

Real Time PCR Cereal Gluten DNA Detection Kit

Test system for the qualitative detection of gluten-containing cereals DNA in food products by PCR Real time

Product code: IC-02-1061 (50 tests) / IC-02-1063 (25 tests)

Brief description

GlutKit Real Time PCR provides reagents for the qualitative detection of gluten-containing cereal DNA in several food products, fresh and processed. The PCR Real Time kit amplifies a DNA fragment that is present solely in cereals containing gluten. 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.

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

GlutKit 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.

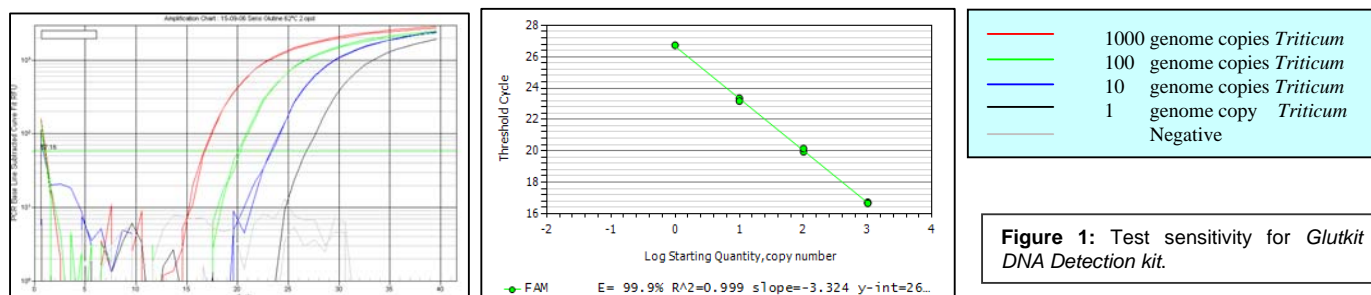


Figure 1: Test sensitivity for *Glutkit DNA Detection kit*.

Technical features

Number of tests	25/50 target DNA specific reactions
Kit components	Mix <i>Test Cereal Gluten</i> – Mix test inhibition – 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 haploid genome of gluten-containing cereals, equal to roughly 17.33 pg of <i>Triticum</i> DNA (see Fig.1).
Detection	Probe labelled with fluorescent dyes Taqman® - FAM

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

Amaranth (<i>Amaranthus spp.</i>)	Yeast (<i>Saccharomyces cerevisiae</i>)	Pistachio (<i>Pistacia vera</i>)
Cashew (<i>Anacardium occidentale</i>)	Lupin (<i>Lupinus albus</i>)	Chicken (<i>Gallus gallus</i>)
Peanut (<i>Arachis hypogaea</i>)	Maize (<i>Zea mays</i>)	Tomato (<i>Lycopersicon esculentum</i>)
Bovine (<i>Bos taurus</i>)	Almond (<i>Prunus dulcis</i>)	Quinoa (<i>Chenopodium quinoa</i>)
Caffè arabica (<i>Coffea arabica</i>)	Cod (<i>Merluccius capensis</i>)	Rice (<i>Oryza sativa</i>)
Chestnut (<i>Castanea sativa</i>)	White mile, red mile (<i>Panicum miliaceum</i>)	Celery (<i>Apium graveolens</i>)
Chickpea (<i>Cicer arietinum</i>)	Hazelnut (<i>Corylus avellana</i>)	Mustard (<i>Brassica alba</i>)
Mussel (<i>Mytilus chilensis</i>)	Walnut (<i>Juglans regia</i>)	Sesame (<i>Sesamum indicum</i>)
Bean (<i>Phaseolus vulgaris</i>)	Brasilian walnut (<i>Bertholletia excelsa</i>)	Soy (<i>Glycine max</i>)
Black tiger prawn (<i>Peneaus monodon</i>)	Potata (<i>Solanum tuberosum</i>)	Sorghum (<i>Sorghum bicolor</i>)
Wheat buckwheat (<i>Fagopyrum esculentum</i>)	Pea (<i>Pisum sativum</i>)	Clover (<i>Trifolium pratense</i>)
Lentils (<i>Lens esculenta</i>)		Man (<i>Homo sapiens sapiens</i>)