



# Allergen ELISA Kits

## Products

**Egg (Ovalbumin) ELISA Kit**

**Casein ELISA Kit**

**Wheat/Gluten (Gliadin) ELISA Kit**

**Peanut ELISA Kit**

**Beta-lactoglobulin ELISA Kit II**

**Buckwheat ELISA Kit II**

***High sensitivity, Fast and Easy***

***Especially, superior to  
test for processed food.***



## **Intended Use**

We offer innovative food allergen ELISA kits which can effectively solubilize and extract proteins from processed and unprocessed food. These kits use an innovative new extraction solution to achieve a high recovery rate of the target protein in both processed and unprocessed food.

## **Performance**

<b>Performance</b>	
Assay range	0.31 - 20 ppm ( $\mu\text{g}$ protein /g food )
Limit of detection	0.31 ppm ( $\mu\text{g}$ protein /g food )
Limit of quantity	0.31 ppm ( $\mu\text{g}$ protein /g food )
Reproducibility	Intra-, Inter, Lot to Lot reproducibility:C.V.<10%
Sample extraction	Heating 10 min or shaking over night (at least 12 hours)
Assay time	110 min (excluding sample preparation/extraction )
Sample number	40 samples (Duplicate)

Egg : ppm ( $\mu\text{g}$  egg protein /g food), Casein & Beta-lactoglobulin : ppm ( $\mu\text{g}$  milk protein /g food)  
Wheat : ppm ( $\mu\text{g}$  wheat protein /g food), Peanut : ppm ( $\mu\text{g}$  peanut protein /g food)

## **High light**

### **Innovative extraction method and unique antibodies**

Using an novel extraction solution, the allergen is significantly solubilized even after the exposure to extreme processing condition, and our unique antibodies can detect the target. Accordingly, the kits can apply for the examination of highly processed foods, as well as swab samples collected in food processing.

## Validation data of Allergen ELISA Kits

### Sensitivity

	Egg	Casein	Gluten	Peanut
Limit of detection	0.31 ppm	0.31 ppm	0.31 ppm	0.31 ppm
Limit of quantity	0.31 ppm	0.31 ppm	0.31 ppm	0.31 ppm

Egg : ppm ( $\mu\text{g}$  egg protein /g food), Casein : ppm ( $\mu\text{g}$  milk protein /g food)  
Wheat : ppm ( $\mu\text{g}$  wheat protein /g food), Peanut : ppm ( $\mu\text{g}$  peanut protein /g food)

### Representative test results of commercial foods

Food	Egg (ppm)
Biscuit	21,827
Bread	1,509
Custard pudding	24,038
Ham	36,645
Mayonnaise	3,158

Food	Casein (ppm)
Biscuit	1,338
Bread	228
Custard pudding	11,345
Ham	1,933
Wafers	7,631

Food	Wheat (ppm)
Biscuit	42,625
Bread	140,302
Baby food	1,076
Stew roux	78,449
Fried chicken	14,129

Food	Peanut (ppm)
Biscuit	12,922
Peanut butter	37,151
Peanut soup	5,945
Peanut cream	13,954

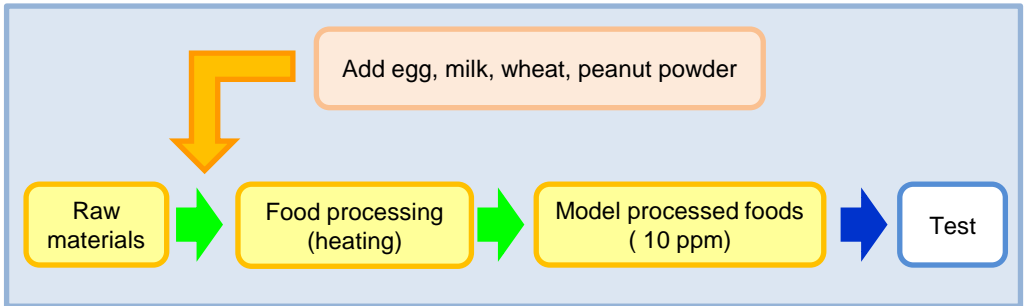
Egg : ppm ( $\mu\text{g}$  egg protein /g food), Casein : ppm ( $\mu\text{g}$  milk protein /g food)  
Wheat : ppm ( $\mu\text{g}$  wheat protein /g food), Peanut : ppm ( $\mu\text{g}$  peanut protein /g food)

## Reactivity of model processed foods

Model processed foods were prepared by spiking egg, milk, wheat, and peanut powder at **10 ppm ( $\mu\text{g protein /g food}$ )** to the food before processing.

Egg : ppm ( $\mu\text{g egg protein /g food}$ ), Milk : ppm ( $\mu\text{g milk protein /g food}$ )

Gluten : ppm ( $\mu\text{g wheat protein /g food}$ ), Peanut : ppm ( $\mu\text{g peanut protein /g food}$ )



Unit: ppm

Food	Heating condition	Egg	Casein	Wheat	Peanut
Sausage	Cooked general method	7.0	10.9	No test	No test
Beef (retort)	Cooked general method	7.6	11.5	No test	No test
Biscuit	Heated 8.5min by oven	5.2	9.7	No test	No test
Orange juice	Heated at 90°C for 10min	8.1	9.0	11.2	8.5
Strawberry jam	Boiled until it has evaporated	8.7	13.7	No test	13.4
Chicken meat ball	Heated 10min at 100°C	No test	No test	9.2	8.8
Tomato souse	Cooked general method	No test	No test	12.2	11.0
Jerry	Heated up to reach 90°C	8.9	9.5	8.2	9.9
Porridge	Cooked by a rice cooker	8.4	5.5	9.6	9.9

# Cross reactivity of Allergen ELISA kits

Unit : ppm ( $\mu\text{g}$  protein /g food)

Food	Egg	Casein	Gluten	Peanut
Egg	>20	<0.31	<0.31	<0.31
Milk	<0.31	>20	<0.31	<0.31
Skim milk	<0.31	>20	<0.31	<0.31
Wheat	<0.31	<0.31	>20	<0.31
Barley	<0.31	<0.31	>20	<0.31
Rye	<0.31	<0.31	>20	<0.31
Oats	<0.31	<0.31	>20	<0.31
Soy bean	<0.31	<0.31	<0.31	<0.31
Corn flour	<0.31	<0.31	<0.31	<0.31
Peanut	<0.31	<0.31	<0.31	>20
Almond (Roasted)	<0.31	<0.31	2.36	<0.31
Cashew (Roasted)	<0.31	<0.31	<0.31	<0.31
Macadamia (Roasted)	<0.31	<0.31	<0.31	<0.31
Pistachio (Roasted)	<0.31	<0.31	<0.31	<0.31
Walnut (Roasted)	<0.31	<0.31	<0.31	<0.31
Sesame (Roasted)	<0.31	<0.31	<0.31	<0.31
Black pepper	<0.31	<0.31	<0.31	<0.31
Red pepper	<0.31	<0.31	0.52	<0.31
Cumin	<0.31	<0.31	1.36	<0.31
Coriander	<0.31	<0.31	1.13	<0.31
Poppy seed	<0.31	<0.31	1.08	<0.31
Shrimp	<0.31	<0.31	<0.31	<0.31
Crab	<0.31	<0.31	0.62	<0.31
Squid	<0.31	<0.31	<0.31	<0.31
Beef	<0.31	<0.31	<0.31	<0.31
Pork	<0.31	<0.31	<0.31	<0.31
Chicken	<0.31	<0.31	<0.31	<0.31

This data is representative. Please contact us when you need lot data you use.

Egg : ppm ( $\mu\text{g}$  egg protein /g food), Casein : ppm ( $\mu\text{g}$  milk protein /g food)

Wheat : ppm ( $\mu\text{g}$  wheat protein /g food), Peanut : ppm ( $\mu\text{g}$  peanut protein /g food)

## Related Food Allergen Test Kits

### Food Allergen Lateral Flow IIR (qualitative)

Product	Limit of Detection
Egg (Ovalbumin) Lateral Flow IIR	5 ppm
Casein Lateral Flow IIR	5 ppm
Gluten (Gliadin) Lateral Flow IIR	5 ppm
Peanut Lateral Flow IIR	5 ppm

Egg : ppm ( $\mu\text{g}$  egg protein /g food), Casein : ppm ( $\mu\text{g}$  milk protein /g food)  
Wheat : ppm ( $\mu\text{g}$  wheat protein /g food), Peanut : ppm ( $\mu\text{g}$  peanut protein /g food)

### Contact

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