

Real Time PCR Sesame DNA Detection Kit

Test system for the qualitative detection of sesame DNA in food products by PCR Real time

Product code: IC-02-1081 (50 tests) / IC-02-1083 (25 tests)

Brief description

SesameKit Real Time PCR provides reagents for the qualitative detection of sesame DNA in several food products, fresh and processed. The PCR Real Time kit amplifies a DNA fragment that is present solely in sesame. The amplified DNA segment is detected by hybridisation with a probe labelled with fluorescent dyes. The increase in fluorescence is continuously measured in a PCR real-time detection instrument.

Sesame is considered allergenic food and it is explicitly mentioned in the European Food Labelling Directive.

SesameKit Real Time PCR is an useful tool to monitor the food allergens to ensure compliance with food labelling (2003/89/EC Directive) and to improve consumer protection.

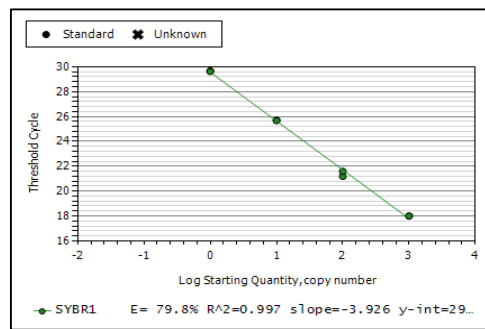
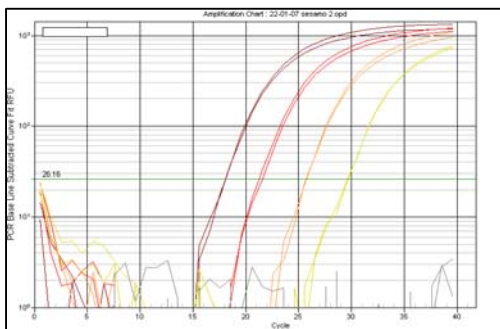


Figure 1: Test sensitivity for Sesamekit DNA Detection kit.

- 1000 copies sesame genome
- 100 copies sesame genome
- 10 copies sesame genome
- 1 copy sesame genome

Technical features

Number of tests	25/50 target DNA specific reactions
Kit components	Mix Test Sesame (with duplex inhibition control) – DNA positive control – sterile H ₂ O DNase free
Specificity	the kit has been tested with DNA extracted from raw material (<i>Sesamum indicum</i>) and processed food (sesame breadsticks). The specificity of the system has been validated with several other species normally used in food production (see the Panel below). No cross-reactivity effects have been revealed.
Limit of Detection	1 copy of sesame haploid genome, equal to roughly 0.97 pg of <i>Sesamum indicum</i> DNA (see Fig.1).
Detection	Probe labelled with fluorescent dyes Taqman® - FAM and JOE

Specificity control group tested **negative** for cross-reactivity:

Almond (<i>Prunus dulcis</i>)	Wheat (<i>Triticum turgidum durum</i>)	Pine Nut (<i>Pinus pinea</i>)
Amaranth (<i>Amaranthus cruentis</i>)	Eggplant (<i>Solanum melongena</i>)	Pistachio nut (<i>Pistacia vera</i>)
Barley (<i>Hordeum vulgare</i>)	Green Pea (<i>Pisum sativum</i>)	Plum (<i>Prunus domestica</i>)
Basil (<i>Ocimum basilicum</i>)	Hazelnut (<i>Corylus avellana</i>)	Potato (<i>Solanum tuberosum</i>)
Bean (<i>Phaseolus vulgaris</i>)	Healing Herb (<i>Medicago sativa</i>)	Pumpkin (<i>Cucurbita maxima</i>)
Black tiger prawn (<i>Penaeus monodon</i>)	Lentils (<i>Lens esculenta</i>)	Rice (<i>Oryza sativa</i>)
Brazil nut (<i>Bertholletia excelsa</i>)	Maize (<i>Zea mays</i>)	Rye (<i>Secale cereale</i>)
Bovine (<i>Bos taurus</i>)	Man (<i>Homo sapiens</i>)	Sage (<i>Salvia officinalis</i>)
Broad Bean (<i>Vicia faba</i>)	Mango (<i>Mangifera indica</i>)	Soya (<i>Glycine max</i>)
Cashew nut (<i>Anacardium occidentale</i>)	Medium Spelt (<i>Triticum turgidum dicoccum</i>)	Sunflower (<i>Helianthus annuus</i>)
Celery (<i>Apium graveolens</i>)	Mussel (<i>Mytilus chilensis</i>)	Tomato (<i>Lycopersicon esculentum</i>)
Chick Pea (<i>Cicer arietinum</i>)	Mustard (<i>Brassica alba</i>)	Walnut (<i>Juglans regia</i>)
Chicken (<i>Gallus gallus</i>)	Oat (<i>Avena sativa</i>)	Wheat (<i>Triticum aestivum aestivum</i>)
Clover (<i>Trifolium pratense</i>)	Peanut (<i>Arachis hypogaea</i>)	Yellow Lupin (<i>Lupinus albus</i>)
Codfish (<i>Gadus morhua</i>)	Pepper (<i>Capsicum annuum</i>)	