

## AlerTox® Sticks Soy PLUS

<b>Cat no.</b>	KIT3097 (10 tests) and KIT3098 (25 tests)
<b>Test name</b>	AlerTox® Sticks Soy PLUS
<b>Description</b>	Immunochromatographic rapid test for qualitative determination of soy antigen in foods and kitchen and production facilities
<b>Specificity and sensitivity</b>	<p>The LOD (limit of detection) of AlerTox Sticks Soy PLUS is 1.5 ppm of soy protein. The range of detection (ROD) is 1.5 to 10,000 ppm. Above this range, the test can present a hook effect.</p> <p>On dry surfaces collected by a wet swab, the LOD is 0.15 ug of soy protein / 16 cm<sup>2</sup>.</p> <p>AlerTox Sticks Soy PLUS uses specific antibodies against beta-conglycinin.</p> <p>AlerTox Sticks Soy PLUS does NOT detect the antigens of related legumes, including pea, white bean, chickpea, peanut, lentil and lupine.</p> <p>The test is not capable of detecting the residues of soybean proteins in soy sauces prepared either by natural enzymatic degradation or by chemical treatment (acid hydrolysis). However, it shows a positive reaction in less hydrolyzed soy drinks.</p> <p>AlerTox Sticks Soy PLUS cannot detect phospholipids such as soy lecithin as it is designed to detect proteins and peptides.</p>
<b>Storage</b>	Store at 10 to 30°C (50 to 86°F)

<b>Assay procedure</b>
Designed for solid, liquid and surface samples: Refer to user manual, INS3097

# AlerTox® Sticks Soy PLUS | KIT3097 & KIT3098

## Cross-reactivity study

This test does not show any cross reactivity with:

Raw almond	Sunflower seed	Lentil
Macadamia nut	Sesame	Peas
Cashew	Buckwheat	Red bean
Walnut	Rye	Cocoa
Brazil nut	Barley	Coconut
Pecan	Wheat	Milk
Pistachio	Oat	Egg
Hazelnut	Maize flour	Raw meat (chicken)
Peanut	Lupin bean	Raw meat (beef)
Poppy seed	Whole grain	Raw fish (cod)
Pumpkin seed	Rice	Kiwi
Pine nut	Chickpea	Carrot

This test is not suitable for raw crustaceans. Invalid results can be obtained with food with low pH such as vinegar. If you wish to test vinegar, we recommend to adjust the pH above 2.

## Spiking test

Study of matrices with AlerTox Sticks Soy PLUS before (0 ppm) and after spiking them with soy proteins.

Food matrix	Soy Proteins spiked level				
	0 ppm	1.2 ppm	2.5 ppm	5 ppm	n
<b>Beverages</b>					
Juice	Negative	Positive			5
Chocolate shake	Negative	Negative	Positive		10
Red wine	Negative	Positive			5
<b>Milk products</b>					
Yogurt	Negative	Negative	Negative	Positive	2
UHT milk	Negative	Positive			20
Ice cream	Negative	Negative	Positive		2
<b>Cereal products</b>					
Infant rice formula	Negative	Positive			2
Pasta	Negative	Positive			20
Biscuits	Negative	Negative	Positive		5
<b>Soup</b>					
Soup	Negative	Negative	Negative	Positive	5
<b>Dressing</b>					
Salad dressing	Negative	Positive			5
Modena vinegar	Invalid				
<b>Crustaceans</b>					
Raw shrimp	Invalid				

Eleven different product types were analyzed separately to determine the correlation between AlerTox Sticks Soy PLUS and a commercially available ELISA against soy trypsin inhibitor. The following data was obtained:

Sample	Brand	Ingredients	AlerTox Sticks Soy PLUS
Ham pâté	EIPozo	Contains milk and soy	Positive
Almond and banana energy bar	Just Loading	Contains almond and soy. May contain egg, milk, sesame, peanut and other nuts.	Positive
Soy sauce *	Hacendado	Contains soy	Positive
Soy drink **	Hacendado	Contains soy	Positive
Ground soy bean	España Million Buyer Foods	Contains soy	Positive
Seeds, cereal and bread	Eliges	Contains wheat, sesame and soy. May contain egg, milk and nuts	Positive
Textured soy	Hacendado	Contains soy	Negative
Chocolate drops (candies)	Lacasitos SAU	Contains milk and soy lecithin	Negative
Cheese dipping sauce (Queso)	Mexifoods	Contains hydrolyzed soy	Negative
Ecological soy flour	El Granero Integral	Contains soy	Positive
Fermented soy ***	Hacendado	Contains soy	Positive

\* detected at 1,000 ppm

\*\* detected 500 ppm

\*\*\* detected at 36,000 ppm

## Participation in proficiency tests

AlerTox Sticks Soy PLUS was tested with FAPAS material 27244A (wheat flour). The assigned result for the kit with more data points on this round was 25.6 mg/kg of total soy. AlerTox Sticks Soy Plus yielded a positive result (>1.5 ppm) for this sample. Sample 2744B (wheat flour) was negative with 100% consensus and AlerTox Sticks Soy PLUS yielded a negative (<10 ppm) result.