



Milk Allergen component testing

Discover the connection

Whole Allergens and Allergen Components help you diagnose allergy, allowing you to prepare a more comprehensive management plan.

Thermo
SCIENTIFIC

Milk Allergen Component testing can help determine which proteins your patient is sensitized to.

A specific IgE blood test that detects sensitization to cow's milk is the first step in discovering your patient's allergy. Milk Allergen Component tests can help you determine the likelihood of reaction to baked goods, such as cookies or cheese pizza, as well as the likelihood of allergy persistence.



CHARACTERISTICS OF INDIVIDUAL PROTEINS

Cow's milk f 2	α -lactalbumin Bos d 4 / f 76	β -lactoglobulin Bos d 5 / f 77	Casein Bos d 8 / f 78
<ul style="list-style-type: none"> High levels of cow's milk IgE may predict the likelihood of sensitivity, but may not be solely predictive of reactions to baked milk or allergy duration¹ 	<ul style="list-style-type: none"> Susceptible to heat denaturation² HIGHER RISK of reaction to fresh milk^{1,3} LOWER RISK of reaction to baked milk^{1,3*} Patient likely to "outgrow" milk allergy⁴ 	<ul style="list-style-type: none"> Susceptible to heat denaturation² HIGHER RISK of reaction to fresh milk^{1,3} LOWER RISK of reaction to baked milk^{1,3*} Patient likely to "outgrow" milk allergy⁴ 	<ul style="list-style-type: none"> Resistant to heat denaturation³ HIGHER RISK of reaction to all forms of milk^{1,3,5} Patient unlikely to "outgrow" milk allergy with high levels of specific IgE to casein⁴

*In clinical studies, extensively baked muffin, waffle, and cheese pizza were heated to the point of protein denaturation.

75% of children with cow's milk allergy do not react to **baked milk**.³

Knowing which protein your patient is sensitized to can help you develop a management plan.^{3,5-9}

α -lactalbumin Bos d 4 / f 76	β -lactoglobulin Bos d 5 / f 77	Casein Bos d 8 / f 78	Management Considerations
+	+	-	<ul style="list-style-type: none"> Avoid fresh milk Likely to tolerate baked milk products Baked milk oral food challenge with a specialist may be appropriate Likely to outgrow allergy
+	-	-	<ul style="list-style-type: none"> Avoid all forms of cow's milk Unlikely to become tolerant of cow's milk over time Avoid cow's milk and baked milk products (yogurt, cookies, cakes), as well as products processed with milk (chocolate, sausage, potato chips)
-	+	-	
+/-	+/-	+	

As in all diagnostic testing, any diagnosis or treatment plan must be made by the physician based on test results, individual patient history, the physician's knowledge of the patient, and the physician's clinical judgement.

Discover the connection

Optimize management to help:

- **ASSESS** risk for systemic allergic reactions
- **EVALUATE** potential reaction to baked milk products
- **ADDRESS** parental anxiety

With **Milk Allergen Component test** results, you have more of the information necessary for proper diagnosis, allowing you to evaluate your patient's potential risk of systemic reaction, and develop a more comprehensive management plan.

DISCOVER THE CONNECTION

References

1. Shek LP, Bardina L, Castro R, Sampson HA, Beyer K. Humoral and cellular responses to cow milk proteins in patients with milk-induced IgE-mediated and non-IgE-mediated disorders. *Allergy*. 2005;60(7):912-919. 2. Wal JM. Bovine milk allergenicity. *Ann Allergy Asthma Immunol*. 2004;93(5 Suppl 3):S2-S11. 3. Nowak-Wegrzyn A, Bloom KA, Sicherer SH, et al. Tolerance to extensively heated milk in children with cow's milk allergy. *J Allergy Clin Immunol*. 2008;122(2):342-347. 4. Sicherer SH, Sampson HA. Cow's milk protein-specific IgE concentrations in two age groups of milk-allergic children and in children achieving clinical tolerance. *Clin Exp Allergy*. 1999;29(4):507-512. 5. Boyano-Martínez T, García-Ara C, Pedrosa M, Díaz-Pena JM, Quirce S. Accidental allergic reactions in children allergic to cow's milk proteins. *J Allergy Clin Immunol*. 2009;123(4):883-888. 6. Caubet, J, et al. Utility of casein-specific IgE levels in predicting reactivity to baked milk. *J Allergy Clin Immunol*. 2013;131(1):222-224. 7. CM Allergy Review. Diagnosis of cow's milk allergy in children: determining the gold standard? *Expert Rev. Clin. Immunol*. 2014;10(2):257-267. 8. Kim, J, et al. Dietary baked milk accelerates the resolution of cow's milk allergy in children. *J Allergy Clin Immunol*. 2011;128(1):125-131. 9. Ito, K, et al. The usefulness of casein-specific IgE and IgG4 antibodies in cow's milk allergic children. *Clinical and Molecular Allergy*. 2012;10:1:1-7.

© 2015 Thermo Fisher Scientific Inc. All rights reserved.
All trademarks are the property of Thermo Fisher Scientific Inc., and its subsidiaries.

Thermo Fisher Scientific
4169 Commercial Avenue, Portage, MI 49002, 800.346.4364
www.thermoscientific.com 587795.03

Thermo
SCIENTIFIC