

Real Time PCR Nuts DNA Detection Kit

Test system for the qualitative detection of walnut / Pecan nut DNA in food products by PCR Real time

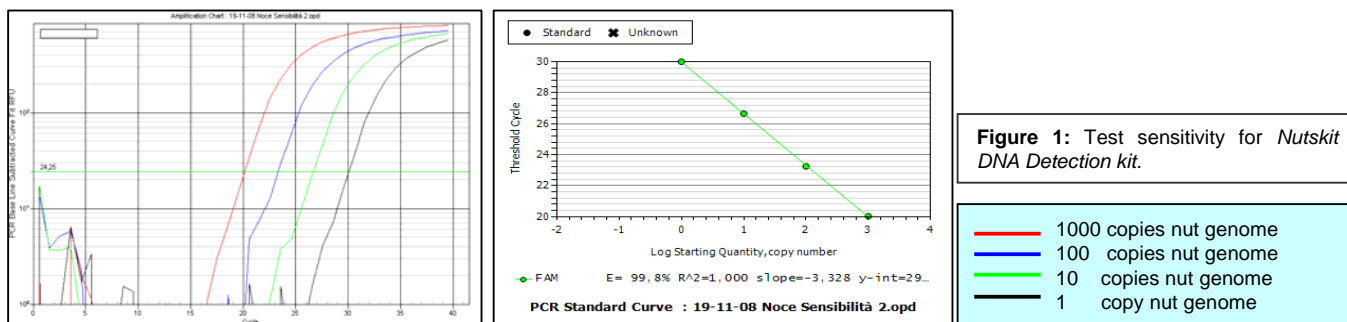
Product code: IC-02-1004 (50 tests) / IC-02-1005 (25 tests)

Brief description

NutsKit Real Time PCR provides reagents for the qualitative detection of walnut/Pecan nut DNA in several food products, fresh and processed. The PCR Real Time kit amplifies a DNA fragment that is present solely in nuts. 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.

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

NutsKit 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.



Technical features

Number of tests	25/50 target DNA specific reactions.
Kit components	Mix <i>Test Nuts</i> (with duplex inhibition control) – DNA positive control – sterile H ₂ O DNase free.
Specificity	the kit has been tested with DNA extracted from both raw material and processed food. 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 walnut (<i>Juglans regia</i>) / Pecan nut (<i>Carya illinoensis</i>) haploid genome, the reaction efficiency is optimal (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>)	Cod (<i>Merluccius capensis</i>)	Pistachio (<i>Pistacia vera</i>)
Barley (<i>Hordeum vulgare</i>)	Hazelnut (<i>Corylus avellana</i>)	Rye (<i>Secale cereale</i>)
Bovine (<i>Bos taurus</i>)	Lupin (<i>Lupinus albus</i>)	Sesame (<i>Sesamum indicum</i>)
Brazil nut (<i>Bertholletia excelsa</i>)	Man (<i>Homo sapiens</i>)	Shrimp (<i>Peneaus monodon</i>)
Cashew nut (<i>Anacardium occidentale</i>)	Mussel (<i>Mytilus chilensis</i>)	Soya (<i>Glycine max</i>)
Chicken (<i>Gallus gallus</i>)	Mustard (<i>Brassica alba</i>)	Wheat (<i>Triticum aestivum</i>)
Celery (<i>Apium graveolens</i>)	Peanut (<i>Arachis hypogaea</i>)	