

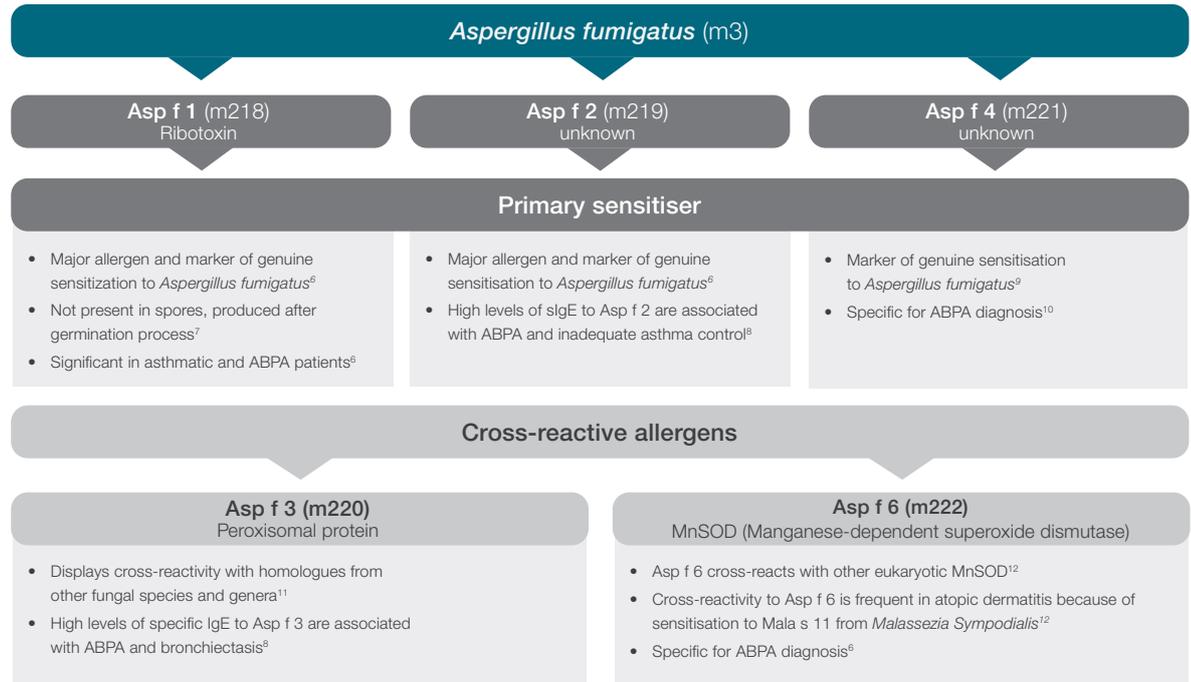
Aspergillus fumigatus

ImmunoCAP™ Specific IgE tests

Aspergillus fumigatus is a saprotroph and opportunistic filamentous fungus widely distributed all over the world and is the causal agent of allergic and infectious diseases affecting dozens of millions of people globally.¹⁻³ **Allergic bronchopulmonary aspergillosis (ABPA)** is the most severe *Aspergillus*-related allergic disease, affecting 1-2.5% of asthmatic patients and up to 10% of cystic fibrosis patients during their lifetime.⁴ Other significant allergic *Aspergillus*-related diseases are **allergic fungal rhinosinusitis (AFRS)** and **severe asthma with fungal sensitisation (SAFS)**.⁵

ImmunoCAP™
Whole Allergen

ImmunoCAP™
Allergen Components



Whole extract <i>Aspergillus fumigatus</i>	Primary sensitisers Asp f 1 / Asp f 2 / Asp f 4	Cross-reactive allergens Asp f 3 / Asp f 6	Interpreting results*	Management considerations
			<ul style="list-style-type: none"> Primary allergy to <i>Aspergillus fumigatus</i>^{6,9} 	<ul style="list-style-type: none"> Genuine sensitisation to <i>Aspergillus fumigatus</i>^{6,9} <i>Aspergillus fumigatus</i> exposure reduction
			<ul style="list-style-type: none"> Cross sensitisation from other mould species is likely^{11,12} 	<ul style="list-style-type: none"> Consider further investigations to identify the primary sensitiser¹¹⁻¹³
			If all components in the algorithm are negative and m3 is positive, the patient might be sensitised to an untested allergen. As such, in the context of clinical history, exposure reduction may still be recommended. ¹⁵	

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

Allergic and infectious diseases caused by *Aspergillus fumigatus*

- Aspergillus-related allergic** (type I hypersensitivity, IgE): Diseases mainly affect asthmatic and cystic patients, although rhino-sinusal forms may develop in otherwise nonaffected subjects
- Hypersensitivity pneumonitis** (type III hypersensitivity, IgG): Disease that may develop in the context of occupational exposure, for example in farmers and in rural, malt, or stucco workers
- Allergic bronchopulmonary aspergillosis (ABPA)**: Most severe *Aspergillus*-related allergic disease, affecting 1-2.5% of asthmatic patients and up to 10% of cystic fibrosis patients during their lifetime⁴
- Allergic fungal rhinosinusitis (AFRS)** and **severe asthma with fungal sensitisation (SAFS)**: AFRS is a unique form of immune-mediated non-invasive fungal rhinosinusitis; SAFS is another phenotype of severe asthma associated with fungal sensitization in adults having overlapping characteristics with ABPA⁵



References: 1. Dellièri S, et al. *Mycopathologia* 2023;188, 603–621. 2. Bongomin F, et al. *Journal of fungi* 2017;3(4):57. 3. Rhodes JC. 2006;44(Suppl 1):S77-81. 4. Patel G, et al. *Allergy and Asthma Proceedings* 2019;40(6):421-424. 5. Wiesmuller GA, et al. *Allergo J Int* 2017;26(5):168-193. 6. Carsin A, et al. *Allergy* 2017;72(11):1632-1642. 7. De Linares C, et al. *J. Fungi* 2023. 8. Muthu V, et al. *Clin Exp Allergy* 2018. 9. Fukutomi Y, et al. *Official journal of the Japanese Society of Allergology* 2016. 10. Luo W, et al. *J Clin Lab Anal* 2020. 11. Hillmann F, et al. *Sci Rep* 2016. 12. Cramer, R. *Clin Exp Allergy* 2012. 13. Bowyer P, et al. *Medical Mycology* 2006. 14. Patterson TF, et al. *Clinical Infectious Diseases* 2016. 15. Dramburg S, et al. *Pediatr Allergy Immunol* 2023;34(Suppl 28):e13854.

Official product names: ImmunoCAP Allergen m3, *Aspergillus fumigatus*; ImmunoCAP Allergen m218, Allergen component rAsp f 1 *Aspergillus fumigatus*; ImmunoCAP Allergen m219, Allergen component rAsp f 2 *Aspergillus fumigatus*; ImmunoCAP Allergen m220, Allergen component rAsp f 3 *Aspergillus fumigatus*; ImmunoCAP Allergen m221, Allergen component rAsp f 4 *Aspergillus fumigatus*; ImmunoCAP Allergen m222, Allergen component rAsp f 6 *Aspergillus fumigatus*

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