



C.A.R.L.A.® SYSTEM

(Capture Assay Radim Liquid Allergens)

for automated
in-vitro Allergy detection

from a wide
experience,
a consolidated
know-how,
a proved
quality.

 **Diachel**®

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RADIM

From RAB® to C.A.R.L.A.® system

RADIM has been working in the allergy field since 1986, developing the RAB® System, a coated bead method based on the traditional approach of solid phase allergens, available in the radio-immunological as well as enzymatic version. Since then, RADIM R&D has continuously worked to improve both quality and assay performances, strongly feeling the need to develop a **new system, to be used for rapid specific IgE testing, in total automation**. In 1993 Radim introduced the **CARLA®-SYSTEM (Capture Assay Radim Liquid Allergens) a "capture" method, with liquid phase allergens and unique solid phase for both standards and samples, designed for total automation** (Olivieri V. et al., Capture Assay for Specific IgE: an improved quantitative method. J Imm Methods, 1993, 157:65-72). Since that time CARLA has been continuously updated, thanks to Radim Group commitment to fulfill the user's need to rely on a sensitive, precise and user-friendly diagnostic system. Today more than 40 countries worldwide employ Carla® System as a reference in Allergy testing.

At the same time, the RADIM R&D, manufacturing both in vitro diagnostics as well as dedicated equipment, has developed in the course of years three generations of automated equipment for ELISA testing on microplate, being **ALISEI** the newest one, after **BRIO** and **ARIO** instruments, which represents the highest evolution in microplate automation.

CARLA® SYSTEM GENERAL FEATURES

"Capture" ELISA method on microplate

Unique solid phase for standard and samples

Liquid, ready for use allergens

Quantitative results (IU/ml and Classes)

Standard calibrated against 2nd IRP WHO 75/502 for Total IgE

High stability (9-15 months)

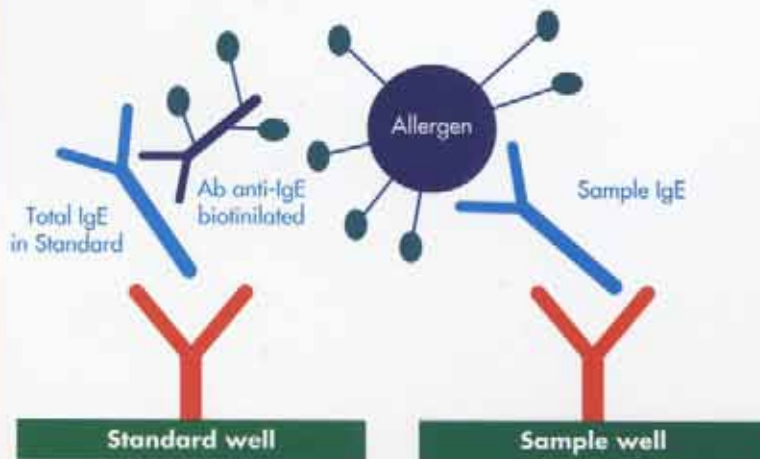
Excellent sensitivity (0.15 IU/ml)

Total automation of all test phases

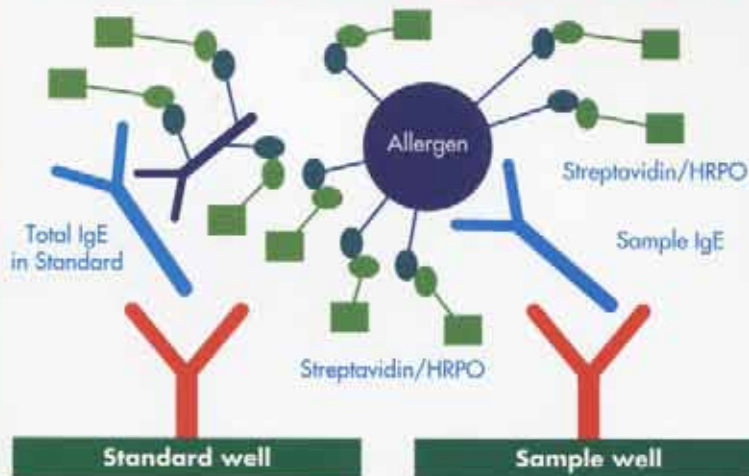
Total flexibility and customizing of Laboratory routine

Advanced, user-friendly software

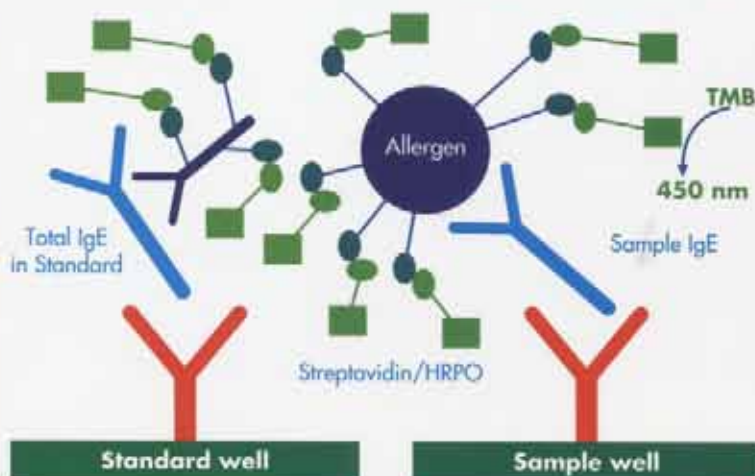
C.A.R.L.A.[®]: 1st STEP ASSAY SCHEME



C.A.R.L.A.[®]: 2nd STEP ASSAY SCHEME



C.A.R.L.A.[®]: 3rd STEP ASSAY SCHEME



The CARLA[®] SYSTEM is an enzyme immunoassay for specific IgE, based upon a "capture" method.

In the "capture" assay, the solid phase (microwells in this case) is coated with a monoclonal anti-human IgE antibody. Such antibody is able to capture all IgE in the serum (either standard or patient sample) regardless of their specificity.

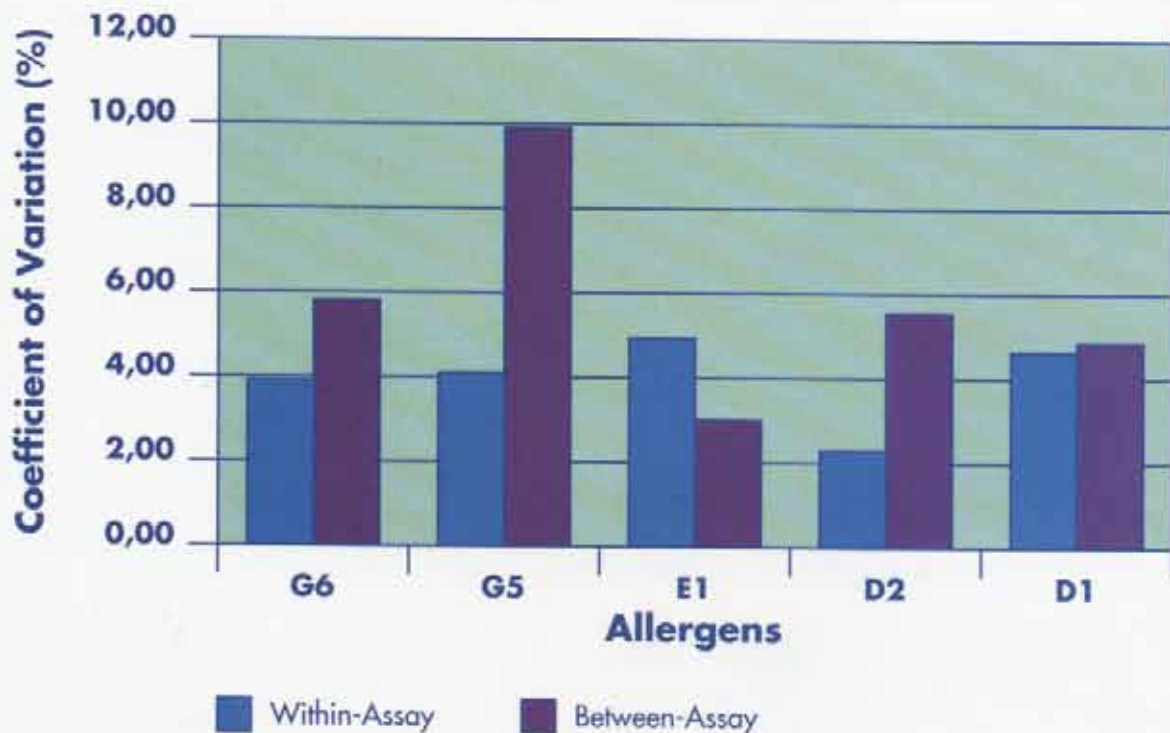
In the **first step**, the samples are incubated with a biotinylated-allergen solution in the wells. During the incubation, the sample IgE antibodies are bound to the solid phase. At the same time, the biotinylated allergen is bound to the sample IgE, specific for that allergen, if any, thereby identifying them.

After washing of unbound material, the enzyme tracer (streptavidin-HRPO) is added in the **second step** to the wells. Here it binds to the biotinylated allergen.

After a second wash cycle, the enzyme activity left in the solid phase will be directly proportional to the amount of allergen-specific IgE in the sample.

It is evidenced by adding a chromogen

C.A.R.L.A.[®]: Precision (CV%) on ALISEI



**CARLA[®] System: Within-Assay and Between-Assay data obtained on ALISEI.
Total Coefficient of Variation <10%**

(tetramethylbenzidine) solution in substrate buffer to the wells (**third step**).

A spectrophotometer will read the color intensity in the wells. In order to quantify specific IgE, a standard curve with known amounts of total IgE is incubated with biotinylated anti-IgE antibody in the same microplate. After incubating with the enzyme tracer and chromogen (common for both standards and samples), the sample absorbances will be compared with the standard curve and their specific-IgE concentrations expressed in terms of International Units of total IgE.

Thus, the CARLA method uses a unique solid phase for both standards and samples, thereby making the assay preparation much easier and allowing a correct quantitative evaluation of all specific IgE against a standard of total IgE.

The high sensitivity and specificity of this method are granted by the use of monoclonal anti-IgE antibodies as well as accurately titrated liquid allergens, such as to provide maximum sensitivity with minimum aspecific binding.

As the entire test-run lasts about two and a half

hours, the reaction time is of course very short.

An important aspect is that, in the capture assay there is absolutely no risk of interferences with other classes of immunoglobulins.

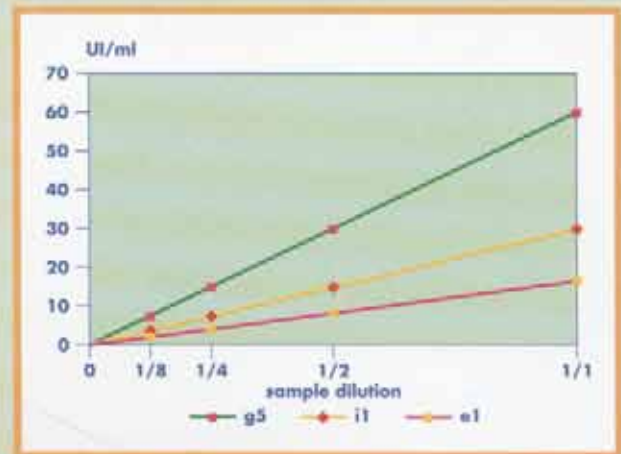
Thus, the problem of underestimating specific IgE due to high serum concentrations of allergen-specific IgG is totally avoided by the CARLA system.

| RAST | | CARLA | |
|---------|---------|---------|---------|
| (UI/ml) | | (UI/ml) | |
| Samples | | Samples | |
| Control | Treated | Control | Treated |
| 1.6 | 1.7 | 4.9 | 4.8 |
| 2.1 | 2.3 | 6.4 | 6.5 |
| 11.0 | 15.0 | 40.0 | 38.8 |
| 8.0 | 17.0 | 45.0 | 44.7 |
| 7.1 | 6.9 | 14.4 | 14.6 |
| 10.5 | 11.0 | 36.4 | 35.9 |
| 1.3 | 2.6 | 8.0 | 8.2 |
| 3.1 | 3.0 | 11.1 | 11.4 |
| 1.8 | 1.9 | 7.7 | 7.5 |

The **table illustrates** the results obtained in testing 9 samples from patients immunized with apis venom. These sera were tested as such (controls) as well as after IgG removal treatment. Apis venom specific IgE were assayed with both RAST and CARLA methods. No IgG-interferences were found using CARLA.

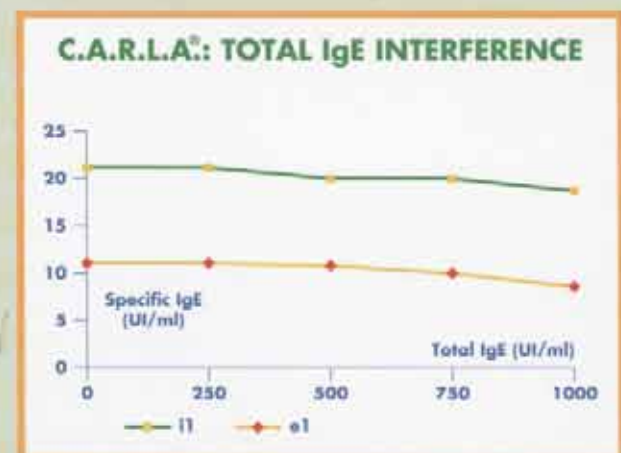
The linearity of the CARLA system response was evaluated by using sera with high specific IgE concentrations, diluted with a serum from human IgE. Three examples are reported in this figure: one serum positive for cat epithelium (e1), one for apis venom (i1) and one for Lolium perenne(g5); as

shown, the response stays linear within a wide concentration range.



High levels of non-specific IgE do not interfere with the CARLA capture system.

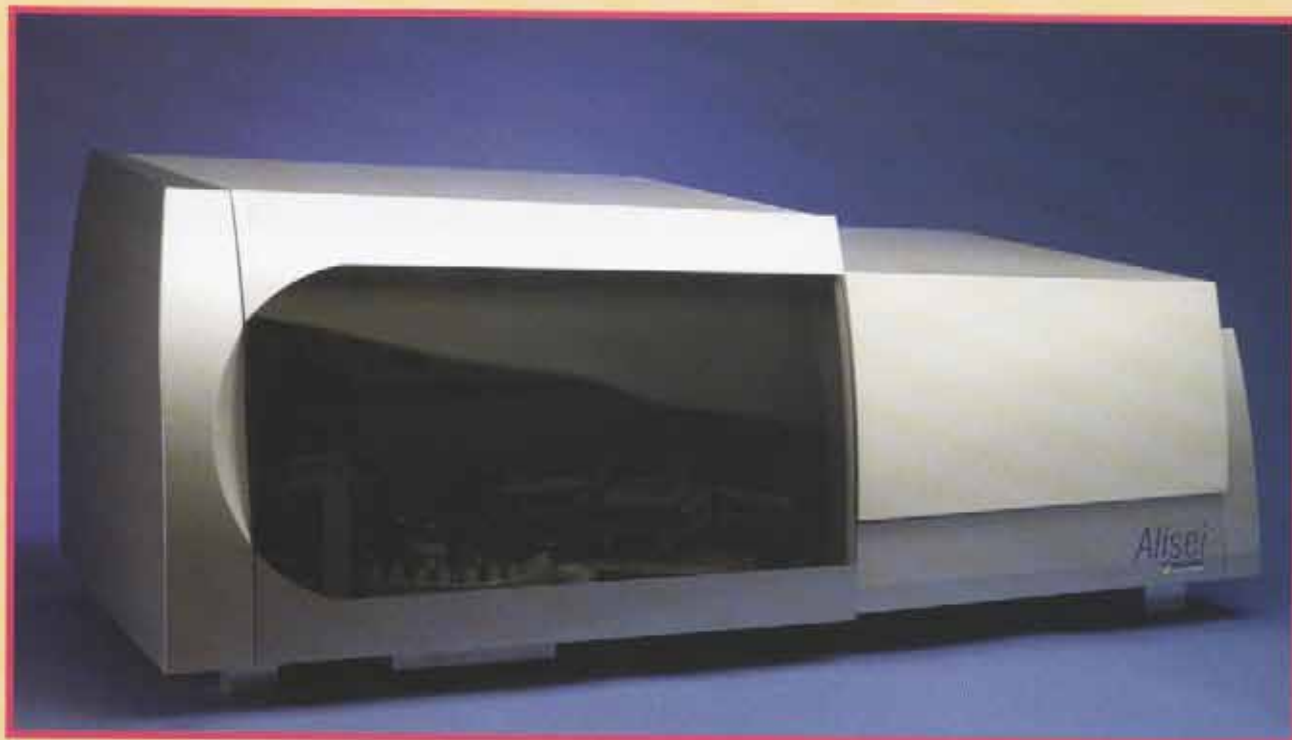
The results on graph were obtained from two human sera: one positive for apis venom (i1) the other for cat epithelium(e1), both samples aliquoted with equal concentrations of specific IgE, but with rising levels of total IgE. Specific IgE results were not significantly affected, even after increasing the amount of total IgE 40 times.



C.A.R.L.A.[®] system in automation

Alisei- the third generation of walk-away analyzers

ALISEI is the most recent result of our long experience in designing open systems for ELISA testing, first with BRIO, the automated system on the market since 1992 with more than 1300 pieces produced, and later on with ARIO, the walk-away analyzer for large routines, which has been on the domestic and international market since 1995. ALISEI, the third generation of our automated equipment, offers the highest evolution in microplate automation.



SIX MICROPLATE SUPPORTS, each independent for incubation and shaking at different temperatures, constitute an ideal configuration for test-runs (16 tests on line and 240 samples), thus offering an excellent performance in a short amount of time, with great benefits for ALLERGY testing.

SAMPLES AND REAGENTS are placed on 4 rotating, removable plates. A bar-code system, centered among the four racks, allows positive identification of both samples and reagents. The reagent rack consists of two refrigerated, rotating plate, which can carry reagents and standards up to 16 tests on line. For the Specific IgE assay, the systems allows to **perform 6 microplates and 110 allergens/240 samples on a test-run, up to 568 determinations.**

Cooling of the reagent support makes the instrument always ready for the user, by reducing preliminary manual operations to a minimum. The reagent configuration can be stored by the handling software, allowing the user to leave allergen-vials always in the same position; each variation is allowed at any time before test-running, according to user's needs.

The DISPENSING SYSTEM includes two independent needles, which are able to aspirate from two adjacent samples, or else, from the same reagent, to be dispensed into two separate wells at once. A liquid and clot detector is provided for each needle in order to grant a correct functioning of the system.

With accordance to test-phases, the microplates are automatically carried into TWO

INDEPENDENT WASHING AND READING STATIONS (software-mediated) granting a faster performance of simultaneous test phases.

The MANAGEMENT PROGRAM of the instrument is resident on an external PC. The handling software is extremely advanced, yet user-friendly and self-explanatory, in Windows setting. The software is able to handle different test-methods during the same test run, such as CARLA Specific IgE, Total IgE, CARLA Screen, together with other ELISA tests. The program is made of different modules which allow the user:



- to insert and modify tests and their features;
- to insert the work-list along with all relevant patient data;
- to monitor the entire test-run;
- to display and manage the final results;
- to personalise and print the patient report.

Quantitative results are expressed both in concentrations (0-100 IU/ml; 2nd IRP IgE WHO 75/502) and classes (0-5) and can be printed by ID or allergen sequence.

The software also includes a Service module for checking instrument mechanical functioning. The User's manual can at any time be visualized "on line" on the respective working page. Some other main features are:

- T.M.S. (time management system) to optimize the time scores of each single test
- Automated error recovery
- Curve storage, whereby a new curve can be calculated by using only two calibrators
- Historical Patient Record, with statistical evaluation of results
- Quality Control Program.

From small to large routines: BRIO and ARIO instruments



BRIO

Open system to any ELISA 96-well microplate testing. BRIO operates simultaneously on 4 microplates, for a maximum capacity of 60 samples per run and 101 allergens on line (384 tests). All operating functions (dispensing, incubation, washing) are software mediated. A spectrophotometer interface enables reading and calculation of results, data storage and patient reports.

Main features

- 101 allergens (bi-planar tray) and 60 samples can be run on line.
- Calibrators, allergens and reagents are directly dispensed from original vials and tubes.
- All working phases, including task-list, patient-allergen combination, test performance and patient reports are totally computer handled.
- Individual and/or pre-determined allergen profiles are provided.
- Easy handling of pending assays.
- Allergens and Patient list updating until assay performance
- Assay time, from preparation to final report is less than 4 hours for 4 microtiterplates.
- Individual reports and patients archive.
- Possibility of communication with host computer for centralized assay handling systems.



ARIO

An extremely fast, integrated walk-away system for full automation of any ELISA 96-well microplate testing. ARIO performs in a single test-run Allergy tests (Specific IgE and Total IgE) together with any other ELISA assay on microplate. ARIO simultaneously performs the dispensing (double needle dispensing arm), washing, incubation and reading functions, by handling up to 12 assays per run, each with different procedure times and modes. The **maximum test handling capacity is 360 samples on 12 microplates**. A two-levels reagent-tray handles 102 (5ml) allergen vials (48 in the lower tray, 54 in the upper tray), and the common reagents. Two bar-codes are available for positive sample identification. The operating mode is in Random access with multi-batch performance. Fits both primary tubes and vacutainers. The software, multi-task and multi-lingual in Windows setting, provides the following main features:

- Unique software handling Allergy and any other ELISA assay. By choosing from the "Methods archive" the test "Allergy", it is possible to assign allergens to the patients
- Automated updating of reagents availability
- Handling of several vials of the same allergen, avoiding the problem of refill
- curve storage;
- automated error recovery;
- TMS (Time Management System), to optimize the different test time scores;
- Host connection.
- Personalized reports, containing patient data, allergy test-results expressed in IU and Classes, together with other ELISA assays effected in the same test-run.

Technical sheet

| | | | |
|-------------------|---|-------------|--|
| Method | : IEMA | Solid Phase | : monoclonal anti-human IgE |
| Separation | : WELL (Capture Method) | Sample | : μ l 50 human serum or plasma |
| Concentration STD | : 0, 0.5, 1, 5, 25, 100 IU/ml T IgE (Std. WHO 75/502) | Incubation | : 60 min. r.t. (1200 rpm) + 60 min. r.t. (1200) + 20 min. r.t. |
| Conjugate | : Streptavidin with HRPO; anti-human IgE antibody with biotin | Washing | : 2 (4 x 0,3 ml) |
| Chromogen | : TMB (tetra methylbenzidine) | | |

ANALYTICAL PERFORMANCES

- **Stability: 9-15 months**
- **Specificity: no cross-reactions with IgG, IgA, IgM and IgD Antibodies**
- **Sensitivity: 0.15 IU/ml**
- **Clinical Cut-off: 0.5 IU/ml**
- **Precision within-assay < 10% (on ALISEI)**
- **Precision between-assay < 5% (on ALISEI)**

AUTOMATION PERFORMANCES

BRIO: 60 samples and 101 allergens on line (384 tests) in 4 hrs.

ARIO: 120 samples using bar code reader (or 240 without), 102 allergens on line. 780 tests in 8 hrs or 364 tests in 4 hrs.

ALISEI: 120 samples using bar code reader (or 240 without).110 allergens on line; 568 tests in 4hrs 20'.

Radim Allergy line

Specific IgE

C.A.R.L.A.® SYSTEM

| Product Name | Code | Tests |
|---|----------------|------------|
| C.A.R.L.A.® - ENZYMATIC SET | KP27EW | 96 |
| | KP27EWB | 192 |
| Quantitative measurement of specific IgE in human serum or plasma; EIA "Capture" Assay. Microplate. | | |
| C.A.R.L.A.® - STANDARD SET | KP28EW | 8 |
| IgE Standard (range 0.5-100 IU/ml) calibrated against the 2 nd IRP 75/502 WHO. | | |
| C.A.R.L.A.® - ALLERGENS | KP49 | 24 |
| | | (1 vial) |
| C.A.R.L.A.® - CHECK | SC27EW | 10 |
| Control Serum with known IgE concentration, specific for d1, d2, e1, g5 and g6. | | (2 vials) |
| C.A.R.L.A.® - SCREEN | KP26EW | 96 |
| Qualitative screening test for aeroallergen-specific IgE in human serum or plasma. Microplate. | | |

C.A.R.L.A.® - ALLERGENS LIST

Each vial (cod. KP49) contains one allergen sufficient for 24 tests. Allergens can be ordered separately, by indicating the code of the kit (KP49) followed by the specific allergen code (see list).

ALLERGEN MIXES

| |
|--|
| gm1 Grass Mix (g1-g3-g4-g5-g6-g8) |
| gm2 Grass Mix (g2-g7-g10-g12-g13-g17) |
| wm1 Weed Mix (w1-w6-w7-w9-w10-w19) |
| wm2 Weed Mix (w1-w6-w7-w8-w9-w12) |
| mm1 Mold Mix (m1-m2-m3-m4-m6) |
| tm1 Tree Mix (t2-t5-t7-t8-t9-t11) |
| tm2 Tree Mix (t3-t4-t8-t15 early flowering) |
| tm3 Tree Mix (t1-t5-t7-t12-t14 late flowering) |
| dm1 Environment Mix (d1-d2-t2-e1-e2) |
| fm1 Infancy Food Mix (f1-f2-f3-f4-f14-f25-f75) |
| fm2 Fish Mix (f3-f23-f24-f80) |
| fm3 Starches Mix (f4-f6-f7-f8-f9) |
| fm4 Fish Mix (f3,f40,f41,f204,f254) |
| fm6 Nut Mix (f17-f18-f20-f36-f256) |
| fm7 Vegetable Mix (f12,f25,f31,f35,f85) |
| fm8 Vegetable Mix (f15,f47,f48,f215,f216) |
| fm11 Starches mix |
| em1 Feather Mix (e70,e85,e86) |

MITES

| |
|-----------------------------------|
| d1 Dermatophagoides pteronyssinus |
| d2 Dermatophagoides farinae |
| d3 Dermatophagoides microceras |
| d70 Acarus siro |
| d71 Lepidoglyphus destructor |
| d72 Tyrophagus putrescentiae |
| d73 Glycyphagus domesticus |
| d74 Euroglyphus maynei |

TREES

| |
|--|
| t1 Acer negundo (Box-elder) |
| t2 Alnus incana (Grey Alder) |
| t3 Betula verrucosa (Common Birch) |
| t4 Corylus avellana (Hazel) |
| t5 Fagus grandifolia (American Beech) |
| t6 Juniperus sabinoides (Mountain Juniper) |

| |
|---|
| t7 Quercus alba (Oak) |
| t8 Ulmus americana (Elm) |
| t9 Olea europaea (Olive) |
| t10 Juglans californica (Walnut) |
| t11 Platanus acerifolia (London Plane) |
| t12 Salix caprea (Willow) |
| t14 Populus deltoides (Cottonwood) |
| t15 Fraxinus americana (White Ash) |
| t16 Pinus strobus (White Pine) |
| t17 Cryptomeria japonica (Japanese Cedar) |
| t18 Eucalyptus spp. (Eucalyptus) |
| t19 Acacia longifolia |
| t20 Prosopis juliflora (Mesquite) |
| t21 Melaleuca leucadendron |
| t22 Carya pecan (Hickory) |
| t23 Cupressus sempervirens (Medit. Cypress) |
| t31 Cupressus arizonica (Arizona Cypress) |
| t70 Morus alba (Mulberry) |
| t203 Haesculus hippocastanus (Horse-chestnut) |
| t205 Sambucus nigra (elder) |
| t206 Castanea sativa (Chestnut) |
| t208 Tilia cordata (Lime) |
| t210 Ligustrum vulgare (Privet) |
| t214 Phoenix canariensis (Date) |

FOOD

| |
|-----------------|
| f1 Eggwhite |
| f2 Milk |
| f3 Fish (cod) |
| f4 Wheat |
| f5 Rye |
| f6 Barley |
| f7 Oat |
| f8 Maize |
| f9 Rice |
| f10 Sesame seed |
| f11 Buckwheat |

| |
|--------------------------------------|
| f12 Pea |
| f13 Peanut |
| f14 Soya bean |
| f15 White bean |
| f17 Hazel nut |
| f18 Brazil Nut |
| f20 Almond |
| f23 Crab |
| f24 Shrimp |
| f25 Tomato |
| f26 Pork |
| f27 Beef |
| f31 Carrot |
| f33 Orange |
| f35 Potato |
| f36 Coconut |
| f37 Blue Mussel |
| f40 Tuna |
| f41 Salmon |
| f44 Strawberry |
| f45 Saccharomyces cerevisiae (Yeast) |
| f47 Garlic |
| f48 Onion |
| f49 Apple |
| f53 Peach |
| f59 Octopus |
| f61 Sardine |
| f75 Egg yolk |
| f76 alpha-lactalbumin |
| f77 beta-lactoglobulin |
| f78 Casein |
| f79 Gluten |
| f80 Lobster |
| f81 Cheddar cheese |
| f82 Mould cheese |
| f83 Chicken |
| f84 Kiwi |

C.A.R.L.A.® - ALLERGENS LIST

| |
|---------------------------|
| 185 Celery |
| 186 Parsley |
| 187 Melon |
| 188 Mutton |
| 189 Mustard |
| 190 Malt |
| 191 Mango |
| 192 Banana |
| 194 Pear |
| 196 Avocado |
| 197 Cocoa |
| 1129 Sweet pepper (fruit) |
| 1131 Artichoke |
| 1202 Cashew |
| 1203 Pistachio |
| 1204 Trout |
| 1205 Herring |
| 1206 Mackerel |
| 1207 clam |
| 1208 Lemon |
| 1210 Pineapple |
| 1212 Mushrooms |
| 1213 Rabbit meat |
| 1214 Spinach |
| 1215 Lettuce |
| 1216 Cabbage |
| 1217 Brussels sprouts |
| 1218 Paprika |
| 1221 Coffee |
| 1225 pumpkin |
| 1232 Ovalbumin (*) |
| 1233 Ovomucoid |
| 1234 Vanilla |
| 1235 Lentil |
| 1237 Apricot |
| 1239 Water melon |
| 1242 Cherry |
| 1244 Cucumber |
| 1246 Guar gum |
| 1253 Pine seed |
| 1254 Plaice |
| 1255 plum (*) |
| 1256 Walnut |
| 1258 Squid |
| 1259 Grape |
| 1261 Asparagus |
| 1262 Aubergine |
| 1263 Green Pepper (spice) |
| 1269 Basil |
| 1276 Fennel |
| 1280 Black pepper |
| 1283 Oregano |
| 1284 Turkey |
| 1287 Red kidney bean |
| 1291 Cauliflower |
| 1297 Arabic gum |
| 1298 Sweet chestnut |
| 1309 Chick pea |
| 1314 Snail |
| 1321 Horse meat |

EPITHELIA - ANIMAL PROTEINS

| |
|--------------------------|
| e1 Cat epithelium |
| e2 Dog epithelium |
| e3 Horse dandruff |
| e4 Cow dandruff |
| e5 Dog dandruff |
| e6 Guinea Pig epithelium |
| e7 Pigeon droppings |

| |
|-----------------------------|
| e70 Goose feathers |
| e71 Mouse epithelium |
| e72 Mouse urine proteins |
| e73 Rat epithelium |
| e74 Rat urine proteins |
| e75 rat serum proteins |
| e76 mouse serum proteins |
| e78 Budgerigar feathers |
| e79 Budgerigar serum |
| e80 Goat epithelium |
| e81 Sheep epithel. and wool |
| e82 Rabbit epithelium |
| e83 Pig epithelium |
| e84 Hamster epithelium |
| e85 Chicken feathers |
| e86 Duck feathers |

WEEDS

| |
|---|
| w1 Ambrosia elatior (Short Ragweed) |
| w2 Ambrosia psilostachya (Western Ragweed) |
| w3 Ambrosia trifida (Giant Ragweed) |
| w4 Franseria acanthicarpa (False Ragweed) |
| w5 Artemisia absinthium (Wormwood Absinth) |
| w6 Artemisia vulgaris (Mugwort) |
| w7 Chrysanthemum leucanthemum (Daisy, Ox-Eye) |
| w8 Taraxacum vulgare (Dandelion) |
| w9 Plantago lanceolata (Plantain, English) |
| w10 Chenopodium album (Lamb's quarters) |
| w11 Salvia kali (Saltwort, prickly) |
| w12 Solidago virgaurea (Golden rod) |
| w13 Xanthium commune (Cocklebur) |
| w14 Amaranthus retroflexus (Pigweed, common) |
| w15 Atriplex lentiformis (Lanolate, Scale) |
| w16 Iva ciliata (Rough Marshelder) |
| w17 Kochia scoparia (Firebush, Kockia) |
| w18 Rumex acetosella (Sheepsorrel, Lumex) |
| w19 Parietaria officinalis (Pellitory, wall, erect) |
| w20 Urtica dioica (Nettle) |
| w21 Parietaria judaica (Pellitory, wall) |
| w204 Sunflower |
| w206 Matricaria camomilla |
| w210 Beta vulgaris (Beetroot) |

GRASSES

| |
|---|
| g1 Anihoxanthum odoratum (Sweet Vernal grass) |
| g2 Cynodon dactylon (Bermuda grass) |
| g3 Dactylis glomerata (Cocks foot) |
| g4 Festuca elatior (Meadow Fescue) |
| g5 Lolium perenne (Rye grass) |
| g6 Phleum pratense (Timothy) |
| g7 Phragmites communis (Reed, common) |
| g8 Poa pratensis (Blue grass, Kentucky) |
| g9 Agrostis stolonifera (Redtop, Bentgrass) |
| g10 Sorghum halepense (Johnson grass) |
| g11 Bromus inermis (Brome grass) |
| g12 Secale cereale (Rye, Cultivated Rye) |
| g13 Holcus lanatus (Velvet grass) |
| g14 Avena sativa (Oat, cultivated) |
| g15 Triticum sativum (Wheat, cultivated) |
| g16 Alopecurus pratensis (Foxtail, meadow) |
| g17 Paspalum notatum (Grass, Bahia) |
| g70 Elymus triticoides (Bearless ryegrass wild) |
| g71 Phalaris anundinacea (Canary grass) |

DRUGS

| |
|-------------------|
| c1 Penicillium G |
| c2 Penicillium V |
| c70 Suine Insulin |

| |
|----------------------|
| c71 Bovine Insulin |
| c73 Human Insulin |
| c201 Cephalosporin C |
| c202 Succinylcholine |
| c203 Ampicillin |
| c204 Amoxycillin |
| c206 ACTH |

MOLDS and YEASTS

| |
|-----------------------------------|
| m1 Penicillium notatum |
| m2 Cladosporium herbarum |
| m3 Aspergillus fumigatus |
| m4 Mucor racemosus |
| m5 Candida albicans |
| m6 Alternaria alternata (tenella) |
| m7 Botrytis cinerea |
| m8 Helminthosporium halodes |
| m9 Fusarium moniliforme |
| m10 Stemphylium botryosum |
| m11 Rhizopus nigricans |
| m12 Aerobasidium pullulans |
| m13 Phoma betae |
| m14 Epicoccum purpurascens |
| m15 Tricoderma viridae |
| m16 Curvularia lunata |
| m17 Aspergillus amstelodami |
| m28 Penicillium expansum |
| m33 Aspergillus niger |
| m51 Aspergillus nidulans |
| m59 Penicillium digitatum |
| m205 Trichophyton rubrum |

HOUSE DUSTS

| |
|----------------------------|
| h1 Green Labs, Inc. |
| h2 Hollister - Sizer Labs. |

VENOMS

| |
|--|
| v1 Apis mellifera |
| v2 Dolichovespula maculata |
| v3 Vespula species |
| v4 Polistes spp. |
| v5 Dolichovespula arenaria (Yellow Hornet) |
| v6 Blattella germanica |
| v70 Solenopsis invicta (ant) |
| v71 Aedes communis (mosquito) |
| v75 Vespa crabro (European Hornet) |
| v204 Tabanus spp. |

PROFESSIONALS

| |
|---------------------------|
| k16 Flaxseed |
| k70 Green coffee |
| k74 Silk |
| k75 Isocyanate TDI |
| k76 Isocyanate MDI |
| k77 Isocyanate HDI |
| k78 Ethylene oxide |
| k79 Phthalic Anhydride |
| k82 Latex |
| k83 Cotton seeds |
| k85 Chloramine T |
| k86 Trimellitic Anhydride |
| K87 Alpha amylase |
| k201 Papain |
| k202 Bromelain/Bromelin |
| k212 Woods sawdust |

PARASITES

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|-------------------------|
| p1 Ascaris lumbricoides |
| P4 Anisakis simplex |
| (*) soon available |

OTHER RADIM ALLERGY PRODUCTS

| PRODUCT NAME | CODE | TESTS |
|---|---------------|--------------|
| Specific IgE RAB® SYSTEM RIA method for the quantitative detection of specific IgE in human serum or plasma. Coated Bead | | |
| RAB® - ANTI IgE 125 I | KP27 | 100 |
| RAB® - Standard set Tubebeads | KP28TB | 7 |
| RAB® ALLERGEN TUBEADS | KP39 | 30/10 |
| TOTAL IgE IEMA WELL ELISA method for the quantitative detection of Total IgE in human serum or plasma | KP21IW | 96 |
| TOTAL IgE IRMA CT IRMA method for the quantitative detection of total IgE in human serum or plasma | KP21CT | 100 |
| CELIAC DISEASE | | |
| GLIADIN IgA EIA WELL ELISA method for quantitative detection of IgA anti-Gliadin antibodies in human serum or plasma | K9GA | 96 |
| GLIADIN IgG EIA WELL ELISA method for quantitative detection of IgG anti-Gliadin antibodies in human serum or plasma | K9GG | 96 |
| TRANSGLUTAMINASE IgA ELISA method for quantitative detection of Tissue Transglutaminase IgA antibodies in human serum or plasma | K10TA | 96 |
| TRANSGLUTAMINASE IgG ELISA method for quantitative detection of Tissue Transglutaminase IgG antibodies in human serum or plasma | K10TG | 96 |



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