

Patient ID:			Referring Physician:
Patient Name:			
Date of Birth:	13/05/1930		
Sample ID:	0010996		Additional Information:
Barcode:	01AAP056		
Sampled on:	05/03/2018		
Tested on:	09/03/2018		
Printed on:	06/03/2019		

Lab report: Summary on detectable sensitisations

			Cross-reactive Allergen Families	
Pollen	Grass Pollen	2	Polcalcin	0
	Tree Pollen	0	Profilin	0
	Weed Pollen	2	PR-10	0
Mites	House Dust Mites & Storage Mites	2	Ole e 1 Family	0
Microorganisms	Fungal Spores & Yeast	0	LTPs	1
Plant-Based Food	Legumes	0	Storage Proteins	0
	Grain	0	Lipocalins	0
	Spices	0	NPC2	2
	Fruits	0	Serum albumin	0
	Vegetables and mushrooms	0	Parvalbumin	0
	Nuts & Seeds	0	Tropomyosin	0
Animal-Derived Food	Milk	0	CCD	0
	Egg	0		
	Fish & Seafood	0		
	Meat	0		
Insects & Venoms	Bee, Wasp	2	Total IgE (kU/L)	694
	Cockroach	0		
Epithelial Tissues of Animals	Pets	2		
	Animals	0		
Others	Latex	0		
	Ficus & Hops	0		
	CCD	0		

Highest measured IgE concentration per allergen group				
< 0,3 kU _A /L	0,3 - 1 kU _A /L	1 - 5 kU _A /L	5 - 15 kU _A /L	> 15 kU _A /L
0	1	2	3	4
Negative or uncertain	Low IgE level	Moderate IgE level	High IgE level	Very high IgE level

Normal Total-IgE	
Kids:	Cord blood up to 0,70 kU/I, 0-½ years up to 2,75 kU/I, ½-2 years up to 3,75 kU/I, 2-5 years up to 16,0 kU/I, 5-8 years up to 26,2 kU/I, 8-12 years up to 34,6 kU/I, 12-16 years up to 26,3 kU/I
Adults:	< 20 kU/I Allergy unlikely, 20 - 100 kU/I Allergy possible, > 100 kU/I Allergy likely

Name	Allergen	E/M(*)	Function	kU _A /L
Pollen				
Grass Pollen				
Perennial Ryegrass	Lol p 1	M	Beta-Expansin	2,38
Timothy grass	Phl p	E		1,51
Timothy grass	Phl p 1	M	Beta-Expansin	4,34
Timothy grass	Phl p 5.0101	M	Grass Goup 5/6	1,97
Cultivated rye, Pollen	Sec c_pollen	E		0,49
Weed Pollen				
Wall pellitory	Par j	E		3,88
Wall pellitory	Par j 2	M	nsLTP	0,96
Mites				
House Dust Mite				
American house dust mite	Der f 2	M	NPC2 Family	0,58
European house dust mite	Der p	E		1,22
European house dust mite	Der p 2	M	NPC2 Family	1,54
Hymenoptera Venoms				
Honey Bee Venom				
Honey bee	Api m	E		0,32
Wasp Venom				
Wasp venom	Ves v	E		3,81
Wasp venom	Ves v 5	M	Antigen 5	2,72
Animal Origin				
Pet				
Cat	Fel d	E		2,58
Cat	Fel d 1	M	Uteroglobin	2,58

Allergenus Analysis

GENERAL CONSIDERATIONS

The test is positive and specific sensitization to allergens or molecular component has been detected. The following sensitization(s) were observed: inhalants, genuine components, cross-reacting components, as defined in(PMID: 24090398).

The total score for molecular components of this test is 17.0 kU_A/L, of which 16.1 kU_A/L are related to genuine components, while 0.9 kU_A/L are related to pan-allergens and/or cross-reactive components.

The component ratio is 94.4%, corresponding to the Phenotype II (PMID: 23703065), characterized by a prevalent sensitization to genuine inhalant components. The frequency of this phenotype is 16% and it is associated to good results following immunotherapy(PMID: 20981399).

Circulating total IgE are 694 IU/ml. The total IgE value is in excess of the patient's upper age reference limit. This is a result compatible with the presence of positive specific IgE.

SHORT SUMMARY

ALEX has identified a sensitization to Grasses. If the patient's symptoms have a seasonality - or if the symptoms are accentuated at the time of grass pollination, it is likely that it is not just a sensitization to grasses but it is a real allergy. For some entry-level indications of treatment [click here](#).

ALEX identified a sensitization to Mites. If the patient's symptoms do not have a seasonality - or if the symptoms are accentuated by dusty environments, it is likely that it is not just a sensitization to mites but it is a real allergy. For some entry-level indications of treatment [click here](#).

ALEX has identified apparently genuine sensitization to animal epithelium inhalants. If the patient's symptoms do not have a seasonality - or if the symptoms are accentuated by attending pets or farm animals, it is likely that this is a genuine sensitization to these allergens. For some entry-level indications of treatment [click here](#).

ALEX has identified an apparently genuine sensitization to Wall Pellitory. If the patient's symptoms appear or are accentuated at the time of the Wall Pellitory pollination phase, or are accentuated in areas where Wall Pellitory is particularly present, it is likely that this is a genuine sensitization to these allergens. For some entry-level indications of treatment [@ff_therapy_web,parietaria\)click here](#)

COMPLETE LIST OF THE RESULTS

INHALANT ALLERGENS

ANIMALIA

Arachnida

European house dust mite (Dermatophagoides pteronyssinus). The score is 1.2 kU_A/L the sensitization to Dermatophagoides pteronissinus may be involved in allergic reactions such as rhinitis, conjunctivitis and asthma
GENUINE COMPONENTS. The sensitization is specific.

Der p 2, score = 1.5 kU_A/L (NPC2).

Mammalia

Cat (Felis domesticus). The score is 2.6 kU_A/L the sensitization to Cat allergens may be involved in allergic reactions such as rhinitis, conjunctivitis and asthma

GENUINE COMPONENTS. The sensitization is specific.

Fel d 1, score = 2.6 kU_A/L (Uteroglobin).

PLANTAE

Liliopsida

Thimothy grass (Phleum pratense). The score is 1.5 kU_A/L the sensitization to Thimothy grass inhalant allergens may be involved in allergic reactions such as rhinitis, conjunctivitis and asthma

GENUINE COMPONENTS. The sensitization is specific.

Phl p 1, score = 4.3 kU_A/L (Expansin).

Phl p 5_0101, score = 2.0 kU_A/L (Group 5 grass).

Cultivated rye pollen (Secale cereale). The score is 0.5 kU_A/L the sensitization to Cultivated Rye inhalant allergens may be involved in allergic reactions such as rhinitis, conjunctivitis and asthma.

Magnoliopsida

Wall Pellitory (Parietaria judaica). The score is 3.9 kU_A/L the sensitization to Wall Pellitory inhalant allergens may be involved in allergic reactions such as rhinitis, conjunctivitis and asthma

CROSS-REACTING COMPONENTS. The sensitization could not be genuine.

Par j 2, score = 0.9 kU_A/L (nsLTP).

HYMENOPTERA VENOMS

ANIMALIA

Patient:

(*) E=Allergen Extract, M=Molecular Allergen
IgE < 0.3 negativ or in question

Insecta

Bee venom (*Apis mellifera*). The score is 0.3 kU_A/L the sensitization to Bee venom should be carefully considered in the context of the clinical picture.

Yellow jacket (*Vespula vulgaris*). The score is 3.8 kU_A/L the positivity to this component must be evaluated with great attention in the context of the history and of the clinical picture of the patient.

GENUINE COMPONENTS. The sensitization is specific.

Ves v 5, score = 2.7 kU_A/L (Phospholipase A1B).

RESULTS OF COMPONENTS NOT ASSOCIATED TO AN ALLERGEN EXTRACT

Lol p 1, Expansin from Perennial ryegrass. The score is 2.4 kU_A/L the sensitization seems to be genuine even if expansins of grasses are largely cross-reacting

RESULTS OF COMPONENTS ASSOCIATED TO NEGATIVE ALLERGEN EXTRACT RESULTS

Der f 2, (NPC2), an allergen belonging to inhalants. The score is 0.6 kU_A/L It is a genuine component and for this reason, the sensitization should be genuine.

CROSS REACTING COMPONENT ANALYSIS

Please note that components not associated to a positive extract (such as Lol p 1) can be shown in this list.. Please note that components positive in the presence of a negative extract - a rare but possible situation - can also be shown in this list.

Expansin. Family score = 6.7 kU_A/L. In particular:

Phl p 1. Score = 4.3 kU_A/L

Lol p 1. Score = 2.4 kU_A/L

Family analysis: A minor fraction of the components belonging to this family is positive and for this reason, it is probable that the patient has a sensitization to these specific molecules.

nsLTP. Family score = 0.9 kU_A/L. In particular:

Par j 2. Score = 0.9 kU_A/L

Family analysis: A minor fraction of the components belonging to this family is positive and for this reason, it is probable that the patient has a sensitization to these specific molecules.

NPC2. Family score = 2.1 kU_A/L. In particular:

Der f 2. Score = 0.6 kU_A/L

Der p 2. Score = 1.5 kU_A/L

-- Family analysis: More than 40% of the components of this family are positive. For this reason, it is possible that the patient is sensitized to the whole family.

POST MOLECULAR ANAMNESIS

Sensitization to PARIETARIA: ask if have been observed symptoms following ingestion of pistachio → "Pellitory Pistachio Association". (PPA).

Sensitization to CAT allergens. Ask if any symptoms after ingestion of pork meat. → Cat-pork syndrome (CPS).

The analysis of the IgE profile of, was performed on Wed 06 Mar 2019 - 20:54:41 by ALEX MacroArray Diagnostics GmbH, Vienna, Austria. The elaboration was performed by Allergenius V10_1, based on a published routine (PMDI: PMC4070085), powered by Phenomix Ltd, Genova, Italy and based on flex, an expert system shell from LPA Ltd, London, United Kingdom. ALEX contains 282 allergens (159 whole allergen extract and 123 recombinant or highly purified components), covering a virtually complete spectrum of allergen families.

IMPORTANT NOTICE. THIS TOOL IS AN INFORMATIC SUPPORT TO THE DIAGNOSIS OF THE ALLERGIST, BUT IT IS UNDERSTOOD THAT THE DIAGNOSIS OF AN ALLERGIC DISEASE IS A SPECIFIC TASK OF THE ALLERGIST. THE IN VITRO TESTS ONLY SHOW THE PRESENCE OF A SENSITIZATION TO ONE OR MORE MOLECULAR COMPONENTS. THE DIAGNOSIS OF ALLERGY IS OBTAINED BY THE PRESENCE OF A SENSITIZATION AND OF SUITABLE CLINICAL SIGNS AND SYMPTOMS AND MUST BE MADE BY THE ALLERGIST. FOR THESE REASONS, THIS EXPERT SYSTEM CANNOT BE USED AS A SUBSTITUTE OF THE EXPERTISE OF THE PHYSICIAN.