Allergy

Setting the standard

ImmunoCAP™ Specific IgE
Wheat 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.[1-15]

Up to 65%

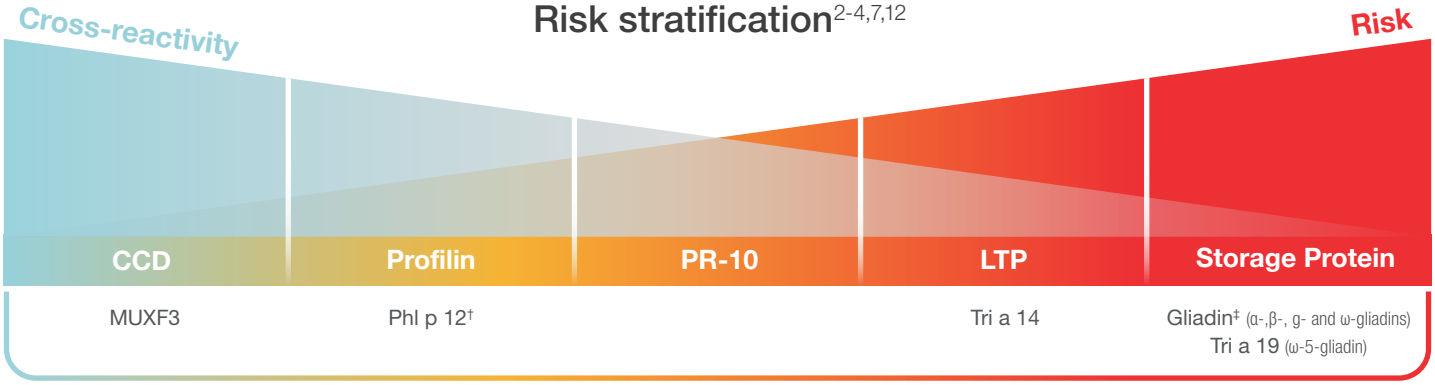
of grass-allergic patients will also be sensitized to wheat but might not have a true clinical wheat allergy.[2,3,14]

Because wheat is part of the grass family, grass-allergic patients will often be sensitized to wheat due to cross-reactivity.[2-4,14]

Testing with wheat allergen components can help to:[1-15]

- Assess risk for systemic allergic reactions
- Rule in or out cross-reactivity
- Optimize diagnosis and management

Risk stratification[2-4,7,12]



†Surrogate markers for profilin Phl p 12, Bet v 2, Pru p 4.
‡Gliadin is purified from a wheat extract and consists of 4 native, highly purified (99%) gliadins: α-, β-, g- and ω-gliadins (including ω-5 gliadin)

Characteristics of individual proteins[3,4,8,12]

CCD	Profilin	PR-10	LTP	Storage Protein
Does not usually provoke clinical reactions	Sensitization is usually asymptomatic	Labile to heat and digestion	Stable to heat and digestion	Stable to heat and digestion
Highly cross-reactive (pollen, plant food, venoms)	Abundant in nature	Mainly local reactions	Local and systemic reactions	Associated with systemic reactions
	Cross-reactive with pollen	Cross-reactive with birch pollen	Cross-reactive with plant foods and pollens	Indicates primary sensitization

Diagnostic considerations

Wheat f4	Tri a 14 f433	Gliadin f98	Tri a 19 f416	
+/-	+/-	+	-	**If clinical symptoms are present with exposure to wheat,** high probability of clinical wheat allergy and severe, systemic reactions.[12,15] Consider the following: • Immediate type wheat allergy[11-13] • Wheat-dependent exercise induced anaphylaxis (WDEIA)[15] • Bakers allergy (asthma) with Tri a 14-positive patients[2,4,12] • Patient likely to react to oral food challenge (OFC) • Prescribing epinephrine auto-injector • Informing family, colleagues, and teachers of the allergy and have a plan
+/-	+/-	+/-	+	**If clinical symptoms are present with exposure to wheat,** high probability of clinical wheat allergy and severe, systemic reactions.[13] Consider the following: • Immediate type wheat allergy[11-13] • Higher risk of WDEIA and/or other co-factors that may increase severity of reaction (e.g. exercise, alcohol, ect.)[11,12] • Bakers allergy (asthma) with Tri a 14-positive patients[2,4,11,12] • Less likely to outgrow/develop tolerance[5] • Patient likely to react to OFC • Prescribing epinephrine auto-injector • Informing family, colleagues, and teachers of the allergy and have a plan
+	+	-	-	**If clinical symptoms are present with exposure to wheat,** high probability of clinical wheat allergy. Consider the following: • Systemic and local symptoms such as oral allergy syndrome (OAS) are possible[4,13] • Patient may be sensitized to other LTPs contained in other plant foods/pollens due to cross-reactions which can cause systemic symptoms[7,8] • Consider bakers allergy (asthma)[2,12] • Immediate type wheat allergy and/or WDEIA[11-13] • Patient likely to react to OFC • Prescribing epinephrine auto-injector • Inform family, colleagues, and teachers of the allergy and have a plan
+	-	-	-	**If there are no symptoms with wheat exposure,** or if symptoms are localized to only the oral cavity, primary wheat allergy and severe reactions are less likely. Consider the following • Further investigation to identify primary allergen by investigating what other allergens patient is exposed to[2-4,6] • Testing for CCD, Profilin (Phl p 12), and regional grasses[2-4,7,12-14] • OFC with a specialist may be recommended

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.[1]

> ***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 and if an OFC with a specialist may be warranted.*

*Official product names of allergen components mentioned within this document: ImmunoCAP Allergen f4, Wheat; ImmunoCAP Allergen f98, Gliadin; ImmunoCAP Allergen f433, Allergen component rTri a 14 LTP, Wheat; ImmunoCAP Allergen f416, Allergen component rTri a 19 Omega-5 Gliadin, Wheat

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