

Dog allergy

ImmunoCAP™ Specific IgE tests

ThermoFisher
SCIENTIFIC

Allergic sensitisation to dogs is considered a risk factor for asthma and rhinitis and has increased significantly over recent decades for both children and adults. Dog allergen particles are tiny and easily become airborne, disperse effectively, and can enter small bronchioles to reach lower airways.¹

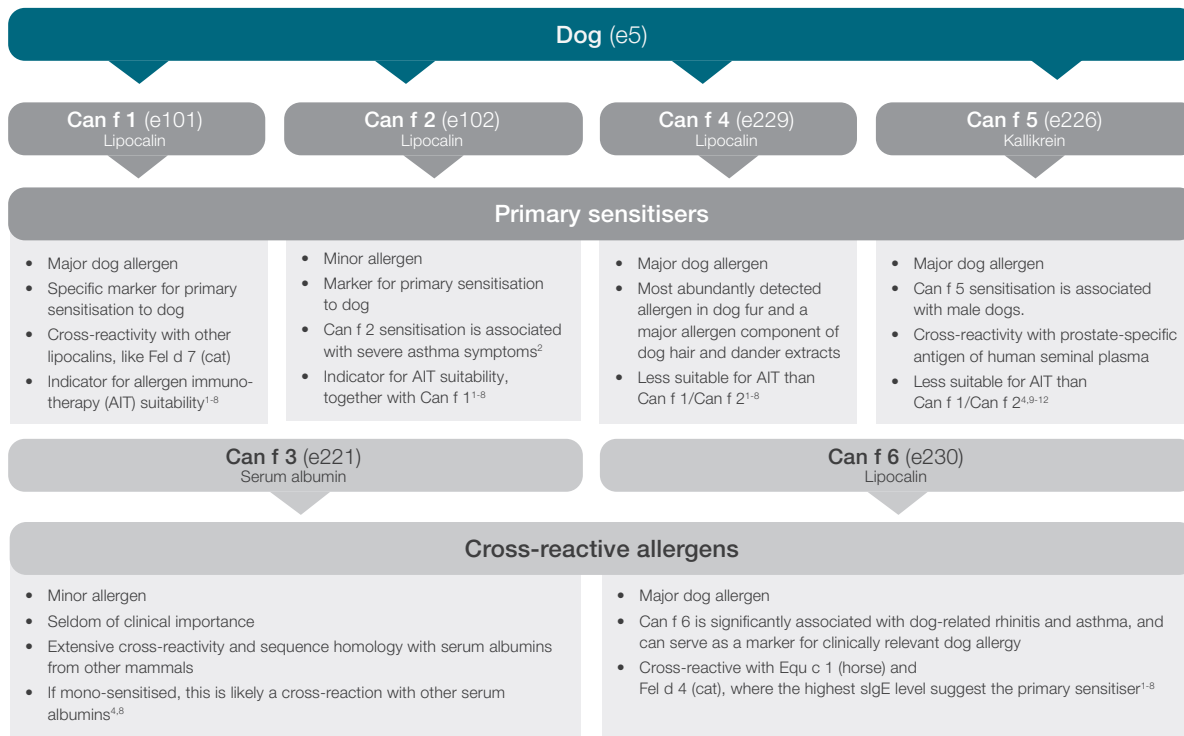
ImmunoCAP™ Whole Allergen


ImmunoCAP™ Allergen Components



Do you know?

Most children sensitised to dog are sensitised to more than one component, and co-sensitisation to Can f 5 and Can f 1 or Can f 2 has shown to be related with asthma.⁴



| Whole extracts | Allergen components | Allergen family | Interpreting results* | Management considerations |
|---|---------------------|-----------------|---|--|
| Dog dander (e5)  | Can f 1 | Lipocalin | Primary sensitisation to dog is likely ¹⁻⁸ | <ul style="list-style-type: none"> • Patients with asthma are at increased risk of severe symptoms • Consider dog exposure reduction • Consider AIT prescription • Can f 1 and Can f 2 are indicators for successful AIT¹⁻⁸ |
| | Can f 2 | | | |
| | Can f 4 | Lipocalin | Primary sensitisation to dog is likely ¹⁻⁸ | <ul style="list-style-type: none"> • Primary sensitiser • Patients with asthma are at increased risk of severe symptoms • Consider dog exposure reduction • Can f 4 is cross-reactive with lipocalins from other species (cat/horse). Further investigation should be considered and perhaps a broader animal avoidance plan¹⁻⁸ |
| | Can f 6 | Lipocalin | Primary sensitisation to dog is unlikely ¹⁻⁸ | <ul style="list-style-type: none"> • Not a primary sensitiser • Patients with asthma are at increased risk of severe symptoms • Consider dog exposure reduction • Can f 6 is cross-reactive with lipocalins from other species (cat/horse). Further investigation should be considered and perhaps a broader animal avoidance plan¹⁻⁸ |
| | Can f 5 | Kallikrein | Primary sensitisation to male dog is likely ^{4,9-12} | <ul style="list-style-type: none"> • If monosensitised, primary dog allergy to male dogs is likely (30% of patients are monosensitised to Can f 5) • Dog exposure reduction (may be able to tolerate female dogs if monosensitised) • Patients with asthma are at increased risk of severe symptoms • Consider AIT prescription^{4,9-12} |
| | Can f 3 | Serum albumin | Cross-reactive, seldom of clinical importance ^{4,8} | <ul style="list-style-type: none"> • If monosensitised, this is likely a cross-reaction with other serum albumins • Consider additional investigations in patients with moderate to high sIgE levels to exclude sensitisation to unboiled milk and raw or medium cooked meat such as sausages, ham and steaks^{4,8} |

* Results should always be interpreted in the context of the clinical history.

References: 1. Nordlund B, et al. Allergy 2012;67:661–9. 2. Nicholas C, et al. Ann Allergy Asthma Immunol 2010;105:228-33. 3. Konradsen JR, et al. Allergy Clin Immunol 2015;135:616-25. 4. Dramburg S, et al. Pediatr Allergy Immunol 2023;34(Suppl 28):e13854. 5. Canonica GW, et al. World Allergy Organization Journal 2013;6(1):17-7. 6. Asero, R. Eur Ann Allergy Clin Immunol 2012;44(5):183-7. 7. Schmid-Grendelmeier, P, et al. Der Hautarzt 2010;61(11):946-953. 8. Kleine-Tebbe, J. and Jakob, T. Editors: Molecular Allergy Diagnostics. Springer International Publishing Switzerland 2017. 9. Mattsson L, et al. J Allergy Clin Immunol 2009;123(2):362-368. 10. Basagana, M. Allergy Int Arch Allergy Immunol 2012;159:143–146. 11. Kofler L, et al. Eur Ann Allergy Clin Immunol 2012;44(2):89-92. 12. Schoos AM, et al. J Allergy Clin Immunol Pract 2017;5(6):1754-1756. **Official product names:** ImmunoCAP Allergen e5, Dog dander; ImmunoCAP Allergen e101, Allergen component rCan f 1, Dog; ImmunoCAP Allergen e102, Allergen component rCan f 2, Dog; ImmunoCAP Allergen e221, Allergen component rCan f 3, Dog serum albumin; ImmunoCAP Allergen e229, Allergen component rCan f 4, Dog; ImmunoCAP Allergen e226, Allergen component rCan f 5, Dog; ImmunoCAP Allergen e230, Allergen component rCan f 6, Dog

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