



Soy - Native Soybean

Product Code: ESSRD-48

For the detection of Soy Residues in Food Products and Environmental samples.

Intended Use

The **ELISA SYSTEMS Soy Residue** assay is an enzyme-linked immunosorbent assay (ELISA) that may be used to screen food products for the presence of soy protein material. Samples that have been subjected to prolonged high temperature and pressure treatments (such as in canning operations), hydrolysis or fermentation, may not be suitable for analysis using this test kit. Please discuss with your ELISA SYSTEMS representative regarding the suitability of this kit for these samples.

Background:

Although the incidence of allergy to soybean proteins is quite low in comparison with other major food proteins, the gradually increasing consumption of soybean products makes the identification and characterization of major soy allergens a focus of investigation.

The major allergens of soybean have not been as well characterized as peanut allergens, however, two soy proteins have been identified as antigenic. Soy Trypsin Inhibitor was chosen as the soy protein indicator for this assay because of its heat-stable properties.

Interpretation of Results:

The results are expressed in terms of soybean protein.

Please note: A special extraction solution is required for samples containing Polyphenols, including Dark Chocolate, Wine, Fruit Juices, Herbs, and Tannins. (Product code: ESADDSOL)

Controls Supplied

0, 1.0, 2.5, 5.0 ppm (mg/kg) Soy Bean Protein.

Why test for Food Allergens?

- ✓ **Brand Name Protection**
- ✓ **Prevent Costly Product Recalls**
- ✓ **Ensure Consumer Confidence**
- ✓ **Duty of Care**
- ✓ **Comply with Product Labelling Requirements.**

Allergens may occur unintentionally in foods for several reasons including:

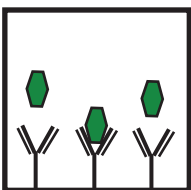
Cross-contamination of ingredients
Food preparation errors
Improper cleaning of equipment

Kits available:

Almond, Buckwheat, Beta-Lactoglobulin, Casein, Crustacean, Egg, Gliadin, Hazelnut, Lupin, Mustard, Peanut, Sesame, Soy

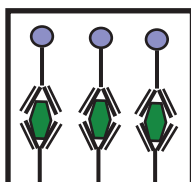
How the **ELISA SYSTEMS** Soy Residue test works:

Step 1
Sample is added



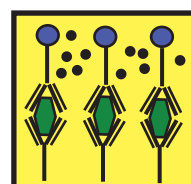
The test sample is added and if Soy residue is present, it will bind to the specific antibodies.

Step 2
Antigen-Antibody Complex



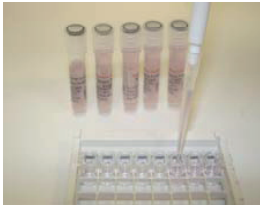
Enzyme labelled conjugate is added and binds to the captured Soy residue to form a "Sandwich".

Step 3
Coloured End-Point



TMB Substrate is added, which is converted in the presence of the Enzyme conjugate to form a blue colour if Soy residue is present in the sample. A yellow colour is formed once Acid is added to stop the reaction.

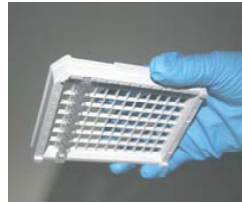
Soy Residue ELISA Protocol



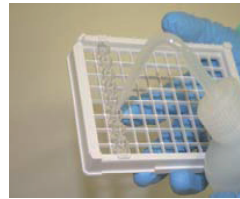
Add 100 microlitres of Standards and Samples to their allocated Antibody-coated wells. Mix all wells for 10 seconds by gentle shaking on a flat surface.

Incubate for 30 minutes for liquid products (Milk drinks, UHT Soy Milk drinks, etc.)

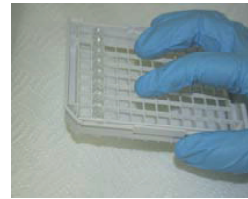
Incubate for 90 minutes for cooked products (e.g. biscuits, cookies, meats)



Dump liquid from wells.



Wash wells thoroughly five times with wash buffer.



Tap wells firmly onto absorbent paper towel.



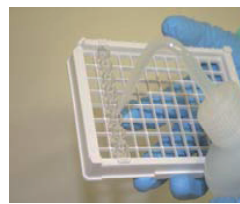
Add 100 microlitres of the Green Conjugate Solution to each well. Mix all wells for 10 seconds by gentle shaking on a flat surface.

Incubate for 15 minutes for liquid products (Milk drinks, UHT Soy Milk drinks, etc.)

Incubate for 30 minutes for cooked products (e.g. biscuits, cookies, meats)



Dump liquid from wells.



Wash wells thoroughly five times with wash buffer.



Tap wells firmly onto absorbent paper towel.



Add 100 microlitres of the Substrate Solution to each well.

Mix all wells for 10 seconds by gentle shaking on a flat surface.

Incubate for 15 minutes.

DO NOT WASH



Add 100 microlitres of the Stop Solution to each well. Mix all wells for 10 seconds by gentle shaking on a flat surface.



Read results visually, comparing with the colour of the Standards. The results can be read on a microplate/strip reader. Results must be read within 30 minutes.

Interpretation of Results

Interpretation is based on the suggested extraction/dilution protocol. Results are for screening purposes. All results should be interpreted as part of a HACCP plan for Food Allergens.

Any sample returning a positive result should be regarded as a presumptive result and confirmation or further testing should be performed.



Product Code	No. of Wells	Max No. of Tests (Depending on the number of samples and controls per run)
ESSRD-48	48	46 as a screening test (a multichannel pipette must be used to achieve maximum sample numbers)
		30+ as Quantitative test

Manufactured by **ELISA SYSTEMS Pty Ltd.**

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