

# ALLERGY DIAGNOSTICS in vitro

IN EVERY LABORATORY  
FOR EVERY PATIENT



2017



Allergy  
diagnostics



Infection  
diagnostics



Tumor  
markers



Hormonal  
diagnostics



Molecular-genetic  
diagnostics

## CONTENTS

ABOUT COMPANY	1
ALLERGY DIAGNOSTICS IN VITRO	2
Total IgE determination	2
Characteristics of the “AllergoEIA-total IgE”	2
Allergen-specific IgE determination	3
Characteristics of the “AllergoELISA-specific IgE”	4
Principle of the assay	5
Allergens, allergen mixes, allergen components	6-7
AUTOMATION OF ALLERGOLOGICAL RESEARCHES	8-9
BIOTINYLATED ALLERGENS, ALLERGEN MIXES, ALLERGEN COMPONENTS LIST	10
Allergen components	10
Allergens mixes	10-14
Food allergens	14-18
Fruits, vegetables and berries	14-15
Seed, legumes, nuts	15-16
Meat	16
Eggs and poultry	16
Milk, dairy products	16-17
Fish and seafood	17
Spices	17-18
Mushrooms, tea, coffee etc.	18
Drugs	18-19
Local anesthetics	18
Analgesics and nsoids	18
Antibiotics	19
Antiinfectives	19
Hormonal treatments	19
Others	19
Epithelia	19-20
Mites	20
Moulds	20
Dusts	21
Insect – venoms	21
Grasses	21-22
Weeds	22
Trees	22-23
Occupational	23-24
Parasites	24
Other allergens	24

## ABOUT COMPANY

Saint-Petersburg Company “Alkor Bio” was founded in 1992 and at the moment is the largest biotechnological holding in the north-west of Russian Federation. Today “Alkor Bio” is one of the leading native manufacturers of reagent kits for laboratory diagnostic.

The high quality of the technological process is confirmed by the ISO 9001:2008 and ISO 13485:2003. It proves the compliance of the Alkor Bio’s quality management system with the requirements for the company that manufactures medical goods.

One of the main activities of the company is development and production of reagent kits for allergy diagnostics. Laboratory of allergology has developed a kit for quantitative determination of specific IgE in a human serum by new method – capture-ELISA – «AllergoEIA-specific IgE» and biotinylated allergens for diagnostics with the kit. The product line consists of allergens, allergen mixes and allergen components. Today it is about 700 names.

Following the main trends in laboratory diagnostics sphere, “Alkor Bio” offers its customers the latest developments and high-quality and demanded products.

The products for allergy diagnostics have European quality mark – CE-mark, are registered and certified by Federal Service for the Supervision of Public Health and Social Development of Russian Federation.



## IN VITRO ALLERGY DIAGNOSTICS

High level of IgE antibodies to individual allergens is an important prognostic parameter that indicates latent sensitization with a high risk of allergy. Thus, the determination of the specific IgE concentration in human serum is an important part of the diagnostic algorithm, along with clinical examination and in vivo tests.

Advantages of in vitro allergy diagnostics:

- Safety for a patient;
- Contraindications are absence;
- Diagnostics can be conducted at any age, including early childhood, disease exacerbation periods, high degree of sensitization conditions;
- The detection of reaction to a large number of allergens per one test;
- Influence of changed skin reactions is absence;
- Researches can be conducted against the background of administered therapy.

### TOTAL IMMUNOGLOBULIN E DETERMINATION

The main indications for determination of total immunoglobulin E concentration:

1. The first allergy diagnostics;
2. Differential diagnostics of allergic diseases in order to differentiate them from a great number of pathologies with similar clinical manifestations (chronic rhinitis and dermatitis, frequent respiratory tract diseases, etc.);
3. Diagnostics of helminthes;
4. Immune diagnostics;
5. Diagnosis of hyper-IgE-syndrome and IgE-myeloma.

#### «AllergoEIA-Total IgE»

№ 300-19

"AllergoEIA-Total IgE" kit is intended for the quantitative determination of immunoglobulin E (IgE) in human serum by ELISA-method ("sandwich" type).

#### Kit's characteristics

Tests number (including Calibrators and control serum)	96 (till 88 samples)
One stage of incubation	90 min., 37°C
Analytical Sensitivity, IU/mL	2,3
Specificity	No cross reaction of monoclonal antibodies to IgE with IgG, IgM, IgA
Precision: Intra Assa Variation, %	not more than 8%
Range of evaluated concentrations, IU/mL	0-500
Calibrations, IU/mL	0; 10; 50; 100; 250; 500. Certification of the second international reference drug WHO to the total IgE 75/502
Controls	With known amount of IgE substance
Sample size, µl	20
Shelf-life, month	12
CE-mark	

### ALLERGEN-SPECIFIC IMMUNOGLOBULIN E DETERMINATION

Main indications to the determination of specific immunoglobulin E concentration:

1. Demand for specification of a cause-significant allergen in all cases, especially in the context of obtaining controversial/equivocal results of skin testing;
2. Differential diagnostics of allergic and non-allergic (pseudoallergic) diseases;
3. Difficulty or inability to conduct in vivo tests:
  - Tender age of early childhood;
  - Disease exacerbation patients with high degree of sensitization;
  - The moment after severe allergic reaction exacerbation of the main condition;
  - The impossibility to cancel antihistamines, hormones and other drugs;
  - Changed skin reaction;
  - Research with large number of allergens at the same time;
  - Decompensate states of heart, liver, kidney and blood system diseases.
4. Detection of latent (subclinical) sensitization;
5. Monitoring of IgE concentration in allergen-specific immunotherapy.

#### «AllergoELISA-specific IgE»

№ 300-29

The new method for quantitative determination of specific IgE – capture-ELISA is implemented in the "AllergoELISA-specific IgE kit". The test system contains a die with adsorbed specific to IgE antibodies and liquid biotinylated allergens. These characteristics ensure a high biological accessibility for connection with allergen-specific IgE in a human serum. Moreover it gives flexibility and an ability to format a wide assortment of allergens to the analysis. Also due to the features of the kit a number of nonspecific reactions with Ig other classes decreases. The obtained results can be presented in IU/ml or classes (from 0 to 5). Any vertical plan-table photometer can be used for the analyses. The design of the kit also gives the ability for the analysis to be made on the automatic EIA-analyzer "Alisei Q.S."

## Kit's characteristics

Tests number (including Calibrators and control serum)	96 (till 80 samples)
Two stages of incubation	60 min., 37°C + 30 min. 37°C
Analytical Sensitivity, IU/mL	0,15
Specificity	No cross reaction of monoclonal antibodies to IgE with IgG, IgM, IgA
Precision: Intra Assa Variation, %	not more than 8%
Range of evaluated concentrations, IU/mL	0-100
Calibrations, IU/mL	0; 0,5; 1; 5; 25 & 100. Certification of the second international reference drug WHO to the total IgE 75/502
Controls	With known amount of IgE substance
Sample size, µl	50
Accounting for results	Quantitative in IU/ml or classes (from 0 to 5)
Shelf-life, month	18
CE-mark	

For the research you need "AllergoELISA-specific IgE" kit and any the following products:

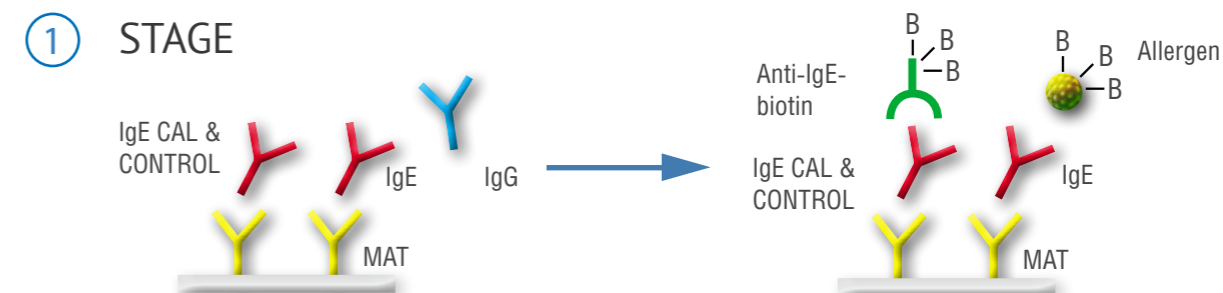
- Biotinylated allergens (№ 300-30) from page 10;
- Allergen mixes (№ 300-33) from page 10;
- Allergen components (№ 300-34) page 14.

Allergens, allergen mixes and allergen components by "Alkor Bio" production are used with "Allergo-ELISA-specific IgE" kit. Today the catalogue includes about 700 names.



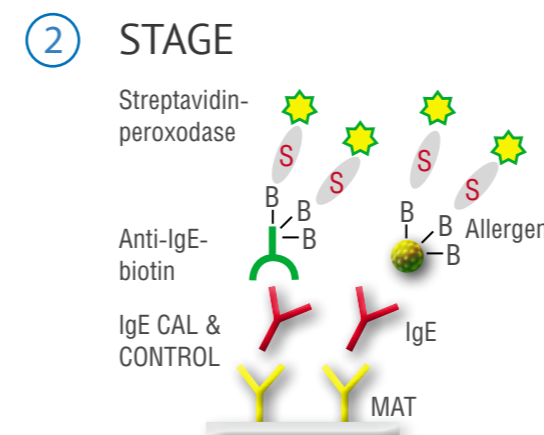
## Principle of the assay

The kit allows quantitative detection of specific IgE in human serum by means of a two-step «capture» assay.

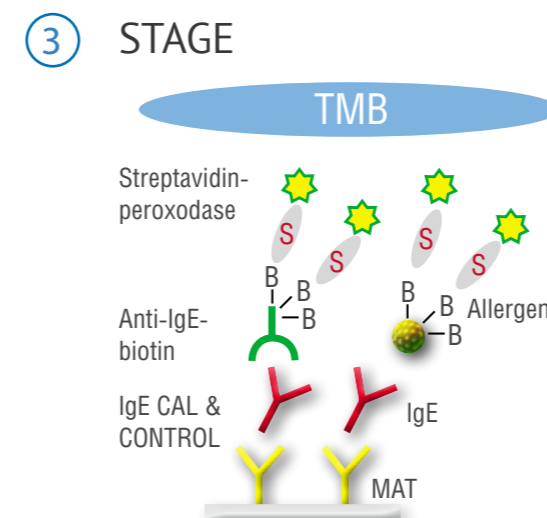


In the first step, samples are incubated with a biotinylated allergen solution in a monoclonal anti-human IgE (MAT) coated microplate. During this first incubation, the sample IgE antibodies are bound to the solid phase. At the same time, the biotinylated allergen is bound to the sample IgE, specific for that allergen, if present.

In order to quantify specific IgE, a calibration curve with known amounts of total IgE antibodies is incubated in the same coated microplate with a biotinylated anti-IgE antibody. The second incubation with the enzyme conjugate (streptavidin-HRP) will be the same for both calibrators and samples. In comparing the sample absorbances with the calibration curve, it is possible to express the sample concentrations of specific IgE in terms of International units of total IgE.



After removing the unbound material by an aspiration/washing cycle, the enzyme conjugate (streptavidin-HRP) is added to the wells, where it binds to the biotinylated allergen.



450 nm  
405 nm  
620 nm

After a further aspiration/washing cycle, the enzyme activity bound to the solid phase will be directly proportional to the concentration of allergen-specific IgE present in calibrators and samples and evidenced by incubating the wells with a Chromogen solution (Tetramethylbenzidine, TMB) in a Substrate-Buffer. Colorimetric reading will be performed by using a spectrophotometer at 450 and 405 nm.

**Biotinylated allergens**

№ 300-30

**Allergens mixes**

№ 300-33

**Allergen components (recombinant and native)**

№ 300-34

Allergens, allergen mixes and allergen components by Alkor Bio production are intended for use with "AllergoELISA-specific IgE" kit. Today total number of allergens, allergen mixes and allergy components is about 700.

*Advantages of the liquid form of the biotinylated allergens:*

- Availability of allergens for binding to IgE antibodies and reliable detection of allergen-specific IgE;
- Ability to select allergens for testing according to the laboratory needs.

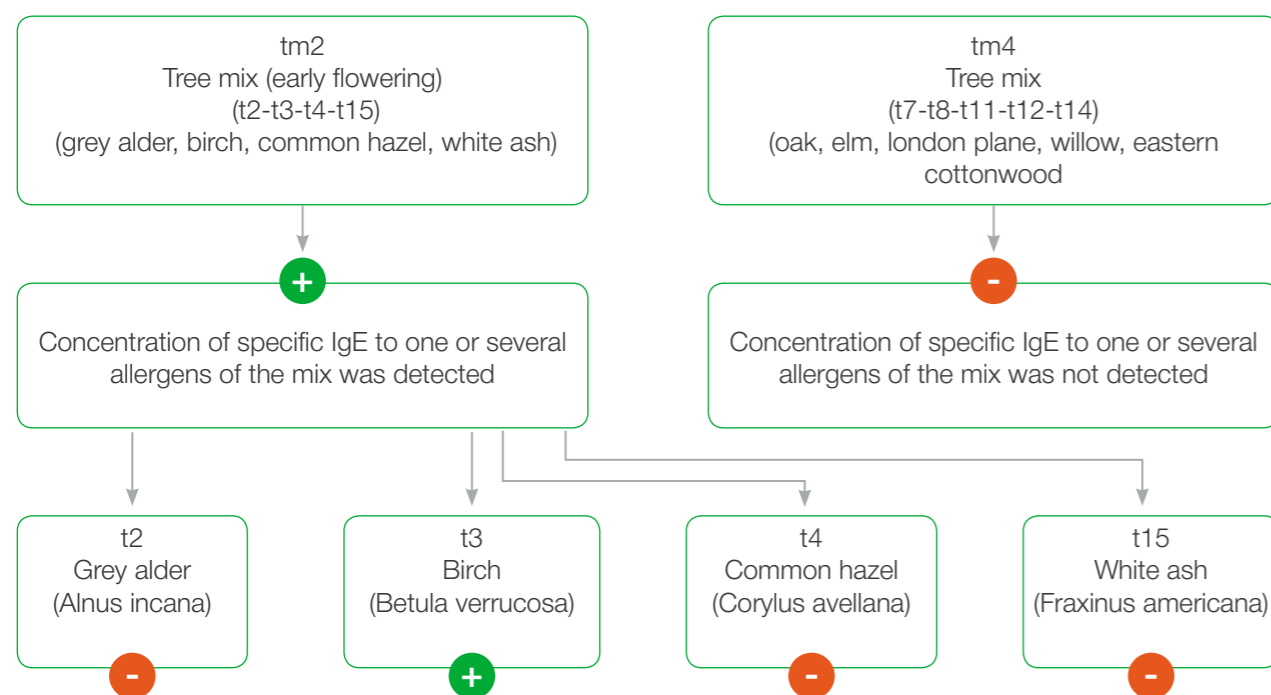
1 Vial, tests number	26
Free choice of allergens	
Shelf-life, month	18

**Use of allergens** (№ 300-30) detects a causally significant allergen.

**Use of allergens mixes** (№ 300-33) really narrows the search of a causally significant allergen and makes research more available.

*An example of allergen mixes usage:*

There is a patient presented with allergic reaction to undetermined type of trees. In order to detect a cause-significant allergen among a great variety of possible allergens, you should use tree allergen mixes. In case of a positive reaction/response to the analyzed mix, additional tests shall be performed for each individual allergen contained in the mix.



"Alkor Bio" is the only Russian company that is developed and launched allergy components to the mass use in clinical practice of in vitro allergy diagnostics. Allergy components are used to more detailed evaluation of the patient's sensibility profile, and display the allergy diagnostics to a new level.

**Allergen components** (№ 300-34) are used to:

- Forecast the effectiveness of ASIT;
- Control the ASIT;
- Determinate a cross-reaction to different allergens;
- Forecast the risk and degree of clinical manifestations of allergy reactions.

*An example of allergen components usage. "Birch tree (Betula verrucosa) allergen" effectiveness.* Reagents to immunotherapy are standardized on the basis of major components, that's why ASIT is suitable for mono sensitized patient.

Major component – Bet v1.

Minor components with cross reaction – Bet v2, Bet v 4.

ASIT effectiveness	Bet v 1 «+»	Bet v 1 «+»	Bet v 1 «-»
	Bet v 2, 4 «-»	Bet v 2, 4 «+»	Bet v 2, 4 «+»/ «-»
	High	Middle	Low

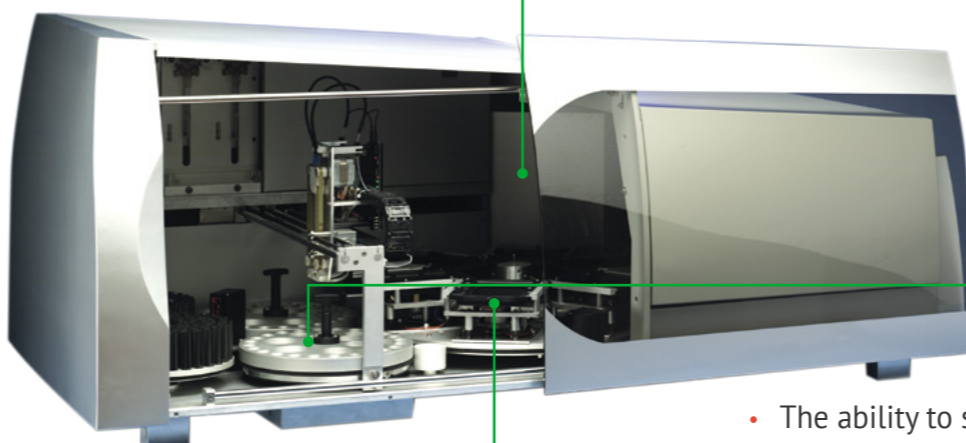


## AUTOMATION OF ALLERGOLOGICAL RESEARCHES

Alisei Q.S. – is a high-speed completely automatic analyzer which allows performing allergy diagnostics and the other immunoassays in 96-well format. Every year in Russian and countries of CIS and Europe more that 1 million allergological researches are conducted with Alkor Bio's reagent kits and analyzer Alisei Q.S.

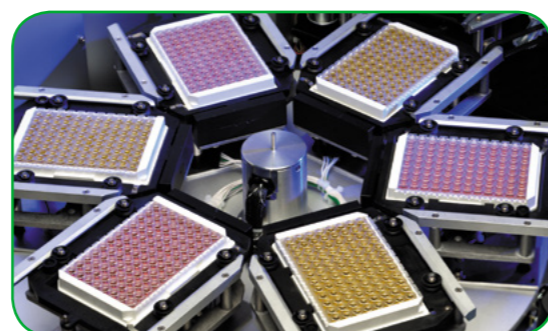
Determination of a large number of specific IgE to different allergens for one patient is a feature of allergodiagnosics. Highly labor-intensive process involved in testing and year-to-year growth of population allergization increases the need for automation of laboratory allergy diagnostics.

**Alisei Q.S.** makes allergy diagnostics more comfortable and productive.



### 1 Technical advantages of Alisei Q.S. to optimize the research

- Placing up to 6 microplates, up to 2 techniques on a single microplate;
- Independent shaking mode and temperature regime for each microplate (30-45 °C or RT) enables to combine several methods in one session;
- Cooling of reagents on analyzer's board maintains their stability throughout the day;
- Possibility of using primary and secondary tubes;
- No interchangeable tips;
- No risk of contamination due to non-wettable material of needles intended for injection of samples and reagents;
- Software program enables saving data on calibration curves and performing a 2-points recalibration, thus increasing economic efficiency of testing;
- No need for operator presence after equipment start;
- Automatic detection of liquid level and detection of clots.



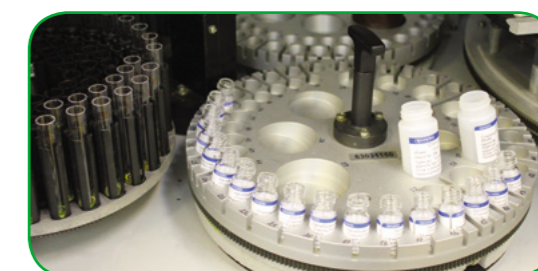
### 2 High performance and ease of use – work with pleasure!

- Optimization of analysis time – results in 1.5 hours;
- Maximum numbers of samples – 240;
- Up to 540 definitions;
- High speed of serum application – 700 samples in hour, reagents – 1500 wells in hour;
- Software in English;
- Connecting to the laboratory information system (LIS) is easy;
- Technical support and help of the Alkor Bio service department.



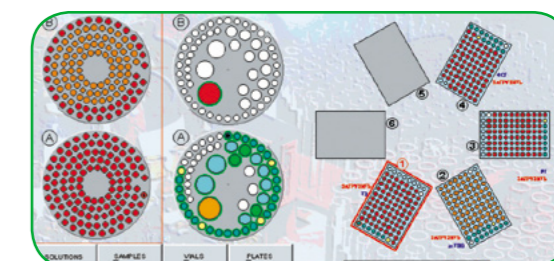
### 3 A personalized approach to the examination of every patient is easier with Alisei Q.S.!

- The ability to select an individual list of analyzed allergens for each patient individually;
- About 700 names of allergens, mixes of allergens and allergen components;
- Forming a personal response with the possibility to print a file for each patient;
- The patient's card is stored in the computer's memory; it is convenient for monitoring the dynamics of the indicators;
- The possibility of studying specific IgE for 81 allergens per session;
- Quantitative interpretation of the results in concentrations of IU/mL and in grades 0-5.



### 4 Confidence in the result – trust Alisei Q.S.

- The barcode reader allows automatic reading of information from samples and reagents and protects against possible user errors;
- Control of analysis at each stage;
- Conducting of immediate intra-laboratory control – a control-cards-forming program;
- The coefficient of variation is less than 3%;
- High resolving power of the spectrophotometer: measuring range for bichromatism – from 0 to 9 AU, with monochromatism – from 0 to 3 AU;
- High correlation of results with immunofluorescent and chemiluminescent methods.



## BIOTINYLATED ALLERGENS, ALLERGEN MIXES, ALLERGEN COMPONENTS LIST



### Allergen components (recombinant & native)

**NEW** № 300-34

f68	nGal d 1 Ovomuroid
f67	nGal d 2 Ovalbumin
f69	nGal d 3 Conalbumin (ovotransferrin)
f311	rDau c 1 Carrot
f352	rAra h 8 Peanut
f353	rGly m 4 Soya bean
f417	rApi g 1 Celery
f434	rMal d 1 Apple
t215	rBet v 1 Birch (Betula verrucosa)
t216	rBet v 2 Birch (Betula verrucosa)
t220	rBet v 4 Birch (Betula verrucosa)
g205	rPhl p1 Timothy (Phleum pratense)
g215	rPhl p 5 Timothy (Phleum pratense)
g210	rPhl p 7 Timothy (Phleum pratense)
g212	rPhl p 12 Timothy (Phleum pratense)
w211	rPar j 2 Wall pellitory (Parietaria judaica)
w231	nArt v 1 Mugwort (Artemisia vulgaris)
w233	nArt v 3 Mugwort (Artemisia vulgaris)
e204	nBos d 6 BSA (Bovine serum albumin)
e220	nFel d 2 Cat serum albumin
e221	nCan f 3 Dog serum albumin



### Allergens mixes

№ 300-33

fm1	Infant food mix (f1-f2-f3-f4-f14-f25-f75) (egg white, cow milk, codfish, wheat flour, soya bean, tomato, egg yolk)
fm2	Food mix (seafood) (f3-f23-f24-f37) (codfish, crab, shrimp, mussel)
fm3	Food mix (cereals) (f4-f6-f7-f8-f9 ) (wheat, barley, oats, maize, rice)
fm4	Food mix (fish) (f3-f41-f205-f206-f254) (codfish, salmon, herring, mackerel, plaice)

fm5	Food mix (paediatric) (f1-f2-f3-f4-f13-f14) (egg white, cow milk, codfish, wheat, peanut, soya bean)
fm6	Food mix (nuts) (f17-f18-f20-f36-f256) (hazelnut, brazil nut, almond, coconut, walnut)
fm7	Food mix (vegetables: f12-f15-f25-f31-f35) (pea, white bean, tomato, carrot, potato)
fm9	Fruit mix (f20-f84-f87-f92-f259) (almond, kiwi, melon, banana, grape)
fm10	Food mix (f4-f5-f7-f79) (wheat, rye, oats, gluten)
fm11	Food mix (cereals) (f4-f7-f8-f10-f11) (wheat, oats, maize, sesame seed, buckwheat)
fm14	Food mix (f25-f214-f216-f218) (tomato, spinach, cabbage, sweet pepper)
fm15	Food mix (f33-f49-f92-f95) (orange, apple, banana, peach)
fm16	Food mix (f44-f94-f208-f210) (strawberry, pear, lemon, pineapple)
fm17	Fruit mix (f49-f92-f94-f95) (apple, banana, pear, peach)
fm18	Food mix (citrus) (f33-f208-f209-f302) (orange, lemon, grapefruit, mandarin)
fm19	Food mix (f26-f27-f88) (pork, beef, mutton)
fm20	Food mix (f57-f83-f284) (duck meat, chicken meat, turkey)
fm21	Fruit mix (f84-f87-f92-f95-f210) (kiwi, melon, banana, peach, pineapple)
fm22	Food mix (cheese) (f70-f81-f82-f150-f198) (swiss cheese, cheese cheddar type, cheese mould type, edam cheese, gouda cheese)
fm23	Food mix (meat) (f26-f27-f83-f284) (pork, beef, chicken meat, turkey)
fm24	Food mix (seafood) (f3-f24-f37-f40-f41) (codfish, shrimp, mussel, tuna, salmon)
fm61	Food mix (nuts) (f13-f17-f20-f36-f256) (peanut, hazelnut, almond, coconut, walnut)
fm70	Spice mix (f272-f273-f274-f275) (tarragon, thyme, majoran, lovage)
fm71	Spice mix (f265-f267-f268-f282) (caraway, cardamon, cloves, nutmeg)
fm72	Spice mix (f219-f269-f270-f271) (fennel seed, basil, ginger, anise)
fm101	Food mix (f1-f2-f4-f5-f8-f75-f76-f77-f78-f79-f81) (egg white, cow milk, wheat, rye, maize, egg yolk, alpha-lactalbumin, beta-lactoglobulin, casein, gluten, cheese Cheddar type)

fm102	Food mix (f13-f14-f256-f17-f26-f45-f48-f83) (peanut, soya bean, walnut, hazelnut, pork, yeast, onion, chicken meat)
fm103	Food mix (f20-f25-f33-f44-f84-f87-f92-f95) (almond, tomato, strawberry, kiwi, melon, banana, peach)
fm104	Stone fruits mix (f242-f95-f237-f255) (cherry, peach, apricot, plum)
fm105	Food mix (f10-f12-f36-f84-f85-f93-f105-f221-f300) (sesame seed, pea, coconut, kiwi, celery, cocoa, chocolate, coffee, goat milk)
dam	Allerscreen inhalants mix (d1-d2-e1-e2-e3-g2-g8-m3-m6-t4-t9-t11-w1-w6-w9-w21) (Dermatophagoides pteronyssinus, Dermatophagoides farinae, cat epithelium, dog epithelium, horse dander, bermuda grass, common meadow grass, Aspergillus fumigatus, Alternaria alternata (tenuis), common hazel, olive, london plane, common ragweed, mugwort, ribwort plantain, wall pellitory)
dam1	Inhalants mix (d1-e1-e5-g6-g12-m2-t3-w6) (Dermatophagoides pteronyssinus, cat epithelium, dog dander, timothy grass, cultivated rye, Cladosporium herbarum, birch, mugwort)
dm1	Environment mix (d1-d2-e1-e2) (Dermatophagoides pteronyssinus, Dermatophagoides farinae, cat epithelium, dog epithelium)
dm2	Mite mix (d1-d2-d3-d70-d71-d72-d73-d74) (Dermatophagoides pteronyssinus, Dermatophagoides farina, Dermatophagoides microceras, Acarus siro, Lepidoglyphus destructor, Tyrophagus putrescentiae, Glycyphagus domesticus, Euroglyphus maynei)
drm2	Perennial mix (d2-e1-e3-e5-m6) (Dermatophagoides farinae, cat epithelium, horse dander, dog dander, Alternaria alternata (tenuis))
drm5	Indoor mix (d1-e1-m3-i6) (Dermatophagoides pteronyssinus, cat epithelium, Aspergillus fumigatus, cockroach)
mm1	Mould mix (m1-m2-m3-m4-m6) (Penicillium notatum, Cladosporium herbarum, Aspergillus fumigatus, Mucor racemosus, Alternaria alternata (tenuis))
mm2	Mould mix (m1-m2-m3-m5-m6-m8) (Penicillium notatum, Cladosporium herbarum, Aspergillus fumigatus, Candida albicans, Alternaria alternata (tenuis), Helminthosporium halodes)
hm1	House dust mix (h1-d1-d2-i6) (house dust, Dermatophagoides pteronyssinus, Dermatophagoides farinae, cockroach)
hm100	House dust mix (m1-m3-m5-m6-d1-d2-h1) (Penicillium notatum, Aspergillus fumigatus, Candida albicans, Alternaria alternata (tenuis), Dermatophagoides pteronyssinus, Dermatophagoides farinae, house dust)
em1	Feather mix (e70-e85-e86-e89) (goose feathers, chicken feathers, duck feathers, turkey feathers)
em2	Epithelia mix (e1-e5-e6-e87-e88) (cat epithelium, dog dander, guinea pig epithelium, rat epith.+serum-urine prot., mouse epith.+serum-urine prot.)

em4	Epithelia mix (e1-e2-e3-e4) (cat epithelium, dog epithelium, horse dander, cow dander)
em70	Rodent mix (e6-e82-e84-e87-e88) (guinea pig epithelium, rabbit epithelium, hamster epithelium, rat epith.+serum-urine prot., mouse epith.+serum-urine prot.)
em72	Domestic bird feathers (e78-e93-e201-e213) (budgerigar feathers, parakeet feathers, canarian feathers, parrot feathers)
em100	Epithelia mix (e1-e2-e3-e4-e5-e70-e81-e85-e86-e100) (cat epithelium, dog epithelium, horse dander, cow dander, dog dander, goose feathers, sheep epithelium, chicken feathers, duck feathers, cat dander)
im100	Insect-venom mix (i1-i3-i6-i75) (honey bee, common wasp (yellow jacket), cockroach, european hornet)
gm1	Grass mix (g3-g4-g5-g6-g8) (cocksfoot, meadow fescue, rye grass, timothy, meadow grass)
gm2	Grass mix (early flowering) (g2-g5-g6-g8-g10-g17) (bermuda grass, rye grass, timothy grass, common meadow grass, johnson grass, bahia grass)
gm3	Grass mix (late flowering) (g1-g5-g6-g12-g13) (sweet vernall grass, rye grass, timothy grass, cultivated rye, velvet grass)
gm100	Grass mix (g2-g3-g5-g6-g8-g10-g12-g13-g14-g15-g16) (bermuda grass, cocksfoot, rye grass, timothy grass, common meadow grass, johnson grass, cultivated rye, velvet grass, cultivated oat, cultivated wheat, meadow foxtail)
tm1	Tree mix (t1-t3-t7-t8-t9-t10) (maple ash, birch, oak, elm, olive, walnut)
tm2	Tree mix (early flowering) (t2-t3-t4-t15) (grey alder, birch, common hazel, white ash)
tm3	Tree mix (late flowering) (t1-t7-t12-t14) (maple ash, oak, willow, cottonwood)
tm4	Tree mix (t7-t8-t11-t12-t14) (oak, elm, london plane, willow, eastern cottonwood)
tm5	Tree mix (early flowering) (t2-t4-t8-t12-t14) (grey alder, common hazel, elm, willow, eastern cottonwood)
tm6	Tree mix (late flowering) (t1-t3-t5-t7-t10) (maple ash, birch, american beech, oak, walnut)
tm100	Tree mix (t1-t2-t3-t4-t7-t11-t12-t14) (maple ash, grey alder, birch, common hazel, oak, london plane, willow, eastern cottonwood)
wrm1	Seasonal mix (g6-w6-w9-w21-t3) (timothy grass, mugwort, ribwort plantain, wall pellitory, birch)
wm1	Weed mix (w1-w6-w7-w10-w19) (common ragweed, mugwort, ox eye daisy, lamb's quarters, wall pellitory)
wm2	Weed mix (w1-w6-w7-w8-w9) (common ragweed, mugwort, ox eye daisy, dandelion, ribwort plantain)



wm3	Weed mix (w6-w9-w10-w12-w20) (mugwort, ribwort plantain, goosefoot (lamb`s quarters), golden rod, common nettle)
wm4	Weed mix (w1-w6-w10-w11) (common ragweed, mugwort, goosefoot (lamb`s quarters), salwort)
wm5	Weed mix (w1-w6-w7-w8-w12) (common ragweed, mugwort, ox eye daisy (marguerite), dandelion, golden rod)
wm6	Weed mix (w9-w10-w11-w18) (ribwort plantain, goosefoot (lamb`s quarters), salwort, sheep sorrel)
wm7	Weed mix (w1-w9-w10-w12-w20) (common ragweed, Ribwort plantain, Goosefoot, Golden rod, Common nettle)
wm100	Weed mix (w1-w6-w9-w12-w14) (common ragweed, mugwort, ribwort plantain, golden rod, common pigweed)
om1	Wood mix (o32, o33, o36, o49) (beech, oak, pine, elm)

## Biotinylated allergens Alkor Bio

№ 300-30



### Food

#### Fruits, Vegetables & Berries

f49	Apple	f289	Date
f237	Apricot	f262	Eggplant/aubergine
f172	Artichoke	f296	Feijoa
f261	Asparagus	f276	Fennel
f96	Avocado	f328	Fig
f92	Banana	f47	Garlic
f319	Beet	f327	Gooseberry
f211	Blackberry	f259	Grape
f321	Blackcurrant	f209	Grapefruit
f288	Blueberry	f292	Guava
f260	Broccoli	f102	Horseradish
f217	Brussel sprout	f257	Iceberg (crisphead) lettuce
f216	Cabbage	f84	Kiwi
f31	Carrot	f170	Kohlrabi (cabbage turnip)
f291	Cauliflower	f310	Kumquat (cumquat)
f242	Cherry	f66	Leek
f227	Chinese green radish	f208	Lemon
f318	Cilantro	f285	Lemon balm (Melissa)
f182	Cowberry	f215	Lettuce
f341	Cranberry	f306	Lime
f244	Cucumber	f348	Lychee

f91	Mango
f236	Mangold (leaf beet)
f87	Melon
f126	Mint
f228	Napa cabbage
f343	Nectarine
f342	Olive
f48	Onion
f33	Orange
f293	Papaya
f294	Passionfruit
f95	Peach
f94	Pear
f301	Persimmon (Kaki)
f347	Physalis (cape gooseberry)
f210	Pineapple
f298	Pitahaya (pitaya)
f255	Plum
f295	Pomegranate
f305	Pomelo
f340	Rose hips
f35	Potato
f238	Potato starch (amylum)
f225	Pumpkin

f339	Quince
f119	Radicchio (Italian chicory)
f111	Raspberry
f112	Raisin
f116	Red cabbage
f322	Red currant
f226	Red radish
f171	Ruccola
f115	Sauerkraut
f65	Shallot
f316	Sorrel
f214	Spinach
f44	Strawberry
f73	Sweet cherry
f218	Sweet pepper
f104	Sweet potato
f302	Tangerine
f25	Tomato
f229	Turnip
f329	Watermelon
f320	White currant
f156	Witloof
f113	Zucchini

#### Seeds, legumes, nuts

f20	Almond	f345	Macadamia nut
f6	Barley	f8	Maize
f190	Bran (Wheat)	f55	Millet
f18	Brazil nut	f7	Oats
f11	Buckwheat	f12	Pea
f202	Cashew nut	f13	Peanut
f299	Chestnut	f201	Pecan nut
f309	Chick pea	f253	Pine-seeds
f36	Coconut	f203	Pistachio nut
f315	French bean	f224	Poppy (seed)
f233	Gliadin	f125	Pumpkin seed
f79	Gluten	f287	Red bean
f17	Hazelnut	f9	Rice
f235	Lentil	f5	Rye
f98	Linseed	f146	Semolina

f10	Sesame seed
f14	Soya bean
f124	Spelt
f384	Sunflower seed

f256	Walnut
f4	Wheat
f15	White bean

### Meat

f27	Beef
f241	Beef liver
f58	Goose meat
f184	Horse meat

f88	Mutton
f26	Pork
f213	Rabbit meat
f165	Veal

### Eggs & Poultry

f83	Chicken meat
f57	Duck meat
f1	Egg white
f75	Egg yolk

f193	Quail egg
f192	Quail meat
f284	Turkey
f245	Whole egg

### Milk, dairy products

f76	α-lactalbumin
f77	β-lactoglobulin
f158	Bryndza cheese
f151	Camembert cheese
f78	Casein
f81	Cheese Cheddar type
f82	Cheese mould type
f251	Cheese Parmesan type
f231	Cooked milk
f2	Cow milk
f232	Curd
f153	Dutch cheese
f150	Edam cheese

f325	Ewe's cheese
f326	Goat cheese
f300	Goat milk
f198	Gouda cheese
f63	Kefir
f154	Maasdam cheese
f54	Mare's milk
f168	Milk powder
f252	Mozzarella cheese
f152	Roquefort cheese
f157	Sulguni cheese
f70	Swiss cheese
f250	Yogurt

### Fish & Seafood

f62	Alaska pollock
f313	Anchovy
f37	Blue mussel
f185	Bream
f357	Capelin
f180	Carp
f207	Clam
f3	Codfish

f23	Crab
f239	Cuttlefish
f355	Dorada
f360	Grouper
f42	Haddock
f307	Hake
f303	Halibut
f205	Herring

f411	Hunchback salmon
f356	Lancet fish
f80	Lobster
f206	Mackerel
f59	Octopus
f290	Oyster
f248	Pacific saury
f362	Pangasius (swai)
f163	Pike
f254	Plaice
f249	Pollock
f323	Red caviar
f249	Saithe (American Pollack)
f41	Salmon
f61	Sardine

f308	Sardine (Pilchard)
f338	Scallop
f359	Seabass
f24	Shrimp
f179	Shrimp tiger
f337	Sole
f304	Spiny lobster
f258	Squid
f358	Sturgeon
f354	Tilapia
f204	Trout
f40	Tuna
f356	Walffish
f415	Zander

### Spices

f333	Allspice (pimento, allspice)
f271	Anise
f269	Basil
f278	Bay leaf
f280	Black pepper
f265	Caraway
f267	Cardamon
f85	Celery
f279	Chili pepper
f220	Cinnamon
f268	Cloves
f317	Coriander
f283	Curcuma
f281	Curry
f277	Dill
f219	Fennel seed

f270	Ginger
f263	Green pepper
f275	Lovage
f274	Majoram
f89	Mustard
f282	Nutmeg
f334	Oregano
f46	Paprika
f86	Parsley
f335	Rosemary
f331	Saffron
f344	Sage
f272	Tarragon
f273	Thyme
f234	Vanilla
f332	White pepper

### Others

f286	Bamboo shoot
f200	Cep (Boletus edulis)
f330	Chamomile tea
f199	Chanterelle
f155	Chicory
f105	Chocolate

f93	Cocoa
f361	Coconut milk
f221	Coffee
f266	Green tea
f246	Guar gum (E412)
f297	Gum arabic

f147	Hibiscus tea
f247	Honey
f197	Honey mushrooms (armillaria)
f324	Hops
f123	Lecithin
f90	Malt
f336	Mate
f212	Mushrooms (champignon)

f195	Oyster mushroom
f148	Rooibos tea
f173	Seaweed (Laminaria)
f314	Snail
f222	Tea
f230	Tofu (bean curd)
f45	Yeast (Saccharomyces cerevisiae)



## Drugs

### Local anesthetics

c86	Benzocaine	c100	Prilocaine
c82	Lidocaine	c210	Tetracaine
c88	Mepivacaine	c68	Ultracaine (Articaine)
c83	Novocaine (Procaine)		

### Analgesics & NSAIDS

c51	Aspirin	c110	Naproxen
c209	Chymopapain	c20	Paracetamol
c281	Diclofenac	c65	Phenylbutazone
c286	Ibuprofen	c77	Piroxycam
c93	Indometacin	c90	Propyphenazone
c172	Ketoprofen	c52	Pyrazolon (4-aminoantipyrine)
c91	Metamizol		

### Antibiotics

c204	Amoxicillin	c212	Erythromycin
c203	Ampicillin	c207	Gentamycin
c194	Azithromycin	c153	Metronidazole
c119	Bacampicillin	c95	Neomycin
c69	Cephalexin	c175	Norfloxacin
c7	Cefaclor	c118	Ofloxacin
c206	Cephalosporin	c116	Oxacillin
c54	Cephalothin	c1	Penicilloyl G
c152	Chloramphenicol	c2	Penicilloyl V
c108	Ciprofloxacin	c63	Phosphomycin
c170	Clarithromycin	c301	Rifampicin
c67	Cloxacillin	c436	Spiramycin
c62	Doxycycline	c295	Streptomycin
		c205	Tetracycline

### Antiinfectives

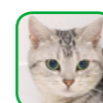
c111	Resorcin	c57	Trimethoprim
c58	Sulfamethoxazole		

### Hormonal treatments

c3	ACTH	c73	Insulin human
c155	Cortisone	c70	Insulin porcine
c196	Epinephrine	c424	Prednisolone
c71	Insulin bovine	c99	Thyroxine

### Others

c105	4-Aminobenzoic acid (Vitamin B10)	c104	Folinic acid
c320	Acetylcysteine	c74	Gelatin
c96	Ambroxol	c208	Protamine
c181	Ascorbic acid (Vitamin C)	c101	Pyridoxine
c103	Atropine	c81	Theophylline
c97	Bromhexine	c106	Thiamine (Vitamin B1)
c107	Captopril	c114	Tryptophan
c133	Cobalamin (Vitamin B12)	c113	Tyramine



## Epithelia

e77	Budgerigar droppings	e208	Chinchilla epithelium
e78	Budgerigar feathers	e4	Cow dander
e79	Budgerigar serum proteins	e5	Dog dander
e201	Canarian feathers	e2	Dog epithelium
e100	Cat dander	e86	Duck feathers
e1	Cat epithelium	e214	Finch feathers
e218	Chicken droppings	e209	Gerbil epithelium
e85	Chicken feathers	e80	Goat epithelium

e70	Goose feathers
e6	Guinea pig epithelium
e84	Hamster epithelium
e3	Horse dander
e31	Horse epithelium
e71	Mouse epithelium
e88	Mouse epithelium+serum-urine proteins
e93	Parakeet feathers



### Mites

d70	Acarus siro
d201	Blomia tropicalis
d2	Dermatophagoides farinae
d3	Dermatophagoides microceras
d1	Dermatophagoides pteronyssinus



### moulds

m6	Alternaria alternata (tenuis)
m17	Aspergillus amstelodami
m228	Aspergillus flavus
m3	Aspergillus fumigatus
m33	Aspergillus niger
m48	Aspergillus oryzae
m36	Aspergillus terreus
m12	Aureobasidium pullulans
m7	Botrytis cinerea
m5	Candida albicans
m2	Cladosporium herbarum
m16	Curvularia lunata
m57	Epidermophyton floccosum
m9	Fusarium moniliforme
m49	Fusarium oxysporum
m51	Fusarium solani
m8	Helminthosporium halodes
m227	Malassezia spp
m56	Microsporum canis
m20	Mucor mucedo
m4	Mucor racemosus

e213	Parrot feathers
e83	Pig epithelium
e7	Pigeon droppings
e215	Pigeon feathers
e82	Rabbit epithelium
e87	Rat epithelium+serum-urine proteins
e74	Rat urine proteins
e81	Sheep epithelium and wool
e89	Turkey feathers

d74	Euroglyphus maynei
d73	Glycyphagus domesticus
d71	Lepidoglyphus destructor
d72	Tyrophagus putrescentiae

m23	Neurospora sitophila
m24	Paecilomyces variotii
m25	Penicillium brevi-compactum
m55	Penicillium digitatum
m1	Penicillium notatum
m30	Penicillium roquefortii (Blue mold cheese)
m28	Penicillium expansum
m13	Phoma betae
m11	Rhizopus nigricans
m43	Saccharomyces carlsbergiensis (Barm)
m44	Saccharomyces cerevisiae
m34	Serpula lacrymans
m10	Stemphylium botryosum
m15	Trichoderma viride
m205	Trichophyton rubrum
m60	Ustilago avenae
m61	Ustilago cynodontis
m62	Ustilago maydis
m63	Ustilago nuda



### Dusts

h0	House dust (Mites - Moulds - Epithelia)
h1	House dust - Greer labs inc.



### Insects - Venoms

i206	American cockroach (Periplaneta americana)
i67	Aphids (Aphididae)
i68	Black fly (Simulium venustum)
i73	Bloodworm (Chironomus spp.)
i66	Cat flea (Ctenocephalides felis)
i6	Cockroach (Blatella germanica)
i3	Common wasp (yellow jacket) (Vespula spp.)
i75	European hornet (Vespa crabro)
i70	Fire ant (Solenopsis invicta)
i1	Honey bee (Apis mellifera)
i204	Horse fly (Tabanus spp.)



### Grasses

g17	Bahia grass (Paspalum notatum)
g201	Barley (Hordeum vulgare)
g9	Bentgrass (Agrostis stolonifera)
g2	Bermuda grass (Cynodon dactylon)
g11	Bromegrass (Bromus inermis)
g71	Canary grass (Phalaris arundinacea)
g3	Cocksfoot (Dactylis glomerata)
g200	Common cattail (Typha latifolia)
g8	Common meadow grass (Poa pratensis)
g7	Common reed (Phragmites communis)
g21	Couch (Quack) Grass (Agropyron repens)
g14	Cultivated oat (Avena sativa)

h2	House dust (Mites - Moulds - Epithelia - Insects - Textiles)
h3	Books dust

i14	House cricket (Acheta domestica)
i15	Housefly (Musca domestica)
i71	Mosquito (Aedes communis)
i74	Mosquito (Culex pipiens)
i8	Moth (Heterocera mix)
i4	Paper wasp (Polistes spp.)
i69	Red wood ant (Formica spp.)
i2	White-faced hornet (Dolichovespula maculata)
i5	Yellow hornet (Dolichovespula arenaria)

g12	Cultivated rye (Secale cereale)
g15	Cultivated wheat (Triticum aestivum)
g10	Johnson grass (Sorghum halepense)
g202	Maize (Zea mays)
g4	Meadow fescue (Festuca elatior)
g16	Meadow foxtail (Alopercurus pratensis)
g5	Rye grass (Lolium perenne)
g1	Sweet vernall grass (Anthoxanthum odoratum)
g6	Timothy grass (Phleum pratense)
g13	Velvet Grass (Holcus lanatus)
g70	Wild rye grass (Elymus triticoides)



## Weeds

w45	Alfalfa ( <i>Medicago sativa</i> )
w210	Beet ( <i>Beta vulgaris</i> )
w206	Camomile ( <i>Matricaria chamomilla</i> )
w13	Cocklebur ( <i>Xanthium commune</i> )
w20	Common nettle ( <i>Urtica dioica</i> )
w14	Common pigweed ( <i>Amaranthus retroflexus</i> )
w1	Common ragweed ( <i>Ambrosia elatior</i> )
w41	Curly dock ( <i>Rumex crispus</i> )
w8	Dandelion ( <i>Taraxacum vulgare</i> )
w46	Dog fennel ( <i>Eupatorium capillifolium</i> )
w4	False ragweed ( <i>Franseria acanthicarpa</i> )
w17	Firebush ( <i>Kochia scoparia</i> )
w3	Giant ragweed ( <i>Ambrosia trifida</i> )
w12	Golden rod ( <i>Solidago virgaurea</i> )
w10	Goosefoot (Lamb`s quarters) ( <i>Chenopodium album</i> )
w65	Krantz aloe ( <i>Aloe arborescens</i> )
w6	Mugwort ( <i>Artemisia vulgaris</i> )

w7	Ox eye daisy (Marguerite) ( <i>Chrysanthemum leucanthemum</i> )
w36	Primerose ( <i>Primula variabilis</i> )
w203	Rape ( <i>Brassica napus</i> )
w34	Red clover ( <i>Trifolium pratense</i> )
w9	Ribwort plantain ( <i>Plantago lanceolata</i> )
w16	Rough marshelder ( <i>Iva ciliata</i> )
w11	Salwort ( <i>Salsola kali</i> )
w15	Scale ( <i>Atriplex lentiformis</i> )
w18	Sheep sorrel ( <i>Rumex acetosella</i> )
w204	Sunflower ( <i>Helianthus annuus</i> )
w30	Tulip ( <i>Tulipa spp.</i> )
w21	Wall pellitory ( <i>Parietaria judaica</i> )
w19	Wall pellitory ( <i>Parietaria officinalis</i> )
w2	Western ragweed ( <i>Ambrosia psilostachya</i> )
w32	White sweet clover ( <i>Melilotus alba</i> )
w5	Wormwood ( <i>Artemisia absinthium</i> )
w33	Yellow sweet clover ( <i>Melilotus officinalis</i> )



## Trees

t19	Acacia ( <i>Acacia longifolia</i> )
t34	Almond ( <i>Prunus dulcis</i> )
t30	Apricot ( <i>Prunus armeniacea</i> )
t222	Arizona cypress ( <i>Cupressus arizonica</i> )
t13	Aspen ( <i>Populus tremula</i> )
t73	Australian pine ( <i>Casuarina equisetifolia</i> )
t5	Beech ( <i>Fagus spp.</i> )
t3	Birch ( <i>Betula verrucosa</i> )
t21	Cajeput tree ( <i>Melaleuca leucadendron</i> )
t31	Cherry ( <i>Prunus cerasus</i> )
t206	Chestnut ( <i>Castanea sativa</i> )
t37	Chinese pear ( <i>Pyrus pyrifolia</i> )
t38	Coconut tree ( <i>Cocos nucifera</i> )

t4	Common hazel ( <i>Corylus avellana</i> )
t116	Common privet ( <i>Ligustrum vulgare</i> )
t214	Date palme ( <i>Phoenix dactylifera</i> )
t114	Dog-rose ( <i>Rosa canina</i> )
t207	Douglas fir ( <i>Pseudotsuga taxifolia</i> )
t14	Eastern cottonwood ( <i>Populus deltoides</i> )
t205	Elder ( <i>Sambucus nigra</i> )
t8	Elm ( <i>Ulmus americana</i> )
t209	European hornbeam ( <i>Carpinus betulus</i> )
t28	False acacia ( <i>Robinia pseudoacacia</i> )
t201	Fir-tree ( <i>Picea excelsa</i> )
t2	Grey alder ( <i>Alnus incana</i> )
t18	Gum-tree ( <i>Eucaliptus spp.</i> )

t22	Hickory ( <i>Carya pecan</i> )
t203	Horse chestnut ( <i>Aesculus hippocastanum</i> )
t23	Italian cypres ( <i>Cupressus sempervirens</i> )
t17	Japanese cedar ( <i>Cryptomeria japonica</i> )
t6	Juniper ( <i>Juniperus sabinoides</i> )
t24	Lilac ( <i>Syringa vulgaris</i> )
t208	Linden ( <i>Tilia cordata</i> )
t11	London plane (Maple leaf sycamore) ( <i>Platanus acerifolia</i> )
t39	Mango ( <i>Mangifera indica</i> )
t1	Maple ash ( <i>Acer negundo</i> )
t20	Mesquite ( <i>Prosopis juliflora</i> )
t112	Mock-orange ( <i>Philadelphus coronarius</i> )
t7	Oak ( <i>Quercus alba</i> )

t9	Olive ( <i>Olea europea</i> )
t32	Orange tree ( <i>Citrus sinensis</i> )
t35	Peach ( <i>Prunus persica</i> )
t36	Pear ( <i>Pyrus communis</i> )
t16	Pine ( <i>Pinus silvestris</i> )
t33	Plum ( <i>Prunus domestica</i> )
t115	Silver wattle (mimosa) ( <i>Acacia dealbata</i> )
t29	Sweet cherry ( <i>Prunus avium</i> )
t77	Virginia live oak ( <i>Quercus virginiana</i> )
t10	Walnut ( <i>Juglans spp.</i> )
t15	White ash ( <i>Fraxinus americana</i> )
t70	White mulberry
t102	White willow ( <i>Salix alba</i> )
t12	Willow ( <i>Salix caprea</i> )
t41	Yew ( <i>Taxus media</i> )



## Occupational

k87b	Alpha-amylase (from barley malt)
k99	Amaranth (dye)
k300	Benzoic acid
k92	Brilliant green (dye)
k202	Bromelain
k96	Chinoline yellow
k85	Chloramine-T
k95	Cochineal (natural)
k83	Cotton seed
k78	Ethylene oxide
k81	Ficus benjamina
k80	Formaldehyde
k91	Henna
k93	Indigocarmine
k77	Isocyanate HDI
k76	Isocyanate MDI

k75	Isocyanate TDI
k13	Jute
k82	Latex
k208	Lysozyme
k201	Papain
k213	Pepsin
k203	Phospholipase
k79	Phthalic anhydride
k20	Sheep wool (treated)
k74	Silk
k301	Sorbic acid
k84	Sunflower seed
k94	Tartrazine
k86	Trimellitic anhydride





ALKOR BIO  
192148, Saint-Petersburg, 44  
phone: +7 (812) 677-87-79 | 677-21-65  
phone/fax: +7 (812) 677-21-62  
info@alkorbio.ru | www.alkorbio.ru