WALNUT

Molecular Allergology

ImmunoCAP®
ALLERGEN COMPONENTS

Improved risk assessment

in walnut allergy

– use components for better management of nut allergic patients

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Take the diagnosis and management
of walnut allergic patients to a whole new level

Identify primary walnut sensitization

Diagnosing nut allergy and identifying the trigger allergen(s) may be difficult.[1,2] Molecular allergy diagnostics can help to identify primary walnut (*Juglans regia*) sensitization in nut allergic patients.

- Sensitization to the storage protein Jug r 1 (2S albumin) indicates a primary walnut allergy.[3,4]
- IgE antibodies to Jug r 3 (LTP) indicate cross-reactivity with other LTP-containing foods, often originating from a primary peach allergy.[5–7]

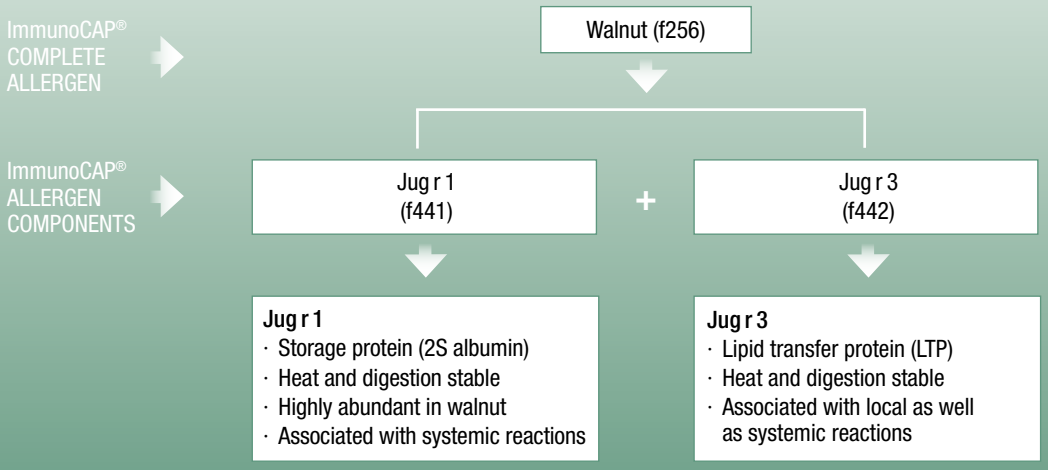
Improve the risk assessment using allergen components

- Sensitization to 2S albumin proteins such as Jug r 1 is known to be associated with systemic food reactions.[2,8–11]
- The presence of IgE antibodies to Jug r 3 indicates that local symptoms as well as systemic reactions can occur.[5–7]

Improve management of walnut allergic patients

- Walnut allergic patients sensitized to Jug r 1 and/or Jug r 3 should avoid raw as well as roasted/heated walnuts.[2,4]
- Walnut allergic patients with sensitization to Jug r 1 should also be investigated for allergy to other nuts or seeds, e.g. pecan nut, hazelnut and cashew nut, as co-existing allergies may occur.[1,12,13]
- Walnut allergic patients sensitized to Jug r 3 may react to other LTP-containing foods, such as peach, other nuts, apple or grapes.[5,6]

Suggested test profile

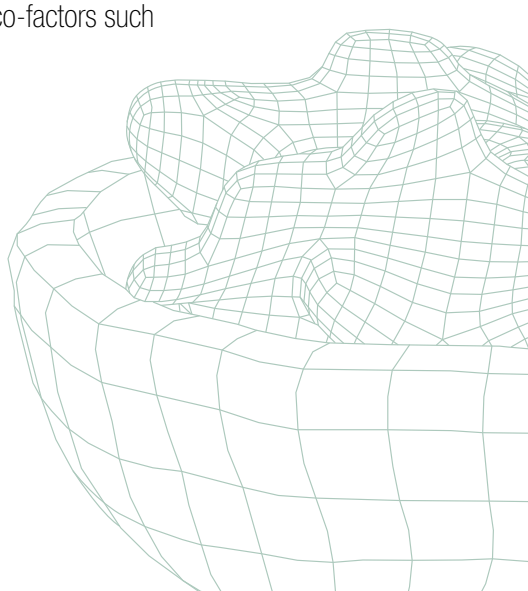


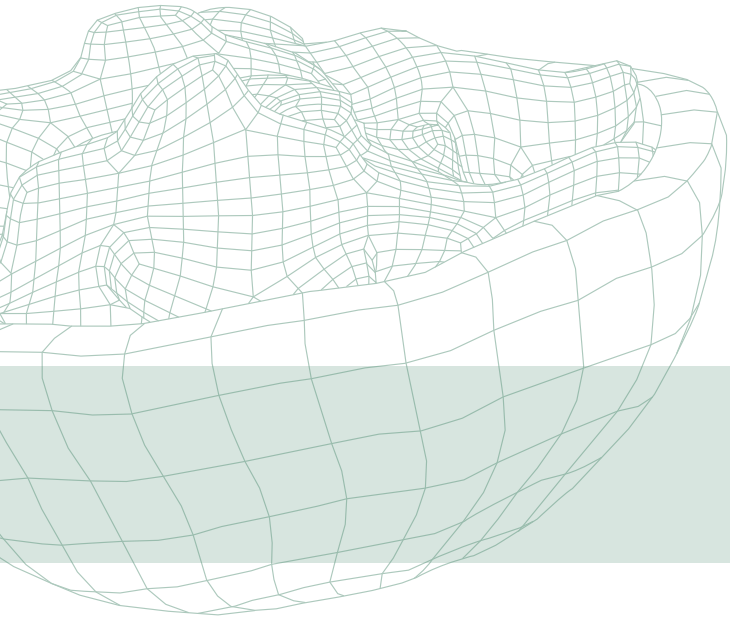
A positive f256 with negative Jug r 1 and Jug r 3 results may be explained by sensitization to:

- *Other walnut storage proteins*
- *Cross-reactivity with pollen proteins like profilin or PR-10 proteins. Due to high degree of similarity markers like Bet v 2 (profilin) and Bet v 1 (PR-10) may be used*
- *CCD (cross-reacting carbohydrate determinants)*

Did you know that?

- Walnut is one of the most common causes of allergic reactions to tree nuts.[4,5]
- The estimated prevalence of walnut allergy in the general population is up to 0.5 % and in food allergic children up to 4 %.[5,14]
- Walnut and pecan nut are botanically closely related and show extensive cross-reactivity.[2,13]
- Walnut allergy is potentially life-threatening, increasing in prevalence and rarely outgrown.[5,12,13]
- Walnut allergy can appear early in life, symptoms can be elicited upon first known exposure and the dose can be very low.[5,12,13]
- Walnut can induce food-dependent anaphylaxis elicited by exercise or other co-factors such as NSAID drugs or alcohol.[7,15,16]





Make a precise assessment

ImmunoCAP Allergen Components help you differentiate between primary allergies and cross-reactivity

Make a substantiated decision

A better differentiation helps you give relevant advice and define the optimal treatment

Make a difference

More informed management helps you improve the patient's well-being and quality of life

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