

# PROTIA *Allergy-Q*

MULTIPLE ALLERGEN SIMULTANEOUS TEST



PROTIA <i>Allergy-Q</i>	Atopy panel
PROTIA <i>Allergy-Q 64</i>	Inhalant panel
PROTIA <i>Allergy-Q 64</i>	Food panel
PROTIA <i>Allergy-Q 64S</i>	S panel
PROTIA <i>Allergy-Q 64G</i>	Inhalant panel
PROTIA <i>Allergy-Q 64G</i>	Food panel
PROTIA <i>Allergy-Q 96</i>	M panel
PROTIA <i>Allergy-Q 128</i>	M panel
PROTIA <i>Allergy-Q 128</i>	L panel
PROTIA <i>Food IgG 96</i>	
PROTIA <i>Specific IgG4</i>	

# Allergy Screening Test

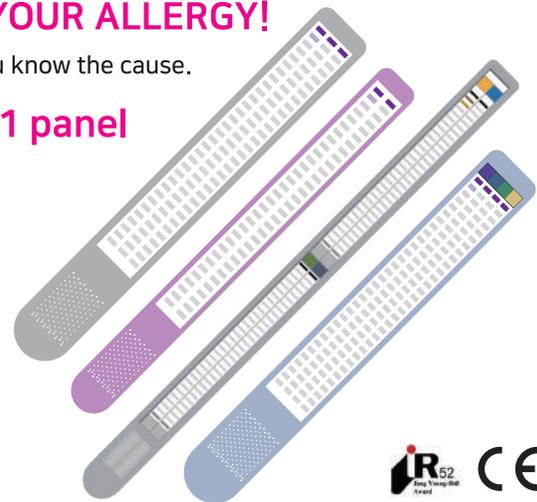
## PROTIA Allergy-Q

Identify the cause of **YOUR ALLERGY!**

The pain can be reduced once you know the cause.

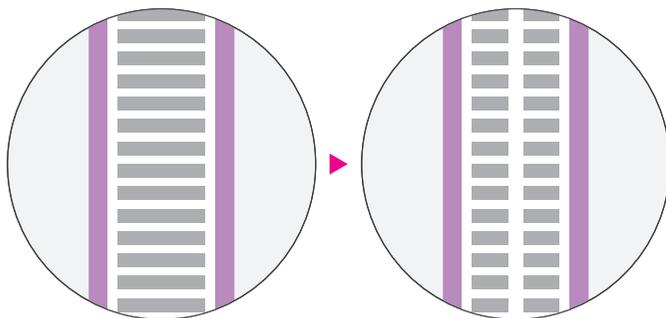
**122 allergens in 1 panel**

Allergy is the abnormal reaction of our body's immune system to certain substances that are generally harmless to most of the people. One of the immunoglobulins, IgE comes into contact with a substance in the blood that is considered a threat; it combines with one of the white blood cells, the mast cells, to release a chemical called histamine. Depending on the part of the body that occurs, this reaction can result in diseases such as dermatitis, rhinitis, conjunctivitis, middle ear infection, asthma. In severe cases, anaphylaxis shock.



## Parallel lines array diagnostic technology

### Compact diagnostic panel



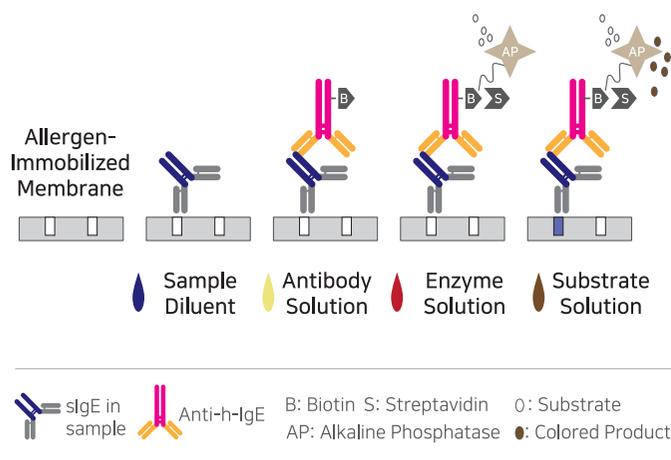
- Parallel lines array(PLA) multiplex biochip technology

- Increase efficiency of test up to 2 ~ 3 fold  
(Patent: KR 1570327)

### Type of panel

128 lines panel : 122 specific allergens		
PROTIA <b>Allergy-Q 128</b>	L panel	Total 122 allergens
PROTIA <b>Allergy-Q 128</b>	M panel	Total 118 allergens
96 lines panel : 107 specific allergens		
PROTIA <b>Allergy-Q 96</b>	M panel	Total 107 allergens
64 lines panel : Over 63 specific allergens		
PROTIA <b>Allergy-Q 64</b>	Inhalant panel	Total 64 allergens
PROTIA <b>Allergy-Q 64</b>	Food panel	Total 72 allergens
PROTIA <b>Allergy-Q 64</b>	S panel	Total 63 allergens
PROTIA <b>Allergy-Q 64</b>	G Inhalant panel	Total 60 allergens
PROTIA <b>Allergy-Q 64</b>	G Food panel	Total 60 allergens
50 lines panel : 48 specific allergens		
PROTIA <b>Allergy-Q</b>	Athopy panel	Total 48 allergens

## Action Mechanism



# Allergy Screening Test

## Parallel lines array diagnostic technology



- The World's largest number allergen testing
- Small serum volume for testing (96 Line: 100uL, 128 Line: 150uL)
- Compact diagnostic panel
- Increased test and cost efficiency
- On strip calibration
- Multiple panels

## Instruments for PROTIA's panel products



**Q-STATION ELITE**  
Fully automatic system

- 40 ~ 48 tests in one process
- Testing different panels at once
- Controlling several Q-STATION ELITE with one PC



Q-STATION ELITE



**Q-Processor**  
Automatic processor

- Integrated PC
- 10 tests in one process



Q-Processor & Q-Smart



**Q-Smart**  
Reading system

- Safe and Easy handling
- Multiple language available
- 10 tests in one process
- Compact size & Light weight

## Valuable and Informative report format

PROTIA Allergy-Q 96M				PROTIA Allergy-Q					
Test ID	Name	Code	Result	Class	Test ID	Name	Code	Result	Class
1	Total IgE	001	505	0	21	Quercus	001	<0.15	0
2	Akazemi	001	<0.15	0	22	Platanus	001	<0.15	0
3	Elm	001	<0.15	0	23	Betula	001	<0.15	0
4	Alnus	001	<0.15	0	24	Salix	001	<0.15	0
5	Ulmus	001	<0.15	0	25	Populus	001	<0.15	0
6	Fraxinus	001	<0.15	0	26	Castanea	001	<0.15	0
7	Quercus	001	<0.15	0	27	Corylus	001	<0.15	0
8	Alnus	001	<0.15	0	28	Juglans	001	<0.15	0
9	Ulmus	001	<0.15	0	29	Parus	001	<0.15	0
10	Fraxinus	001	<0.15	0	30	Castor	001	<0.15	0
11	Quercus	001	<0.15	0	31	Salix	001	<0.15	0
12	Alnus	001	<0.15	0	32	Populus	001	<0.15	0
13	Ulmus	001	<0.15	0	33	Castanea	001	<0.15	0
14	Fraxinus	001	<0.15	0	34	Corylus	001	<0.15	0
15	Quercus	001	<0.15	0	35	Juglans	001	<0.15	0
16	Alnus	001	<0.15	0	36	Parus	001	<0.15	0
17	Ulmus	001	<0.15	0	37	Castor	001	<0.15	0
18	Fraxinus	001	<0.15	0	38	Salix	001	<0.15	0
19	Quercus	001	<0.15	0	39	Populus	001	<0.15	0
20	Alnus	001	<0.15	0	40	Castanea	001	<0.15	0

## PROVEN Quality



- Type of allergen panel
- Sample information
- Analyst's comments
- Allergen information
- Photo of the test panel
- IgE concentration (IU/mL, class)
- Interpretation of the class (Classification of specific IgE concentration)

Accuracy : 93.0%

Sensitivity : 90.3%

Sensitivity : 97.6%

\*High agreement with the gold standard product  
\*\*In 128M model

# Type of Panel

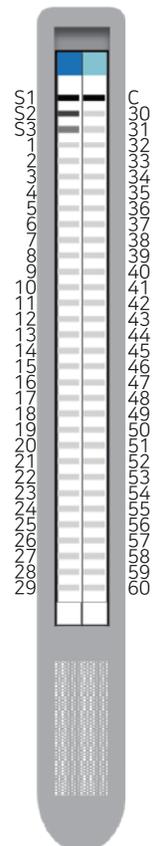
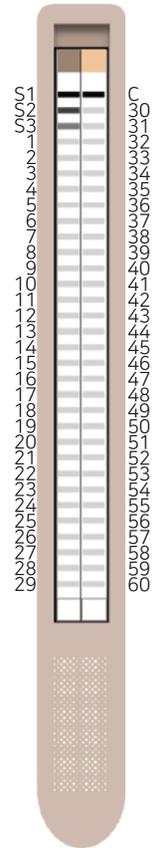
PROTIA Allergy-Q Atopy		PROTIA Allergy-Q 64							
Atopy panel		Inhalant panel			Food panel				
No.	Allergen	No.	Allergen	No.	Allergen	No.	Allergen		
1	Total IgE	1	Total IgE	32	Sweet vernal/ Orchard grass/ Common reed/ Bent grass	1	Total IgE	32	Plaice/Anchovy/ Alaska Pollock
2	Egg white	2	House dust			2	House dust	33	Lobster/ Pacific squid
3	Egg yolk	3	<i>D. pteronyssinus</i>	33	Bermuda grass	3	<i>D. pteronyssinus</i>	34	Eel
4	Milk	4	<i>D. farinae</i>	34	Timothy grass	4	<i>D. farinae</i>	35	Blue mussel/ Oyster/Clam/ Scallop
5	α-lactalbumin	5	Cat epithelium & dander	35	<i>Penicillium notatum</i>	5	Cat epithelium & dander		
6	β-lactoglobulin	6	Dog dander	36	<i>Candida albicans</i>	6	Dog dander	36	Silkworm pupa
7	Casein	7	Egg white	37	Hazel	7	Egg white	37	Pork
8	Peanut	8	Milk	38	Olive	8	Milk	38	Beef
9	Pea	9	Cockroach	39	Maple leaf svcamore	9	Cockroach	39	Chicken
10	Soybean	10	Peanut	40	Willow	10	Peanut	40	Lamb meat
11	Walnut	11	Soy bean	41	Cottonwood	11	Soy bean	41	Cheese, cheddar type
12	Pork	12	Wheat	42	White ash	12	Wheat	42	Barley
13	Beef	13	Alder	43	White pine	13	Alder	43	Rice
14	Chicken	14	Birch	44	Japanese cedar	14	Birch	44	Buckwheat
15	Codfish	15	Oak	45	Acacia	15	Oak	45	Yeast, baker's
16	Mackerel	16	Common ragweed	46	Ox-eye daisy	16	Common ragweed	46	Corn
17	Crab	17	Japanese hop	47	Dandelion	17	Japanese hop	47	Carrot
18	Shrimp	18	Mugwort	48	Plantain	18	Mugwort	48	Potato
19	Clam	19	<i>Alternaria alternata</i>	49	Russian thistle	19	<i>Alternaria alternata</i>	49	Garlic/Onion
20	Silkworm pupa	20	<i>Cladosporium herbarum</i>	50	Goldenrod	20	<i>Cladosporium herbarum</i>	50	Celery
21	Wheat	21	<i>Aspergillus fumigatus</i>	51	Common pigweed	21	<i>Aspergillus fumigatus</i>	51	Cucumber
22	Yeast, baker's	22	Crab	52	Hevea latex	22	Crab	52	Tomato
23	Rice	23	Shrimp	53	Bee venom	23	Shrimp	53	Citrus mix
24	Potato	24	Mackerel	54	Wasp venom	24	Mackerel	54	Strawberry
25	Peach	25	Cultivated rye	55	Mouse/Rat	25	Cultivated rye	55	Kiwi/Mango/ Banana
26	Apple	26	CCD	56	Rabbit	26	CCD	56	Sweet chestnut
27	Housedust	27	Peach	57	Guniea pig	27	Peach	57	Walnut
28	<i>D. pteronyssinu</i>	28	Apple	58	Wool, sheep	28	Apple	58	Hazel nut
29	<i>D. farinae</i>	29	Sesame	59	Hamster	29	Sesame	59	Almond/ Pine nut/ Sunflower
30	Cockroach	30	<i>Acarus siro</i>	60	Horse	30	Codfish		
31	Cat epithelium & dander	31	<i>Tyrophagus putrescentiae</i>			31	Tuna/Salmon	60	Cacao
32	Dog dander								
33	<i>Candida albicans</i>								
34	<i>Tricophyton rubrum</i>								
35	<i>Aspergillus fumigatus</i>								
36	<i>Penicillium notatum</i>								
37	<i>Alternaria alternata</i>								
38	<i>Staphylococcal enterotoxin B</i>								
39	Birch-alder mix								
40	Oak								
41	Grass mix								
42	Common ragweed								
43	Mugwort								
44	Japanese hop								
Total 48 allergens		Total 64 allergens			Total 72 allergens				

# Type of Panel

PROTIA Allergy-Q 64S				PROTIA Allergy-Q 96M					
64S panel				96M panel					
No.	Allergen	No.	Allergen	No.	Allergen	No.	Allergen	No.	Allergen
1	Total IgE	31	Egg yolk	1	Total IgE	32	Sweet vernal/ Orchard grass/ Common reed/ Bent grass	62	Tuna/Salmon
2	Housedust	32	Milk	2	House dust		63	Plaice/Anchovy/ Alaska Pollock	
3	<i>D. pteronyssinus</i>	33	Cheese	3	<i>D. pteronyssinus</i>	33	Bermuda grass	64	Lobster/ Pacific squid
4	<i>D. farinae</i>	34	Peanut	4	<i>D. farinae</i>	34	Timothy grass	65	Eel
5	Cat epithelium & dander	35	Soybean	5	Cat epithelium & dander	35	<i>Penicillium notatum</i>	66	Blue mussel/ Oyster/Clam/ Scallop
6	Dog dander	36	Wheat	6	Dog dander	36	<i>Candida albicans</i>		
7	Cockroach	37	Shrimp	7	Egg white	37	Hazel	67	Silkworm pupa
8	Cultivated rye	38	Lobster	8	Milk	38	Olive	68	Pork
9	Common ragweed	39	Codfish	9	Cockroach	39	Maple leaf sycamore	69	Beef
10	Timothy grass	40	Barley	10	Peanut	40	Willow	70	Chicken
11	<i>Alternaria alternata</i>	41	Rice	11	Soy bean	41	Cottonwood	71	Lamb meat
12	<i>Aspergillus fumigatus</i>	42	Pea	12	Wheat	42	White ash	72	Cheese, cheddar type
13	<i>Penicillium notatum</i>	43	Sesame	13	Alder	43	White pine	73	Barley
14	<i>Candida albicans</i>	44	Apple	14	Birch	44	Japanese cedar	74	Rice
15	Olive pollen	45	Mango/Banana	15	Oak	45	Acacia	75	Buckwheat
16	Bee venom	46	Peach	16	Common ragweed	46	Ox-eye daisy	76	Yeast, baker's
17	Horse	47	Strawberry	17	Japanese hop	47	Dandelion	77	Corn
18	Mouse/Rat	48	Tomato	18	Mugwort	48	Plantain	78	Carrot
19	Rabbit	49	Corn	19	<i>Alternaria alternata</i>	49	Russian thistle	79	Potato
20	Wool (sheep)	50	Carrot	20	<i>Cladosporium herbarum</i>	50	Goldenrod	80	Garlic/Onion
21	<i>Acarus siro</i>	51	Potato	21	<i>Aspergillus fumigatus</i>	51	Common pigweed	81	Celery
22	<i>Tyroph. putrescentiae</i>	52	Garlic/Onion	22	Crab	52	Hevea latex	82	Cucumber
23	Acasia	53	Pumpkin	23	Shrimp	53	Bee venom	83	Tomato
24	White ash	54	Eggplant	24	Mackerel	54	Wasp venom	84	Citrus mix
25	CCD	55	Cucumber	25	Cultivated rye	55	Mouse/Rat	85	Strawberry
26	Yeast, baker's	56	Orange	26	CCD	56	Rabbit	86	Kiwi/Mango/ Banana
27	Almond	57	Pork	27	Peach	57	Guinea pig	87	Sweet chestnut
28	Hazel nut	58	Beef	28	Apple	58	Wool, sheep	88	Walnut
29	Coconut	59	Chicken	29	Sesame	59	Hamster	89	Hazel nut
30	Egg white	60	Lamb meat	30	<i>Acarus siro</i>	60	Horse	90	Almond/Pine nut/ Sunflower
				31	<i>Tyrophagus putrescentiae</i>	61	Codfish	91	Cacao
Total 63 allergens				Total 107 allergens					

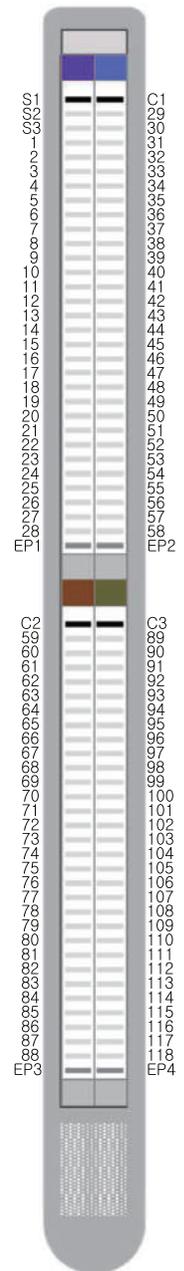
# Type of Panel

PROTIA Allergy-Q 64G							
Food panel				Inhalant panel			
No.	Allergen	No.	Allergen	No.	Allergen	No.	Allergen
1	Yeast, bakers	31	Salmon	1	Housedust	31	<i>Cladosporium herbarum</i>
2	Wheat flour	32	Pacific squid	2	<i>Dermatophagoides pteronyssinus</i>	32	<i>Aspergillus fumigatus</i>
3	Gluten	33	Crab	3	<i>Dermatophagoides farinae</i>	33	<i>Candida albicans</i>
4	Rye	34	Lobster	4	<i>Lepidoglyphus destructor</i>	34	<i>Alternaria alternata</i>
5	Corn	35	Shrimp	5	<i>Blomia tropicalis</i>	35	<i>Rhizopus nigricans</i>
6	Sesame	36	Anchovy	6	Cat epithelium & dander	36	Alder
7	Peanut	37	Tuna	7	Dog dander	37	Birch
8	Soybean	38	Mackerel	8	Horse epithelium	38	Oak
9	White bean	39	Blue mussel	9	Cow epithelium	39	Elm
10	Hazel nut	40	Clam	10	Guinea pig epithelium	40	Olive
11	Brazil nut	41	Scallop	11	Camel dander	41	Willow
12	Almond	42	Tomato	12	Wool, sheep	42	Cottonwood
13	Coconut	43	Carrot	13	Rabbit epithelium	43	White ash
14	Cacao	44	Onion	14	Hamster epithelium	44	White pine
15	Cashew nut	45	Celery	15	Chicken feathers	45	Mesquite
16	Pine nut	46	Mushroom	16	Duck feathers	46	Acacia
17	Walnut	47	Paprika	17	Sweet vernal grass	47	Date palm
18	Sweet chestnut	48	Cucumber	18	Bermuda grass	48	Common ragweed
19	Macadamia nut	49	Eggplant	19	Orchard grass	49	Mugwort
20	Beef	50	Kiwi	20	Ryegrass	50	Dandelion
21	Chicken	51	Mango	21	Timothy grass	51	Plantain
22	Lamb meat	52	Banana	22	Common reed grass	52	Goosefoot, Lamb's quarters
23	Egg white	53	Peach	23	Kentucky blue grass	53	Goldenrod
24	Egg yolk	54	Orange	24	Bent grass	54	Cocklebur
25	Milk	55	Strawberry	25	Cultivated rye	55	Common pigweed
26	$\alpha$ -lactalbumin (nBos d 4)	56	Apple	26	Bee venom	56	Scale, Lenscale
27	$\beta$ -lactoglobulin (nBos d 5)	57	Melon	27	Wasp venom	57	Japanese hop
28	Casein (nBos d 8)	58	Grape	28	Cockroach, German	58	Sunflower seed
29	Cheese	59	Lemon	29	Cockroach, American	59	Hevea latex
30	Codfish	60	CCD	30	<i>Penicillium notatum</i>	60	CCD
Total 60 allergens				Total 60 allergens			



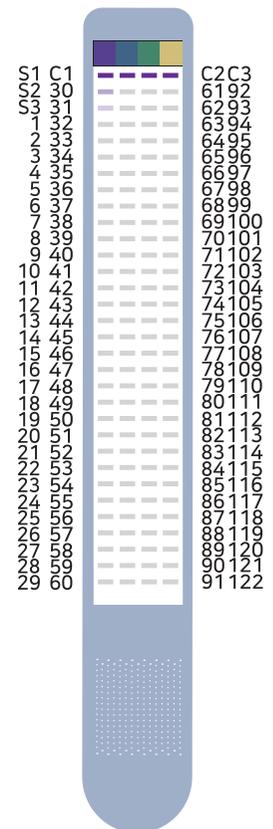
# Type of Panel

PROTIA Allergy-Q 128M							
128M panel							
No.	Allergen	No.	Allergen	No.	Allergen	No.	Allergen
1	Total IgE	29	<i>Penicillium notatum</i>	59	Pork	89	Codfish
2	Housedust	30	<i>Cladosporium herbarum</i>	60	Beef	90	Tuna
3	<i>Dermatophagoides pteronyssinus</i>	31	<i>Aspergillus fumigatus</i>	61	Lamb meat	91	Salmon
4	<i>Dermatophagoides farinae</i>	32	<i>Candida albicans</i>	62	Chicken	92	Pacific squid
5	<i>Acarus siro</i>	33	<i>Alternaria alternata</i>	63	Egg white	93	Mackerel
6	<i>Tyrophagus putrescentiae</i>	34	<i>Rhizopus nigricans</i>	64	Egg yolk	94	Plaice
7	Cat epithelium & dander	35	Alder	65	Milk	95	Eel
8	Dog dander	36	Birch	66	Cheese	96	Anchovy
9	Hamster epithelium	37	Hazel	67	Tomato	97	Lobster
10	Mouse epithelium/ Rat epithelium	38	Oak	68	Carrot	98	Crab
11	Guinea pig epithelium	39	Elm	69	Garlic	99	Shrimp
12	Wool, sheep	40	Olive	70	Onion	100	Blue mussel
13	Rabbit epithelium	41	Sycamore pollen	71	Celery	101	Clam
14	Horse epithelium	42	Willow	72	Cucumber	102	Oyster
15	Common ragweed	43	Cottonwood	73	Mushroom	103	Scallop
16	Mugwort	44	White ash	74	Potato	104	Kiwi
17	Ox-eye daisy	45	White pine	75	Corn	105	Mango
18	Dandelion	46	Japanese cedar	76	Yeast, baker's	106	Banana
19	Plantain	47	Acacia	77	Rice	107	Peach
20	Goosefoot, Lamb's quarters	48	Sweet vernal grass	78	Wheat flour	108	Orange
21	Russian thistle	49	Bermuda grass	79	Rye	109	Strawberry
22	Goldenrod	50	Orchard grass	80	Barley meal	110	Apple
23	Cocklebur	51	Ryegrass	81	Buckwheat	111	Cacao
24	Common pigweed	52	Timothy grass	82	Sesame	112	Coconut
25	Japanese hop	53	Common reed	83	Peanut	113	Cashew nut
26	Sunflower	54	Bent grass	84	Soybean	114	Pine nut
27	Hevea latex	55	Cultivated rye	85	White bean	115	Walnut
28	Silkworm pupa	56	Bee venom	86	Hazelnut	116	Sweet chestnut
		57	Wasp venom	87	Brazil nut	117	Macadamia nut
		58	Cockroach	88	Almond	118	CCD
<b>Total 118 allergens</b>							



# Type of Panel

PROTIA Allergy-Q 128L							
128L panel							
No.	Allergen	No.	Allergen	No.	Allergen	No.	Allergen
1	Total IgE	30	Bent grass	61	CCD	92	Sesame
2	Housedust	31	Cultivated rye	62	Tomato	93	Corn
3	<i>Dermatophagoides pteronyssinus</i>	32	Common ragweed	63	Carrot	94	Rice
4	<i>Dermatophagoides farinae</i>	33	Mugwort	64	Garlic	95	Wheat flour
5	<i>Acarus siro</i>	34	Ox-eye daisy	65	Onion	96	Gluten
6	<i>Tyrophagus putrescentiae</i>	35	Dandelion	66	Celery	97	Rye
7	Cat epithelium & dander	36	Plantain	67	Cucumber	98	Barley meal
8	Dog dander	37	Goosefoot, Lamb's quarters	68	Mushroom	99	Buckwheat
9	Hamster epithelium	38	Russian thistle	69	Potato	100	Egg white
10	Mouse epithelium/Rat epithelium	39	Goldenrod	70	Pumpkin	101	Egg yolk
11	Guinea pig epithelium	40	Cocklebur	71	Egg plant	102	Milk
12	Wool, sheep	41	Common pigweed	72	Kiwi	103	Cheese
13	Rabbit epithelium	42	Japanese hop	73	Mango	104	Pork
14	Horse epithelium	43	Alder	74	Banana	105	Beef
15	<i>Penicillium notatum</i>	44	Birch	75	Peach	106	Lamb meat
16	<i>Cladosporium herbarum</i>	45	Hazel	76	Orange	107	Chicken
17	<i>Aspergillus fumigatus</i>	46	Oak	77	Strawberry	108	Codfish
18	<i>Candida albicans</i>	47	Elm	78	Apple	109	Tuna
19	<i>Alternaria alternata</i>	48	Olive	79	Cacao	110	Salmon
20	<i>Rhizopus nigricans</i>	49	Sycamore pollen	80	Coconut	111	Pacific squid
21	Bee venom	50	Willow	81	Peanut	112	Mackerel
22	Wasp venom	51	Cottonwood	82	Soybean	113	Plaice
23	Cockroach	52	White ash	83	White bean	114	Eel
24	Sweet vernal grass	53	White pine	84	Hazelnut	115	Anchovy
25	Bermuda grass	54	Japanese cedar	85	Brazil nut	116	Lobster
26	Orchard grass	55	Acacia	86	Almond	117	Crab
27	Ryegrass	56	Cypress	87	Cashew nut	118	Shrimp
28	Timothy grass	57	Hevea latex	88	Pine nut	119	Blue mussel
29	Common reed	58	Sunflower	89	Walnut	120	Clam
		59	Silkworm pupa	90	Sweet chestnut	121	Oyster
		60	Yeast, baker's	91	Macadamia nut	122	Scallop



Total 122 allergens

## Food Intolerance Test

# PROTIA Food IgG 96

Immunoblot assay for the quantitative detection of food specific IgG antibodies in human serum & plasma



### Specification of PROTIA Food IgG 96

- Required sample amount: 9ul
- High-density diagnostic panel
- Line blot immunoassay: High reproducibility
- On-strip calibration
- Detection limit: 2.00 mg/L
- Detects 89 food allergens on 1 panel
- Fully automated equipment available

## Food Hypersensitivity



### Food Intolerance

Response after  
2 ~ 72 hr of food intake



**Inflammatory** reaction of  
**IgG** against particular food

**PROTIA**  
**Food IgG 96**

### Acute Allergy

Immediate reaction  
& Anaphylaxis shock



**Histamine** reaction of  
**IgE** against allergen

**PROTIA**  
**Allergy-Q**

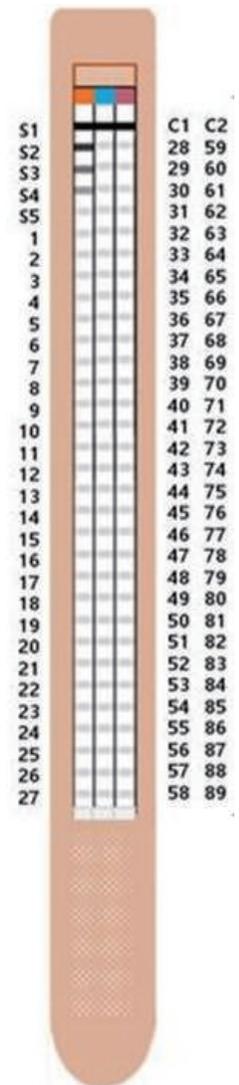


Specific IgG-mediated delayed food intolerance test  
A single test covers 89 food that can cause food hypersensitivities  
**PROTIA Food IgG 96**

## Type of Panel

### PROTIA Food IgG 96

No.	Allergen	No.	Allergen	No.	Allergen
1	Rice	28	Tuna	59	Mushroom
2	Barley meal	29	Salmon	60	Tomato
3	Corn	30	Trout	61	Apple
4	Wheat flour	31	Codfish	62	Banana
5	Gluten	32	Mackerel	63	Grape
6	Rye	33	Plaice	64	Peach
7	Buckwheat	34	Eel	65	Strawberry
8	Soybean	35	Anchovy	66	Orange
9	Peanut	36	Clam	67	Mango
10	Pea	37	Blue mussel	68	Kiwi
11	Red kidney bean	38	Scallop	69	Apricot
12	Lentil	39	Oyster	70	Avocado
13	Sesame	40	Crab	71	Blueberry
14	Pine nut	41	Shrimp	72	Cherry
15	Sweet chestnut	42	Lobster	73	Lemon
16	Walnut	43	Pacific squid	74	Melon
17	Brazil nut	44	Octopus	75	Pear
18	Almond	45	Olive fruit	76	Pineapple
19	Hazel nut	46	Cucumber	77	Plum
20	Pistachio nut	47	Carrot	78	Watermelon
21	Macadamia nut	48	Eggplant	79	Egg white
22	Cashew nut	49	Garlic	80	Egg yolk
23	Coconut	50	Onion	81	Chicken
24	Sunflower	51	Lettuce	82	Pork
25	Mustard	52	Cabbage	83	Beef
26	Cacao	53	Celery	84	Lamb meat
27	Yeast, bakers	54	Spinach	85	Goat milk
		55	Broccoli	86	Milk
		56	Potato	87	$\alpha$ -lactalbumin
		57	Sweet potato	88	$\beta$ -lactoglobulin
		58	Pumpkin	89	Casein

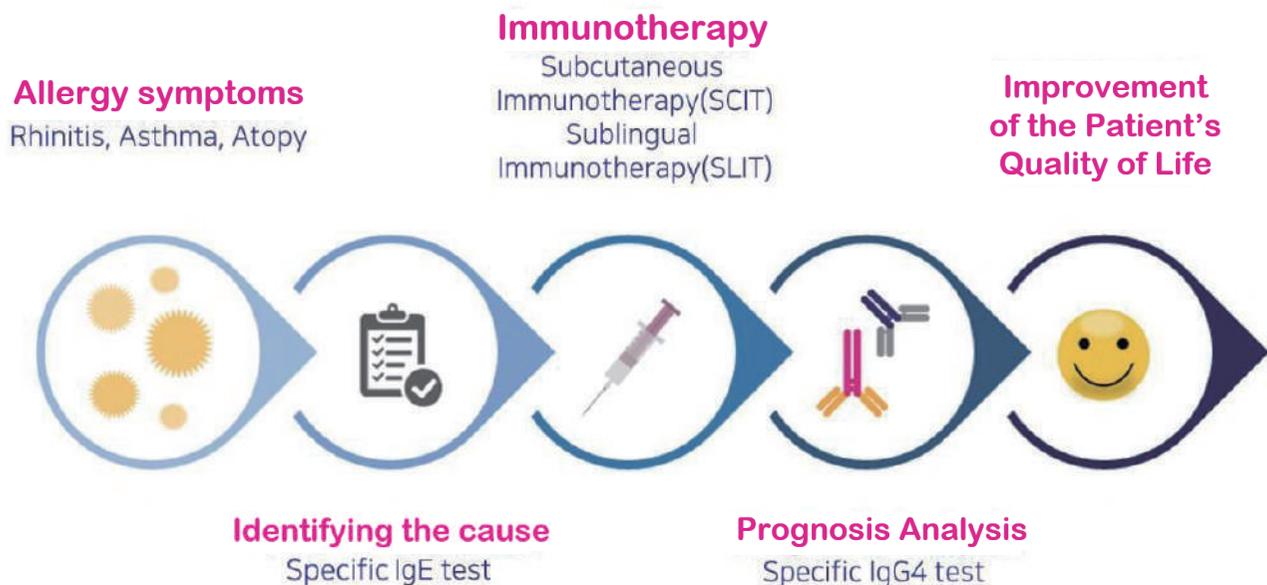


# PROTIA specific IgG4

## More than just an allergy detection, PROTIA specific IgG4

Detection of IgE and IgG4 together for further diagnostic of allergies!

As the method of measuring specific IgE is an indicator of an allergic reaction, measuring specific IgG4 is known as an indicator of therapeutic outcome after allergy immunotherapy. IgG4 works as a blocking antibody that prevents interaction between the mast cells and specific IgE. IgG4 increases significantly depending on the level of exposure to antigens during allergic immunotherapy. The ratio of IgE and IgG4 concentration is important to understand various allergy symptoms.



## Type of Panel

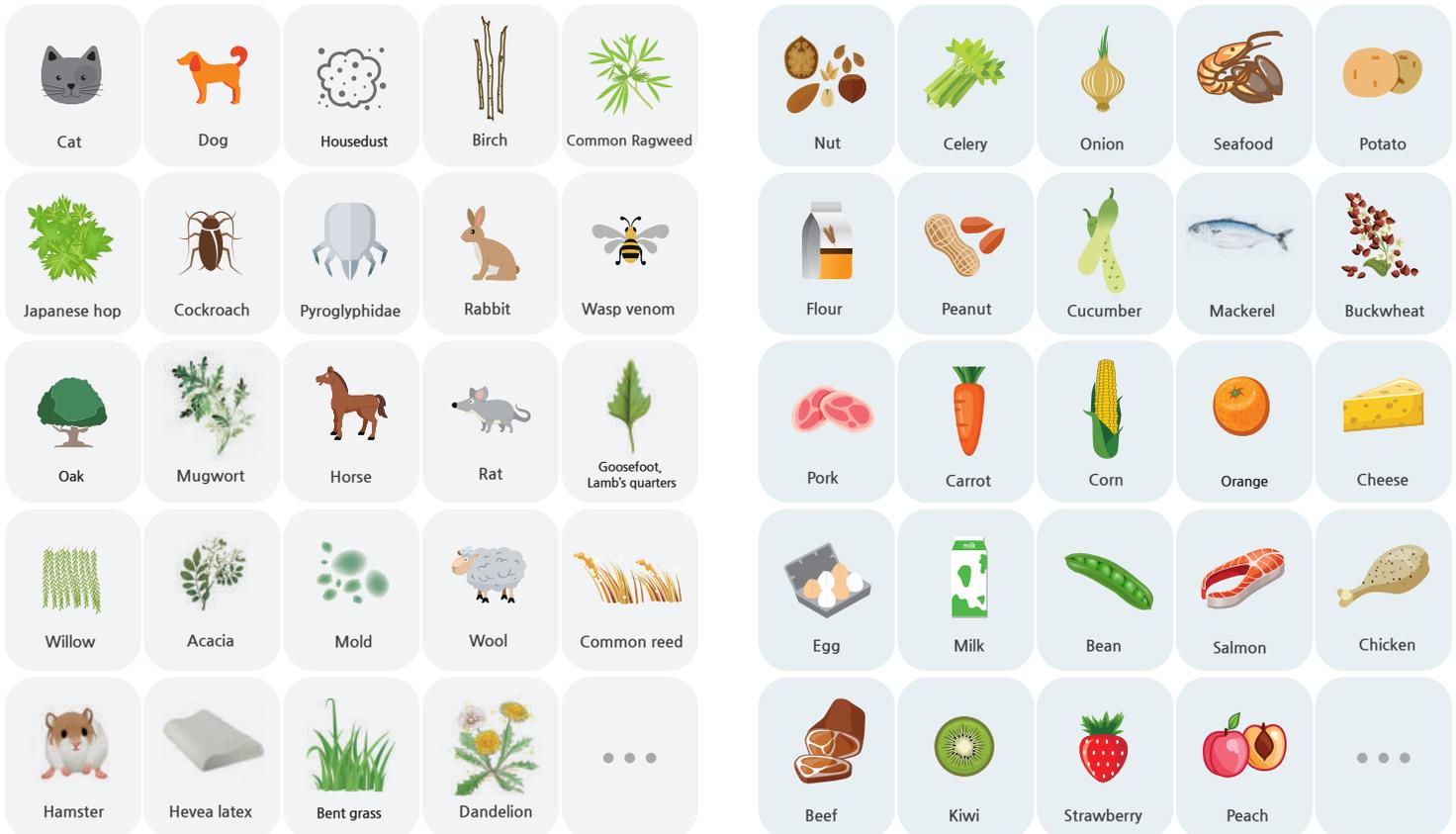
No.	Allergen	No.	Allergen	No.	Allergen
1	D. pteronyssinus	15	Wasp venom	29	Shrimp
2	D. farinae	16	Cockroach	30	Blue mussel/ Oyster
3	Cat epithelium&dander	17	Pork	31	Wheat
4	Dog dander	18	Beef	32	Buckwheat
5	Alder/ Birch	19	Chicken	33	Rice
6	Oak	20	Egg yolk	34	Soy bean
7	Sweet vernal grass/ Bermuda grass/ Orchard grass/ Timothy grass	21	Egg white	35	Peanut
8	Common ragweed	22	Milk	36	Walnut
9	Mugwort	23	Casein	37	Almond
10	Japanese hop	24	$\alpha$ -lactalbumin	38	Peach
11	Aspergillus fumigatus	25	$\beta$ -lactoglobulin	39	Apple
12	Penicillium notatum	26	Codfish	40	Kiwi
13	Alternaria alternata	27	Mackerel	41	Mango
14	Bee venom	28	Crab	42	$\alpha$ -Gal (Thyroglobulin)

# Innovative Technology & Novel Bio-Product

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# Allergy-Q

## Multiple Allergens Simultaneous Test



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