

MOLLUSKIT Real Time PCR

Real Time PCR Mollusc DNA Detection Kit

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

Product code: IC-02-1008 (50 tests) / IC-02-1009 (25 tests)

Brief description

MollusKit Real Time PCR provides reagents for the qualitative detection of mollusc DNA in several food products, fresh and processed. The PCR Real Time kit amplifies a DNA fragment that is present solely in mollusc. 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.

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

MollusKit 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.

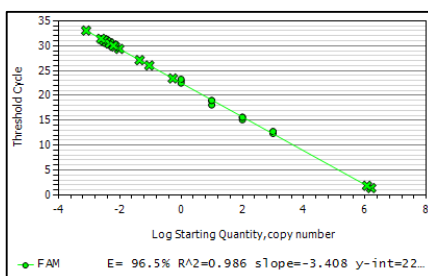
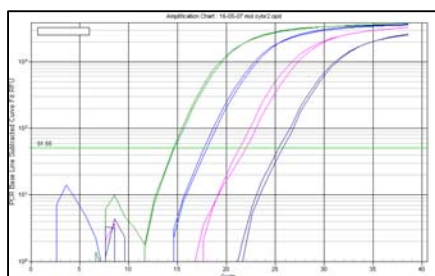


Figura 1: test sensitivity for *Molluskit DNA* Detection kit.

— 1000 genome copies *Mytilus galloprovincialis*
 — 100 genome copies *Mytilus galloprovincialis*
 — 10 genome copies *Mytilus galloprovincialis*
 — 1 Genome copies *Mytilus galloprovincialis*

Technical features

Number of tests	25/50 target DNA specific reactions
Kit components	Mix <i>Test Mollusc</i> – Mix test inhibition - DNA positive control – sterile H ₂ O DNase free
Specificity	the kit has been tested with DNA extracted from several mollusc species. 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 mollusc haploid genome, equal to roughly 1.6 pg of <i>Mytilus galloprovincialis</i> DNA (see Fig.1).
Detection	SYBR Green

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

Cashew (<i>Anacardium occidentale</i>)	Lentils (<i>Lens esculenta</i>)	Oregano (<i>Origanum vulgare</i>)
Peanut (<i>Arachis hypogea</i>)	Lupin (<i>Lupinus albus</i>)	Swordfish (<i>Xiphias gladius</i>)
Pink spiny lobster (<i>Palinurus mauritanicus</i>)	Corn (<i>Zea mays</i>)	Green Pea (<i>Pisum sativum</i>)
American lobster (<i>Homarus americanus</i>)	Almond (<i>Prunus dulcis</i>)	Pistachio (<i>Pistacia vera</i>)
Bovine (<i>Bos taurus</i>)	Chilean snow-crab (<i>Paralomis granulosa</i>)	Chicken (<i>Gallus gallus</i>)
Broccoli (<i>Brassica oleracea convar.botrytis cult italica</i>)	Brown edible crab (<i>Cancer pagurus</i>)	Tomato (<i>Lycopersicon esculentum</i>)
Carrot (<i>Daucus carota</i>)	European hare (<i>Lepus europeus</i>)	Rice (<i>Oryza sativa</i>)
Common carp (<i>Cyprinus carpio</i>)	Hazelnut (<i>Corylus avellana</i>)	Celery (<i>Apium graveolens</i>)
Goat (<i>Capra hircus</i>)	Walnut (<i>Juglans regia</i>)	Smooth-hound (<i>Mustelus mustelus</i>)
Horse (<i>Caballus caballus</i>)	Brazilian walnut (<i>Bertholletia excelsa</i>)	Mustard (<i>Brassica alba</i>)
Northern shrimp (<i>Pandalus borealis</i>)	Gilthead sea-bream (<i>Sparus aurata</i>)	Sesame (<i>Sesamum indicum</i>)
Red swamp crawfish (<i>Procambarus clarkii</i>)	Lemon (<i>Citrus limon</i>)	Soya (<i>Glycine max</i>)
Giant tiger prawn (<i>Peneaus monodon</i>)	Potato (<i>Solanum tuberosum</i>)	Swine (<i>Sus scrofa</i>)
Weath (<i>Triticum aestivum</i>)	Smooth-hound (<i>Mustelus mustelus</i>)	Tuna fish (<i>Thunnus albacares</i>)
Blue and red shrimp (<i>Aristeus antennatus</i>)	Pepper (<i>Capsicum annum</i>)	Man (<i>Homo sapiens sapiens</i>)
	Aubergine (<i>Solanum melongena</i>)	European plaice (<i>Pleuronectes platessa</i>)
	Shallow-water Cape hake (<i>Merluccius capensis</i>)	Zucchini (<i>Cucurbita pepo</i>)
	Atlantic salmon (<i>Salmo salar</i>)	Parsley (<i>Petroselinum crispum</i>)
	Norway lobster (<i>Nephrops norvegicus</i>)	Garden rocket (<i>Eruca sativa</i>)
		Thyme (<i>Thymus vulgaris</i>)