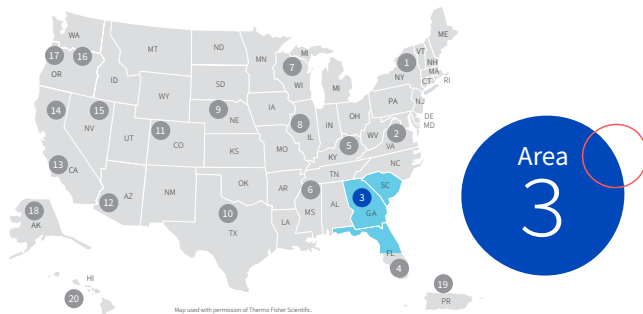
Ruling out allergic sensitization may reduce worry and unnecessary medication. These tests can help with trigger avoidance, tailored education, management considerations and appropriate referrals.<sup>2</sup>



## Area 3: Regional respiratory profile with pet allergen component reflex

### Accurate diagnosis: Foundational for treatment efficacy and disease control

Respiratory allergies are frequently diagnosed on history and physical examination alone. This approach may only be accurate about 50% of the time.<sup>3</sup> Given the prevalence of coexistent asthma with allergic rhinitis, diagnosing on history and exam alone may lead to suboptimal outcomes, including unmanaged symptoms, repeat office visits, unnecessary use of antihistamines and unneeded referrals.<sup>4</sup>



### Pet allergen component reflex testing: For enhanced management

- Labcorp's area-specific respiratory profiles with pet allergen component reflex include the most common categories of pollens (e.g., grass, trees and weeds) per region and indoor allergens including mold, dust mites, insect emanations and pet components.<sup>5</sup>
- Automatic reflex testing to cat and dog pet allergen components occurs when the whole allergen test indicates sensitization to an allergen.
- Risk and severity of respiratory diseases increase with the number of pet allergen components to which a person is sensitized. The pet allergen reflex provides a clearer picture of a person's allergic sensitization pattern at the component level and can help enhance management strategies.<sup>6,7,8</sup>

### Area 3: Regional Respiratory Profile with Pet Allergen Component Reflex Overview

Test Name	Test No.	Method	Specimen Requirements
Allergen Profile with Total IgE and with Component Reflexes, Respiratory — Area 3 (GA, North FL, SC)	<b>607100</b>	Thermo Fisher ImmunoCAP™ Specific IgE	3.5 mL serum (room temperature)
<b>Tree</b> Birch, Common Silver Cedar, Mountain Elm, American Maple/Box Elder Oak, White Pecan, Hickory	<b>Weed</b> Nettle Pigweed, Common Ragweed, Short Sheep Sorrel	<b>Grass</b> Bahia Grass Bermuda Grass Timothy Grass	<b>Mold</b> <i>Alternaria alternata</i> <i>Aspergillus fumigatus</i> <i>Cladosporium herbarum</i> <i>Penicillium chrysogenum</i>
<b>Animal/Dust</b> Cat Dander Cockroach, German <i>D farinae</i> <i>D pteronyssinus</i> Dog Dander Mouse Urine			
*If cat IgE ≥ 0.35 kU/L, reflex tests Fel d 1 IgE, Fel d 2 IgE, Fel d 4 IgE will be added. If dog IgE ≥ 0.35 kU/L, reflex tests Can f 1 IgE, Can f 2 IgE, Can f 3 IgE, Can f 5 IgE will be added. If reflex testing is performed, additional charges/CPT codes may apply.			

# Labcorp food allergen profile

## Common food allergens

Adverse reactions to foods may be broadly grouped into two categories: immune mediated (e.g., food allergy, celiac) and nonimmune mediated (e.g., lactose intolerance).<sup>9,10</sup> Symptom overlap among conditions within these two broad groups may challenge an empiric diagnosis.<sup>9,10</sup>

When approaching suspected food allergy, it is important to note:<sup>11</sup>

- Self-reported food allergy is more common than confirmed allergy
- Food allergy is more common in children
- Food allergy is more common in people with other atopic diseases
- A small number of allergens cause a high percentage of food allergy

To aid in a differential diagnosis, expert guidelines recommend a detailed medical history and physical exam to help identify suspected foods to guide diagnosis, followed by testing focused on those suspected foods.<sup>10,11</sup>

## Labcorp food allergen profile with component reflex testing

Our food allergen profiles include the top nine food groups that cause the majority of reactions:<sup>12</sup>

- Milk
- Eggs
- Fish
- Crustacean shellfish
- Tree nuts
- Peanuts
- Wheat
- Soybean
- Sesame

Automatic reflex:

- When the whole allergen test is positive, it will automatically reflex test milk, egg, peanut, tree nuts, sesame and/or wheat components. This helps to identify a person's risk for a systemic reaction versus a milder or more localized response and allow for a comprehensive management plan.<sup>13</sup>



## Allergen Profile, Food IgE II with Component Reflex Overview

Test Name	Test No.	Method	Specimen Requirements
Allergen Profile, Food IgE with Component Reflexes*	<b>608005</b>	Thermo Fisher ImmunoCAP™ Specific IgE	4.0 mL serum (room temperature)
Milk	Crustacean Shellfish: Scallop, Shrimp	Wheat: Wheat, ω 5-Gliadin (tri-19)	
Egg White	Tree Nuts: Almond, Brazil Nut, Cashew Nut, Hazelnut (Filbert), Walnut	Soybean	
Fish: Codfish, Salmon, Tuna	Peanut (whole)	Sesame: Sesame Seed	
*If milk IgE ≥ 0.35 kU/L, reflex tests α-lactalbumin IgE, β-lactoglobulin IgE, and casein IgE will be added. If egg white IgE ≥ 0.35 kU/L, reflex tests ovalbumin and ovomucoid IgE will be added. If IgE to sesame, walnut, hazelnut (filbert), cashew nut, brazil nut, and/or peanut (whole) is ≥ 0.10 kU/L, reflex tests will be added as follows: Sesame: Ses I 1 IgE / Brazil nut: Ber e 1 IgE / Cashew nut: Ana o 3 IgE / Hazelnut (filbert): Cor a 1, Cor a 8, Cor a 9, and Cor a 14 IgE / peanut (whole): Ara h 1, Ara h 2, Ara h 3, Ara h 6, Ara h 8, and Ara h 9 IgE / Walnut: Jug r 1 and Jug r 3. If Wheat > 0.10 kU/L, one or more of the following components may be tested: Gliadin, Tri a 14 (wheat nsLTP), Phl p 12 (Timothy grass profilin) and/or Cross-reactive Carbohydrate Determinant (CCD). If reflex testing is performed, additional charges/CPT codes may apply.			

## References

1. Park K, Lee J, Sim D, Lee S. Comparison of Singleplex Specific IgE Detection Immunoassays: ImmunoCAP Phadia 250 and Immulite 2000 3gAllergy. *Annals of Laboratory Medicine*. 2018;38(1):23.
2. Kwong K, Eghrari-Sabet J, Mendoza G, Platts-Mills T, Horn R. The benefits of specific immunoglobulin E testing in the primary care setting. *AJMC*. 2011;17(17):445-459.
3. Yawn B, et al. The Allergy and Asthma Task Force Recommendations. *Journal of Clinical Outcomes Management*; The Journal of Family Practice; Pediatric News, 2019.
4. Szeinbach SL, Williams B, Muntendam P, et al. Identification of allergic disease among users of antihistamines. *J Manag Care Pharm*. 2004;10(3):234-238.
5. Wallace DV, Dykewicz M, Bernstein D, et al. The diagnosis and management of rhinitis: an updated practice parameter. *J Allergy Clin Immunol*. 2008;122:S1-84.
6. Nordlund B, Konradsen JR, Kull I, et al. IgE antibodies to animal-derived lipocalin, kallikrein and secretoglobulin are markers of bronchial inflammation in severe childhood asthma. *Allergy*. 2012;66:1-669.
7. Davila I, Dominguez-Ortega J, Navarro-Pulido A, et al. Consensus document on dog and cat allergy. *Allergy*. 2018; 1-17.
8. Patelis A, Gunnbjornsdottir M, Alving K, et al. Allergen extract vs. component sensitization and airway inflammation, responsiveness and new-onset respiratory disease. *Clinical and Experimental Allergy*. 2015;46: 730-740.
9. Sicherer SA. Food allergy. *Lancet*. 2002;360:701-710.
10. Boyce JA, Assa'ad A, Burks WA, et al. Guidelines for the diagnosis and management of food allergy in the United States: report of the NIAID sponsored expert panel. *J Allergy Clin Immunol*. 2010;126(6):S1-S53.
11. Sampson HA, Aceves S, Bock SA, et al. Food allergy: a practice parameter update – 2014. *J Allergy Clin Immunol*. 2014;1-10e.
12. USDA. Food Allergy. [FDA.gov](https://www.fda.gov/food/food-labeling-nutrition/food-allergies). Accessed January 23, 2024. <https://www.fda.gov/food/food-labeling-nutrition/food-allergies>.
13. Bradshaw N. A Clinical Reference Guide to Molecular Allergy. *Go Molecular! Molecular Allergy – The Basics*. Thermo Fisher Scientific; 2014.

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