Alpha-Gal syndrome

ImmunoCAP™ Specific IgE tests

Thermo Fisher

ImmunoCAP™ Whole Allergens

Pork (f26) +/- **Beef** (f27) +/- **Lamb** (f88)

ImmunoCAP™ Allergen Component

Alpha-Gal (o215)

Good to know

Isolated gastrointestinal (GI) symptoms can be due to sensitisation to alpha-Gal.¹



In a typical alpha-Gal allergic patient:

- Diagnosis is supported by IgE to several mammalian meat.²⁻³
- IgE levels to alpha-Gal > IgE to mammalian meat.³⁻⁴

References: 1. Wilson JM, et al. Allergy. 2024 Jun;79(6):1440-1454. 2. Commins SP, et al. J Allergy Clin Immunol. 2014;134:108-15. 3. Kennedy JL, et al. Pediatrics. 2013;131:e1545-52. 4. Hamsten C, et al. J Allergy Clin Immunol. 2013;132:1431-4. 5. Plats-Mills T, et al. J Allergy Clin Immunol Pract. 2020; 8(1): 15-23. et al. 6. Jackson WL. Oxf Med Case Reports. 2018 Feb 21;2018(2):omx098. 7. Dramburg S, et al. Pediatr Allergy Immunol 2023;34(Suppl 28):e13854. 8. Commins SP, et al. J Allergy Clin Immunol. 2011;127:1286-93 e6. 9. Commins SP, et al. Curr Allergy Asthma Rep. 2013;13:72-7. 10. Morisset M, et al. Allergy. 2012;67:699-704. 11. Caponetto P, et al. J Allergy Clin Immunol Pract. 2013;1:302-3. 12. Fischer J, et al. J Allergy Clin Immunol. 2014;134:755-9 e1. Official product names: ImmunoCAP Allergen 126, Pork, ImmunoCAP Allergen 127, Beef, ImmunoCAP Allergen f88, Mutton, ImmunoCAP Allergen 0215, Component nGal-alpha-1,3-Gal (alpha-Gal) Thyroglobulin, bovine

Red meat	Alpha-Gal	Interpreting results ^{5-7*}	
+ /-	+	Interpreting results:* Consider alpha-Gal syndrome (AGS) Management considerations: Avoidance of all mammalian (red) meat Possible need to avoid milk, gelatin containing food and certain medications Consider prescribing epinephrine auto injector	
+	-	Interpreting results:* Consider a meat allergy due to sensitisation to one or more red meat allergens (beef, lamb, pork) Management considerations: • Avoidance of specific sensitised mammalian meat • Consider prescribing epinephrine auto injector • May need to consider testing cross reactive proteins (e.g. milk, pork-cat syndrome)	
-	-	Interpreting results:* Consider other clinical factors or findings Management considerations: Consider other clinical factors or findings Oral food challenge (OFC) with a specialist may be recommended. High likelihood that patient may pass OFC.	

^{*} Results should be interpreted in the context of the clinical history

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Multiple factors may explain the sudden reactions:

Alpha-Gal sensitisation

IgE levels are likely to drop over time and can increase following new tick bites⁸



Red meat consumption

The greater amount eaten and the fattier the cut, the higher the probability of a reaction⁹

Delayed reactions

- Hives, GI-distress and/or anaphylaxis¹⁻³
- Typically, 3-6 hour* delay but can also be rapid¹-2

Tick bite/s

Known/unknown tick bite history

Co-factors may potentiate the effect^{1,7,10-12}

- Physical exercise
- Alcohol
- Nonsteroidal anti-inflammatory drugs (NSAIDs)
- Infection

Risk of reaction in AGS:5

	Food	Medications/ biologic therapies
Higher risk	Beef, pork, lamb, innards	Cetuximab Gelatin plasma expanders Anti-venom (e.g. CroFab)
	Dairy	Bovine/porcine heart valves Gelatin-containing vaccines (e.g. Zostavax, MMR) Pancreatic enzyme replacement (e.g. pancrelipase)
Lower risk	Gelatin- containing foods	Heparin Gelcaps

Adapted from Platts-Mills T et al. Diagnosis and management fo patients with alpha-Gal syndrome. J Allergy Clin Immunol Pract .2020; 8(1): 15-23. e1.



Learn more at thermofisher.com/allergencomponents