

ImmunoCAP[®] Specific IgE Testing

Objective Evidence Aids Diagnosis and Treatment Decisions



CLINICAL APPLICATION

ImmunoCAP[®] is a reliable assay for measuring allergen specific IgE, providing clinically relevant information to help healthcare providers differentiate allergy-like symptoms from true allergies. It also has an important role in the identification of allergy triggers in patients diagnosed with asthma. Accurate and sensitive specific IgE test results helps differentiate patients who can be managed in primary care from those requiring referral to specialists.

- **Primary Care** – ImmunoCAP can be a powerful tool for the primary care physician in evaluating patients who present with rhinitis, sinusitis or other allergic symptoms. When added to the traditional methods of history and physical exam, ImmunoCAP can add objective data on specific sensitivities for either drug therapy or allergen avoidance. ImmunoCAP also offers solid evidence to rule out allergy.
- **Asthma** – Asthma overlaps many medical specialties. Primary care physicians, allergy specialists and managed care organizations all have an interest in controlling the morbidity associated with the disease and controlling the costs of treatment. Asthma treatment guidelines from the NIH state that clinicians should “identify allergen exposures.” The use of ImmunoCAP, a well-standardized and reproducible blood assay, allows clinicians to meet this standard of care with relative ease.

CLINICAL BACKGROUND

Diseases with an allergic component represent a major public health problem in the United States, affecting as many as 40 to 50 million Americans.

- Allergic rhinitis affects between 10% and 30% of all adults and as many as 40% of children.
- 6.7% of adults and 8.5% of children have asthma; 60% and 90%, respectively, of those have allergy triggers.
- Food allergies affect approximately 6% of young children and 3 to 4% of adults in the U.S.

History and physical examination, when used alone without confirmatory testing, yield a correct diagnosis of allergic diseases only 50% of the time. Because allergy-like symptoms have a host of allergic and non-allergic etiologies, objective evidence has become increasingly important in primary care. With specific IgE blood test results, clinicians can make an assured differential diagnosis for patients with allergy-like symptoms. A reliable assay for measuring specific IgE supports the clinical diagnosis of allergy and helps guide the management of allergic diseases. Positive identification of allergens is essential before instituting environmental controls and helpful in selecting medication. Equally important, negative results avoid unnecessary, ineffective and costly treatment.

The American public is more aware of health issues and individuals are taking a more active role in their own health care. This activist mindset, coupled with heavy advertising for allergy-related drugs such as Claritin,[™] Allegra,[™] and Zyrtec,[™] has led patient/consumers to demand that their physicians prescribe allergy medication. A recent study, however, showed that only about 30% of patients who presented with upper respiratory symptoms and believed they were allergic, were actually suffering from allergies. “Test before you treat” was the theme of several articles in the national press on this subject. Specific allergen testing not only makes for good medical practice by prescribing anti-allergy drugs only for those patients who are allergic, but it could also help to reduce the cost of medical care.

Quick Facts

- Food allergen component testing helps assess risk for systemic allergic reactions.
- Up to 70% of patients being treated with allergy related drugs are not allergic.
- NIH recommends identifying allergen exposures for asthmatic patients. ImmunoCAP’s quantitative specific IgE testing identifies those allergy triggers.
- ImmunoCAP markedly improves clinical sensitivity and specificity of allergen specific IgE testing.
- We offer Respiratory Disease profiles specific to each region of the U.S., as well as a broad menu of additional panels and individual allergens.
- It is recommended that a total IgE be ordered when requesting a battery of allergens or respiratory disease profiles.

SELECTED REFERENCES

1. Airborne allergens: Something in the air. National Institute of Allergy and Infectious Diseases. NIH Publication No. 03-7045. 2003.
2. The Diagnosis and Management of Rhinitis: An Updated Practice Parameter. Joint Task Force on Practice Parameters. J Allergy Clin Immunol. 2008; 122: S1-S84.
3. Nathan RA. The burden of allergic rhinitis Allergy Asthma Proc 2007;28:3-9.
4. Homburger HA. Diagnosing allergic diseases in children. Arch Pathol Lab Med. 2004;128:1028-1031.

FOOD ALLERGEN PANELS

Alpha-Lactalbumin IgE
Beta-Lactoglobulin IgE
Casein IgE

MILKR

MILK IGE RFLX TO COMPONENTS

If sensitization occurs for cow's milk in MILKCP, then component testing for the allergen(s) will be performed.

PNTCOM

PEANUT WHOLE WITH COMPONENTS

VOLUME 3 mL
MINIMUM 2 mL
Peanut IgE
Peanut Component Panel

Ara h1
Ara h2
Ara h3
Ara h9
Ara h8

PNTCMR

PEANUT RFLX TO COMPONENTS

If sensitization occurs for peanut in PNTCOM, then component testing for the allergen(s) will be performed.

REGIONAL RESPIRATORY PROFILES

RDPNA

REGION 1

NORTH ATLANTIC STATES (CT, MA, NJ, NY, PA, VT, ME, NH, RI)

VOLUME 3 MI
MINIMUM 1.5 mL
D. pteronyssinus (mite) IgE
D. farinae (mite) IgE
Cat dander IgE
Dog dander IgE
Bermuda grass IgE
Timothy grass IgE
Cockroach IgE
Penicillium chrysogenum/notatum IgE
Cladosporium herbarum IgE
Aspergillus fumigatus IgE
Alternaria tenuis IgE
Box Elder tree IgE
Common Silver Birch IgE
Cottonwood tree IgE
Elm tree IgE
Maple leaf sycamore IgE
Mountain cedar (juniper) IgE
Mulberry tree IgE
Oak tree IgE
Walnut tree IgE
White ash tree IgE
Short (common) ragweed IgE
Mugwort IgE
Pigweed IgE
Sheep Sorrel (yellow dock) IgE

RDPMA

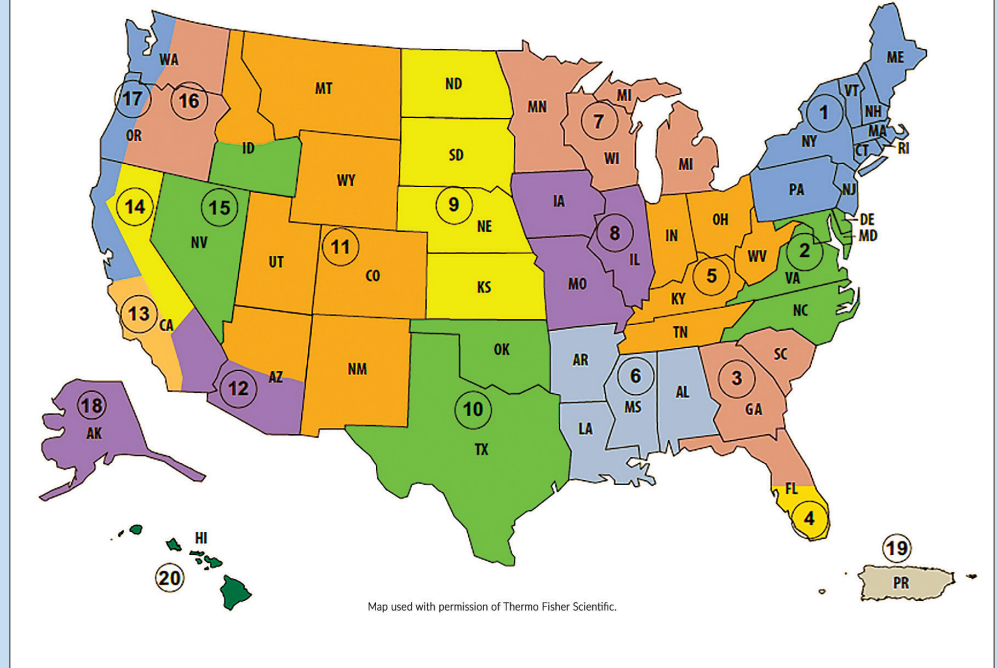
REGION 2

MID-ATLANTIC STATES (DE, MD, VA, DC, NC)

VOLUME 3 MI
MINIMUM 1.5 mL
D. pteronyssinus (mite) IgE
D. farinae (mite) IgE
Cat dander IgE
Dog dander IgE

REGIONAL RESPIRATORY PROFILES

REGIONAL ALLERGY RESPIRATORY AREAS



Bermuda grass IgE
Timothy grass IgE
Johnson grass IgE
Cockroach IgE
Penicillium chrysogenum/notatum IgE
Cladosporium herbarum IgE
Aspergillus fumigatus IgE
Alternaria tenuis IgE
Box Elder tree IgE
Common Silver Birch IgE
Cottonwood tree IgE
Elm tree IgE
Mountain cedar (juniper) IgE
Mulberry tree IgE
Oak tree IgE
Pecan (white hickory) tree IgE
Short (common) ragweed IgE
Pigweed IgE
Sheep Sorrel (yellow dock) IgE

RDPSA

REGION 3

SOUTH ATLANTIC STATES (GA, SC, Northern Florida)

VOLUME 3 MI
MINIMUM 1.5 mL
D. pteronyssinus (mite) IgE
D. farinae (mite) IgE
Cat dander IgE
Dog dander IgE
Bermudagrass IgE
Bahigrass IgE
Timothygrass IgE
Cockroach IgE
Penicilliumchrysogenum/notatum IgE
Cladosporiumherbarum IgE
Aspergillusfumigatus IgE
Alternariatenuis/alternata IgE
Boxelder(maple)tree IgE
Commonsilverbirchtree IgE
Elmtree IgE
Mountaincedar(juniper)tree IgE
Oaktree IgE

Pecan(whitehickory)tree IgE
Short(common)ragweed IgE
Pigweed IgE
Sheepsorrel IgE
Nettle IgE

RDPNFL

REGION 4

NEW FLORIDA (FL [S. of Orlando])

VOLUME 3 MI
MINIMUM 1.5 mL
D. pteronyssinus (mite), IgE
D. farinae (mite), IgE
Blomia tropicalis (mite), IgE
Cat dander, IgE
Dog dander, IgE
Bermuda grass, IgE
Bahia grass, IgE
Timothy grass, IgE
Cockroach, IgE
Penicillium chrysogenum/notatum, IgE
Cladosporium herbarum, IgE
Aspergillus fumigatus, IgE
Alternaria tenuis/alternata, IgE
Australian pine tree, IgE
Box elder (maple) tree, IgE
Elm tree, IgE
Mountain cedar (juniper) tree, IgE
Oak tree, IgE
Short (common) ragweed, IgE
Pigweed, IgE
Sheep sorrel, IgE
Nettle, IgE

RDPGOV

REGION 5,

GREATER OHIO VALLEY (OH, TN, WV, KY)

VOLUME 3 MI
MINIMUM 1.5 mL
D. pteronyssinus (mite) IgE
D. farinae (mite) IgE
Cat dander IgE

CONTINUED

REGIONAL RESPIRATORY PROFILES

Dog dander IgE
Bermuda grass IgE
Timothy grass IgE
Cockroach IgE
Penicillium chrysogenum/notatum IgE
Cladosporium herbarum IgE
Aspergillus fumigatus IgE
Alternaria tenuis IgE
Box Elder tree IgE
Common Silver Birch IgE
Cottonwood tree IgE
Elm tree IgE
Maple leaf sycamore IgE
Mountain cedar (juniper) IgE
Mulberry tree IgE
Oak tree IgE
Pecan (white hickory) tree IgE
Walnut tree IgE
White ash tree IgE
Short (common) ragweed IgE
Russian thistle, IgE
Pigweed IgE
Sheep sorrel (yellow dock) IgE

RDPSC REGION 6 SOUTH CENTRAL STATES (AL, AR, LA, MS)

VOLUME 3 MI
MINIMUM 1.5 mL

D. pteronyssinus (mite) IgE
D. farinae (mite) IgE
Cat dander IgE
Dog dander IgE
Bermuda grass IgE
Timothy grass IgE
Cockroach IgE
Penicillium chrysogenum/notatum IgE
Cladosporium herbarum IgE
Aspergillus fumigatus IgE
Alternaria tenuis IgE
Box Elder tree IgE
Common Silver Birch IgE
Elm tree IgE
Mountain cedar (juniper) IgE
Mulberry tree IgE
Oak tree IgE
Pecan (white hickory) tree IgE
Walnut tree IgE
Short (common) ragweed IgE
Pigweed IgE
Rough marsh elder IgE

RDPNMW REGION 7 NORTHERN MIDWEST STATES (MI, WI, MN)

VOLUME 3 MI
MINIMUM 1.5 mL

D. pteronyssinus (mite) IgE
D. farinae (mite) IgE
Cat dander IgE
Dog dander IgE
Bermuda grass IgE
Timothy grass IgE
Cockroach IgE
Penicillium chrysogenum/notatum IgE
Cladosporium herbarum IgE
Aspergillus fumigatus IgE
Alternaria tenuis IgE
Box Elder tree IgE
Common Silver Birch IgE
Cottonwood tree IgE

REGIONAL RESPIRATORY PROFILES

Elm tree IgE
Mountain cedar (juniper) IgE
Mulberry tree IgE
Oak tree IgE
White ash tree IgE
Short (common) ragweed IgE
Russian thistle, IgE
Rough marsh elder IgE
Nettle IgE

RDPCMW REGION 8 CENTRAL MIDWEST STATES (IL, MO, IA)

VOLUME 3 MI
MINIMUM 1.5 mL

D. pteronyssinus (mite) IgE
D. farinae (mite) IgE
Cat dander IgE
Dog dander IgE
Bermuda grass IgE
Timothy grass IgE
Cockroach IgE
Penicillium chrysogenum/notatum IgE
Cladosporium herbarum IgE
Aspergillus fumigatus IgE
Alternaria tenuis IgE
Box Elder tree IgE
Cottonwood tree IgE
Elm tree IgE
Maple leaf sycamore IgE
Mountain cedar (juniper) IgE
Mulberry tree IgE
Oak tree IgE
Pecan (white hickory) tree IgE
Walnut tree IgE
Short (common) ragweed IgE
Russian thistle, IgE
Pigweed IgE
Rough marsh elder IgE
White ash tree IgE

RDPGP REGION 9 GREAT PLAINS STATES (KS, NE, ND, SD)

VOLUME 3 MI
MINIMUM 1.5 mL

D. pteronyssinus (mite) IgE
D. farinae (mite) IgE
Cat dander IgE
Dog dander IgE
Bermuda grass IgE
Timothy grass IgE
Cockroach IgE
Penicillium chrysogenum/notatum IgE
Cladosporium herbarum IgE
Aspergillus fumigatus IgE
Alternaria tenuis IgE
Box Elder tree IgE
Cottonwood tree IgE
Elm tree IgE
Mountain cedar (juniper) IgE
Mulberry tree IgE
Oak tree IgE
White ash tree IgE
Short (common) ragweed IgE
Russian thistle, IgE
Sheep Sorrel (yellow dock) IgE
Nettle IgE

REGIONAL RESPIRATORY PROFILES

RDPSWG REGION 10 SOUTHWESTERN GRASSLAND STATES (TX, OK)

VOLUME 3 MI

MINIMUM 1.5 mL

D. pteronyssinus (mite) IgE
D. farinae (mite) IgE
Cat dander IgE
Dog dander IgE
Bermuda grass IgE
Timothy grass IgE
Cockroach IgE
Penicillium chrysogenum/notatum IgE
Cladosporium herbarum IgE
Aspergillus fumigatus IgE
Alternaria tenuis IgE
Box Elder tree IgE
Common Silver Birch IgE
Cottonwood tree IgE
Elm tree IgE
Mountain cedar (juniper) IgE
Mulberry tree IgE
Oak tree IgE
Pecan (white hickory) tree IgE
White ash tree IgE
Short (common) ragweed IgE
Pigweed IgE
Rough marsh elder
Sheep sorrel (yellow dock) IgE
Nettle IgE

R DPRM REGION 11 ROCKY MOUNTAIN STATES (AZ [Mtn], ID [Mtn], NM, WY, CO, UT [Mtn], MT)

VOLUME 3 MI

MINIMUM 1.5 mL

D. pteronyssinus (mite) IgE
D. farinae (mite) IgE
Cat dander IgE
Dog dander IgE
Bermuda grass IgE
Timothy grass IgE
Cockroach IgE
Penicillium chrysogenum/notatum IgE
Cladosporium herbarum IgE
Aspergillus fumigatus IgE
Alternaria tenuis IgE
Grey alder IgE
Box Elder tree IgE
Cottonwood tree IgE
Elm tree IgE
Mountain cedar (juniper) IgE
Mulberry tree IgE
Oak tree IgE
Olive tree IgE
Short (common) ragweed IgE
Mugwort IgE
Russian thistle IgE
Russian thistle IgE
Pigweed IgE
Sheep sorrel (yellow dock) IgE

RDPASW REGION 12 ARID SOUTHWEST (S. AZ, SE CA DESERT)

VOLUME 3 MI

MINIMUM 1.5 mL

D. pteronyssinus (mite) IgE

REGIONAL RESPIRATORY PROFILES

D. farinae (mite) IgE
Cat dander IgE
Dog dander IgE
Bermuda grass IgE
Johnson grass IgE
Perennial rye grass IgE
Cockroach IgE
Penicillium chrysogenum/notatum IgE
Cladosporium herbarum IgE
Aspergillus fumigatus IgE
Alternaria tenuis IgE
Acacia tree IgE
Cottonwood tree IgE
Elm tree IgE
Mountain cedar (juniper) IgE
Oak tree IgE
Olive tree IgE
Short (common) ragweed IgE
Mugwort IgE
Russian thistle IgE
Pigweed IgE

RDPSCC REGION 13 SOUTH COASTAL CALIFORNIA (CA)

VOLUME 3 MI
MINIMUM 1.5 mL

D. pteronyssinus (mite) IgE
D. farinae (mite) IgE
Cat dander IgE
Dog dander IgE
Bermuda grass IgE
Timothy grass IgE
Cockroach IgE
Penicillium chrysogenum/notatum IgE
Cladosporium herbarum IgE
Aspergillus fumigatus IgE
Alternaria tenuis IgE
Grey alder IgE
Common silver birch tree IgE
Elm tree IgE
Maple leaf sycamore tree IgE
Mountain cedar (juniper) IgE
Mulberry tree IgE
Oak tree IgE
Olive tree IgE
Short (common) ragweed IgE
Mugwort IgE
Russian thistle IgE
Pigweed IgE
Sheep sorrel (yellow dock) IgE

RDPCC ALLERGENS, REGION 14, CENTRAL CALIFORNIA (CA)

MINIMUM 1.5 mL

D. pteronyssinus (mite) IgE
D. farinae (mite) IgE
Cat dander IgE
Dog dander IgE
Bermuda grass IgE
Timothy grass IgE
Cockroach IgE
Penicillium chrysogenum/notatum IgE
Cladosporium herbarum IgE
Aspergillus fumigatus IgE
Alternaria tenuis IgE
Grey alder IgE
Common silver birch tree IgE
Elm tree IgE
Maple leaf sycamore tree IgE

REGIONAL RESPIRATORY PROFILES

Mountain cedar (juniper) IgE
Mulberry tree IgE
Oak tree IgE
Olive tree IgE
Short (common) ragweed IgE
Mugwort IgE
Russian thistle IgE
Pigweed IgE

RDPIMW REGION 15, INTERMOUNTAIN WEST (SOUTH ID, NV)

VOLUME 3 MI
MINIMUM 1.5 mL

D. pteronyssinus (mite) IgE
D. farinae (mite) IgE
Cat dander IgE
Dog dander IgE
Bermuda grass IgE
Timothy grass IgE
Cockroach IgE
Penicillium chrysogenum/notatum IgE
Cladosporium herbarum IgE
Aspergillus fumigatus IgE
Alternaria tenuis IgE
Box elder tree IgE
Cottonwood tree IgE
Elm tree IgE
Mountain cedar (juniper) IgE
Mulberry tree IgE
Oak tree IgE
Olive tree IgE
Short (common) ragweed IgE
Mugwort IgE
Russian thistle IgE
Pigweed IgE

RDPINW REGION 16, INLAND NORTHWEST (CENTRAL & EASTERN WA, OR)

VOLUME 3 MI
MINIMUM 1.5 mL

D. pteronyssinus (mite) IgE
D. farinae (mite) IgE
Cat dander IgE
Dog dander IgE
Timothy grass IgE
Cockroach IgE
Penicillium chrysogenum/notatum IgE
Cladosporium herbarum IgE
Aspergillus fumigatus IgE
Alternaria tenuis IgE
Grey alder tree IgE
Box elder tree IgE
Allergen Common silver birch tree IgE
Cottonwood tree IgE
Elm tree IgE
Mountain cedar (juniper) IgE
Oak tree IgE
Mugwort IgE
Russian thistle IgE
Pigweed IgE
Sheep Sorrel (yellow dock) IgE

REGIONAL RESPIRATORY PROFILES

RDPICPN REGION 17 PACIFIC NORTHWEST (NW CA, WESTERN WA, OR)

VOLUME 3 MI
MINIMUM 1.5 mL

D. pteronyssinus (mite) IgE
D. farinae (mite) IgE
Cat dander IgE
Dog dander IgE
Timothy grass IgE
Cockroach IgE
Penicillium chrysogenum/notatum IgE
Cladosporium herbarum IgE
Aspergillus fumigatus IgE
Alternaria tenuis IgE
Grey alder tree IgE
Box elder tree IgE
Allergen Common silver birch tree IgE
Cottonwood tree IgE
Elm tree IgE
Mountain cedar (juniper) IgE
Oak tree IgE
Walnut tree IgE
White ash tree IgE
Short (common) ragweed IgE
Pigweed IgE
Sheep Sorrel (yellow dock) IgE
Nettle IgE

RDPKAK REGION 18 ALASKA (AK)

VOLUME 3 MI
MINIMUM 1.5 mL

D. pteronyssinus (mite) IgE
D. farinae (mite) IgE
Cat dander IgE
Dog dander IgE
Timothy grass IgE
Cockroach IgE
Penicillium chrysogenum/notatum IgE
Cladosporium herbarum IgE
Aspergillus fumigatus IgE
Alternaria tenuis IgE
Grey alder tree IgE
Allergen Common silver birch tree IgE
Cottonwood tree IgE
Mugwort IgE
Sheep Sorrel (yellow dock) IgE



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FOR MORE INFORMATION, PLEASE CONTACT
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