



CCD Antibodies

Antibodies to cross-reactive Carbohydrate side chains

Background

The abbreviation CCD is used for *Cross-reactive Carbohydrate Determinants* that are found in a multitude of allergens (e.g. grasses, insect venoms, food and latex). In rare cases CCD binding immunoglobulins of subclass E (IgE) can be detected in patients with Type I allergy. The prevalence and the clinical relevance of sIgE to CCD has not been completely assessed yet. However, it is known that discordant results between anamnesis, skin prick test (SPT) and *in-vitro* analysis can be caused by sIgE to CCD.

Intended Use

The determination of sIgE to CCD is indicated in the following conditions:

- positive test for sIgE to bee and wasp venom versus negative SPT and/or negative anamnesis;
- Sensitisation against latex found in persons allergic to pollen, but without risk/problems using e. g. latex gloves;
- Sensitisation to plant food (especially vegetables and fruits, but also seeds) without clinical symptoms;
- In patients with multiple positive sIgE test results.

Procedure

If the presence of CCD sIgE is suspected, the test can be performed as follows:

1. REAST (ALLERG-O-LIQ)

Using the REAST (ALLERG-O-LIQ System) sIgE is detected by employing the enzyme HRP (Horseradish peroxidase), which contains seven side chains of carbohydrates. In the presence of CCD sIgE HRP functions both as IgE binding site and as detecting reagent, yielding a positive result without addition of any allergen. CCD can therefore be detected by adding dilution buffer instead of biotinylated allergens to the test.

2. EAST

Using EAST the presence of sIgE to CCD can be proven by testing for sIgE to horseradish (F253).

Related Products

Product	REF
Specific IgE EAST with 4 calibrators	0540200PKL / 0541000PKL 074000PQ
Specific IgE EAST with 6 calibrators	0560200PKL / 0561000PKL 076000PQ
Allergen disc horseradish	F253
Specific IgE REAST with 6 calibrators	0520960FL 07050FL
CCD Buffer	05202FL

Literature

Altmann F: **The role of protein glycosylation in allergy.**
Int Arch Allergy Immunol 2007, **142**:99-115. Review.