Test Definition: CASHX

Cashew Component, IgE, Serum
(Non-Orderable)

Overview

Useful For

Only orderable as a reflex. For more information see CASHR / Cashew, IgE, with Reflex to Cashew Component, IgE, Serum

Evaluation of patients with suspected cashew allergy to component Ana o 3

Testing Algorithm

If the cashew-specific total IgE result is 0.10 kU/L or more, then the cashew component (Ana o 3) testing is performed at an additional charge.

Method Name

Only orderable as a reflex. For more information see CASHR / Cashew, IgE, with Reflex to Cashew Component, IgE, Serum

Fluorescent Enzyme Immunoassay (FEIA)

NY State Available

Yes

Specimen

Specimen Type

Serum

Specimen Required

Only orderable as a reflex. For more information see CASHR / Cashew, IgE, with Reflex to Cashew Component, IgE, Serum

Supplies: Sarstedt Aliquot Tube, 5 mL (T914)
Collection Container/Tube:
Preferred: Serum gel
Acceptable: Red top
Submission Container/Tube: Plastic vial
Specimen Volume: 0.6 mL Serum
Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume

Serum: 0.4 mL

Reject Due To

Gross hemolysis	OK
Gross lipemia	OK
Gross icterus	OK

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	14 days	
	Frozen	90 days	

Clinical & Interpretive

Clinical Information

Allergies to tree nuts are relatively prevalent and can result in severe reactions. The main culprits in tree nut allergies include walnut, almond, pistachio, cashew, pecan, hazelnut, macadamia, Brazil nut, and pine nuts. Tree nut allergy often appears in young children and estimates of prevalence range from 0.1 % to greater than 5% of the population, dependent on geographical region.

In the case of nut-induced allergic reactions, as with many other foods, symptoms usually present within minutes of ingestion. Over 80% of reactions to tree nuts involve allergy related respiratory symptoms. Tree nut allergies are one of the most dangerous types of allergic reaction with 20% to 40% of cases of related anaphylaxis, and 70% to 90% of fatalities attributable to nut exposure, including peanut exposure.

Ana o 3 is a heat and digestion stable storage protein found in high abundance in cashew nuts. Approximately 80% of those with cashew allergy exhibit reactivity to the Ana o 3 component. Cashew nut allergy is often associated with severe reactions. Sensitization with Ana o 3 is associated with anaphylaxis in system reactions.

Severe reactions in those with cashew nut allergy occur at a higher frequency than in those with peanut allergy. Cashews can be found in Asian cuisines, pesto, and nut butter. Cooking will not destroy the allergenic potential of Ana o 3 f. In addition to being severe, cashew nut allergy is persistent and can manifest early in life. Co-sensitization has been repeated between pistachio, walnuts, and, to a lesser extent, hazelnut.

Reference Values

Only orderable as a reflex. For more information see CASHR / Cashew, IgE, with Reflex to Cashew Component, IgE, Serum

Class	IgE kU/L	Interpretation
0	<0.10	Negative
0/1	0.10-0.34	Borderline/Equivocal

1	0.35-0.69	Equivocal
2	0.70-3.49	Positive
3	3.50-17.4	Positive
4	17.5-49.9	Strongly positive
5	50.0-99.9	Strongly positive
6	> or =100	Strongly positive

Concentrations of 0.70 kU/L or more (class 2 and above) will flag as abnormally high.

Reference values apply to all ages.

Interpretation

When detectable total cashew IgE antibody is present (> or =0.10 IgE kUa/L), additional specific component IgE antibody testing will be performed. If a potential specific allergenic cashew component IgE is detectable (> or =0.10 IgE kUa/L), an interpretive report will be provided.

When the sample is negative for total cashew IgE antibody (<0.10 IgE kUa/L), further testing for specific cashew component IgE antibodies will not be performed. A negative IgE result for total cashew antibody may indicate a lack of sensitization to the potential cashew allergenic component.

Cautions

Clinical correlation of results from in vitro IgE testing with patient history of allergic or anaphylactic responses to cashew nuts is recommended.

Negative results for IgE antibodies against cashew nut extract or allergenic components do not completely exclude the possibility of clinically relevant allergic responses upon exposure.

Positive results for IgE to cashew nuts or any potential cashew allergenic components are not diagnostic for allergy and only indicate patient may be sensitized to cashew nuts or a cross-reactive allergen.

Testing for IgE antibodies may not be useful in patients previously treated with immunotherapy to determine if residual clinical sensitivity exists or in patients whose medical management does not depend upon the identification of allergen specificity.

False-positive results for IgE antibodies may occur in patients with markedly elevated serum IgE (>2500 kU/L) due to nonspecific binding to allergen solid phases.

Cross-reacting carbohydrate determinants may also result in positive total cashew specific IgE testing.

Clinical Reference

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Performance

Method Description

Specific IgE from the patient's serum reacts with the allergen of interest, which is covalently coupled to an ImmunoCAP. After washing away nonspecific IgE, enzyme-labeled anti-IgE antibody is added to form a complex. After incubation, unbound anti-IgE is washed away, and the bound complex is then incubated with a developing agent. After stopping the reaction, the fluorescence of the eluate is measured. Fluorescence is proportional to the amount of specific IgE present in the patient's sample (ie, the higher the fluorescence value, the more IgE antibody is present).(Package insert: ImmunoCAP System Specific IgE FEIA. Phadia; Rev 06/2020)

PDF Report

No

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Cashew Component, IgE, Serum
(Non-Orderable)

Day(s) Performed
Monday through Friday

Report Available
Same day/1 to 3 days

Specimen Retention Time
14 days

Performing Laboratory Location
Mayo Clinic Laboratories - Rochester Superior Drive

Fees & Codes

Fees
- Authorized users can sign in to Test Prices for detailed fee information.
- Clients without access to Test Prices can contact Customer Service 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact Customer Service.

Test Classification
This test has been cleared, approved, or is exempt by the US Food and Drug Administration and is used per manufacturer's instructions. Performance characteristics were verified by Mayo Clinic in a manner consistent with CLIA requirements.

CPT Code Information
86008

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
CASHX	Cashew Component, IgE, S	6718-1

Result ID	Test Result Name	Result LOINC® Value
ICASH	Cashew IgE Antibody Interpretation	69048-7
O3ANA	Ana o 3 (Cashew), IgE, S	6718-1