



## SESAME-CHECK ELISA

A quantitative **SESAME ELISA** kit to assist in the determination of low levels of **SESAME** products in raw materials, environmental swabs, uncooked/cooked foods etc.

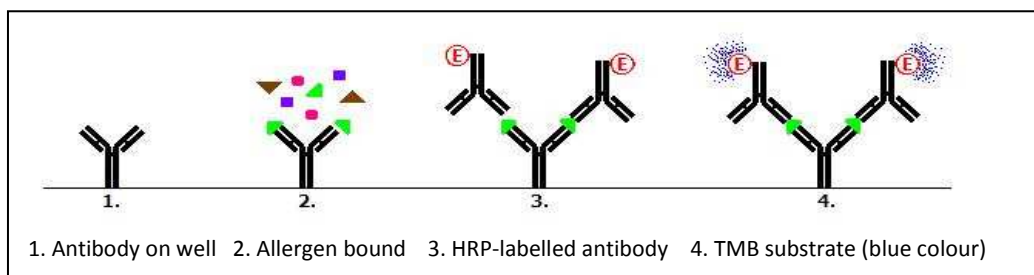
**SESAME ALLERGENS in FOOD:** Sesame (*Sesamum indicum*) is a relatively common food ingredient particularly in baked goods, confectionery and snacks such as tahini and humous. The main allergens are: *Ses i* 1 to 3 & Seed Maturation Protein. (Ref: <http://foodallergens.ifr.ac.uk/>).

A number of food allergic individuals can suffer mild to severe reactions to sesame and therefore it has been included in e.g. EC (2003/89; Annex IIIA), US (FALCPA) and other allergens legislation.

**SESAME-CHECK ELISA KITS** are designed for the measurement of sesame content nominally within a range equivalent to 2.0-20.0 PPM or above of sesame seed (Limit Of Detection 0.2PPM). The assay detects sesame protein as a marker of total sesame seed content; sesame contains ~20% protein (ref: [USDA Nutritional tables](#)) and therefore the LOD and nominal assay range correspond to ~0.04 PPM and 0.4-4 PPM sesame seed content respectively.

Food samples are firstly made homogeneous by grinding/chopping etc; a test portion of 0.5g is added to 10ml of extraction buffer and incubated at 60°C for 15 minutes (shaking every 2-3 minutes) to extract sesame protein. The extract is centrifuged or allowed to settle prior to performing the ELISA (3 x 20 min. incubation times).

### DIAGRAM OF ALLERGEN-CHECK ELISA METHODS



The prevalence of food allergies is increasing, the age at onset is decreasing and the condition can have severe effects, including breathing difficulties, anaphylaxis and in rare instances, death. Accordingly, new legislation has been put in place to ensure that allergy sufferers are informed of the presence of key food allergens. In the EC, Directives 2003/89 & 2005/26 became fully implemented in November 2005 and in the USA, the Food Allergen Labeling and Consumer Protection Act (FALCPA) came into force early in 2006; both mandate the clear labelling of particular food allergens. In the **EC** the allergens for which legislation specifically demands inclusion in the ingredient list are: celery/celeriac; cereals (wheat, rye, spelt/kamut or their hybridised strains, barley, oats); crustacea; eggs; fish; lupin; molluscs; mustard; peanuts; sesame; soya & tree nuts (almond, Brazil, cashew, hazelnut, macadamia/Queensland, pecan pistachio, walnut). In the **USA** the list is similar but excludes celery/celeriac, lupin, mollusc, mustard & sesame. Food producers are being advised by food protection agencies such as the UK's FSA and the US FDA to use best practice by restricting the use of so-called "may contain" labelling to products whose manufacturing processes have been assessed using HACCP and for which the presence of undeclared allergens is both significant and unavoidable.

#### Diagnostic Innovations Limited

Spectrum House, Llys Edmund Prys, St. Asaph Business Park, LL17 0JA, U.K.

TEL: +44(0) 1745 535 943

FAX: +44 (0) 1745 582 437

food@imutest.com

www.imutest.com/foodtesting

**ALLERGEN- & GLUTEN-CHECK ELISAs : PRODUCT OVERVIEW**

Product Name	Wells	Cat. No.	Product Description
Gluten-Check Including Extraction Kit	192	R6007-4E	Gluten (ω-gliadin) detection by ELISA (LOD <0.5ppm; range 5-110ppm gluten) INCLUDING 1 x A6017 for each 48 wells.
	96	R6006-2E	
	48	R6005-1E	
Fish-Check Including Extraction Kit	192	R6011-4E	Fish protein detection by ELISA (LOD <1ppm; range 5-125ppm cod) INCLUDING 1 x A6015 for each 48 wells.
	96	R6010-2E	
	48	R6009-1E	
Gluten-Check	192	R6007	Gluten (ω-gliadin) detection by ELISA (LOD <0.5ppm; range 5-110ppm gluten)
	96	R6006	
	48	R6005	
Fish-Check	192	R6011	Fish protein detection by ELISA (LOD <1ppm; range 5-125ppm cod)
	96	R6010	
	48	R6009	
Almond-Check*	96	R6018	Almond protein detection by ELISA (LOD <0.25ppm almond; range 0.5-10ppm almond)
	48	R6019	
β-LG/Milk-Check *	96	R6036	Beta-Lactoglobulin (milk/whey) detection by ELISA (LOD <0.1ppm Skim Milk Powder; range 0.2-7ppm)
	48	R6037	
Casein/Milk-Check	96	R6022	Casein (milk/caseins/caseinates) detection by ELISA (LOD <0.2ppm Skim Milk Powder; range 0.8-16ppm)
	48	R6023	
Crustacea-Check	96	R6026	Crustacea protein detection by ELISA (LOD 1ppb tropomyosin; range 20-400ppb)
	48	R6027	
Egg-Check*	96	R6032	Egg White protein detection by ELISA (LOD <0.2ppm Egg White Protein; range 0.4-8ppm)
	48	R6033	
Hazelnut-Check*	96	R6014	Hazelnut protein detection by ELISA (LOD <0.5ppm hazelnut; range 1-40ppm hazelnut)
	48	R6015	
Lupin-Check*	96	R6030	Lupin protein detection by ELISA (LOD <0.5ppm lupin; range 2-30ppm lupin)
	48	R6031	
Mustard-Check*	96	R6012	Mustard protein detection by ELISA (LOD 1ppm mustard; range 2-50ppm mustard)
	48	R6013	
Peanut-Check*	96	R6020	Peanut protein detection by ELISA (LOD <0.5ppm peanut; range 1-30ppm peanut)
	48	R6021	
Sesame-Check*	96	R6028	Sesame protein detection by ELISA (LOD 0.2ppm sesame; range 2-20ppm sesame)
	48	R6029	
Soya-Check*	96	R6024	Soya Trypsin Inhibitor detection by ELISA (LOD <1ppm soya; range 2-25ppm soya)
	48	R6025	
Walnut-Check*	96	R6016	Walnut protein detection by ELISA (LOD <1ppm walnut; range 2-50ppm walnut)
	48	R6017	

\* Food sample extracts from these kits are fully compatible and can be used in any other of the kits marked \*.

**NOTE:** The LOD & Range data given above refer to PPM of the commodity itself and - unless Indicated otherwise - NOT PPM of allergenic protein, for which the equivalent values are substantially lower.

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