

## Real Time PCR Almond DNA Detection Kit

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

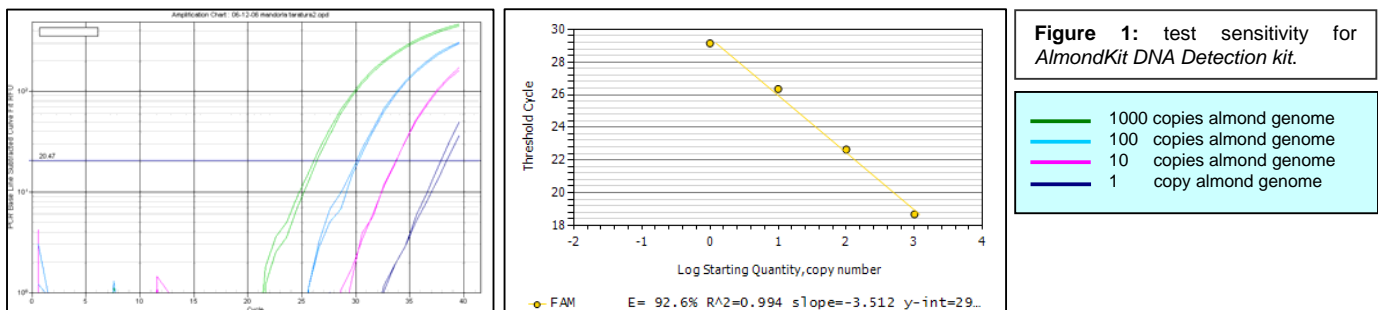
Product code: IC-02-1051 (50 tests) / IC-02-1053 (25 tests)

#### Brief description

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

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

**AlmondKit 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

<b>Number of tests</b>	25/50 target DNA specific reactions.
<b>Kit components</b>	Mix <i>Test Almond</i> (with duplex inhibition control) – DNA positive control – sterile H <sub>2</sub> O DNase free.
<b>Specificity</b>	the kit has been tested with DNA extracted from raw material ( <i>Prunus dulcis</i> ) and processed food (biscuits containing up to 0.01% of almond). 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.
<b>Limit of Detection</b>	1 copy of almond haploid genome, equal to roughly 0.3 pg of <i>Prunus dulcis</i> DNA (see Fig.1).
<b>Detection</b>	Probe labelled with fluorescent dyes Taqman® - FAM and JOE

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

Apricot ( <i>Prunus armeniaca</i> )	Shrimp ( <i>Peneaus monodon</i> )	Pear ( <i>Pyrus communis</i> )
Black cherry ( <i>Prunus cerasus</i> )	Raspberry ( <i>Rubus idaeus</i> )	Peach ( <i>Prunus persica</i> )
Cashew ( <i>Anacardium occidentale</i> )	Lemon ( <i>Citrus limon</i> )	Pea ( <i>Pisum sativum</i> )
Peanut ( <i>Arachis hypogea</i> )	White Lupin ( <i>Lupinus albus</i> )	Pistachio ( <i>Pistacia vera</i> )
Bovine ( <i>Bos taurus</i> )	Maize ( <i>Zea mays</i> )	Chicken ( <i>Gallus gallus</i> )
Cickpea ( <i>Cicer arietinum</i> )	Apple ( <i>Malus domestica</i> )	Plum ( <i>Prunus domestic</i> )
Cherry ( <i>Prunus avium</i> )	Cod ( <i>Merluccius capensis</i> )	Celery ( <i>Apium graveolens</i> )
Coconut ( <i>Cocos lucifera</i> )	Blackberry ( <i>Rubus fruticosus</i> )	Rye ( <i>Secale cereale</i> )
Mussel ( <i>Mytilus chilensis</i> )	Hazelnut ( <i>Corylus avellana</i> )	Mustard ( <i>Brassica alba</i> )
Bean ( <i>Phaseolus vulgaris</i> )	Walnut ( <i>Juglans regia</i> )	Sesame ( <i>Sesamum indicum</i> )
Fig ( <i>Ficus carica</i> )	Brazilian nut ( <i>Bertholletia excelsa</i> )	Soya ( <i>Glycine max</i> )
Soft Wheat ( <i>Triticum aestivum</i> )	Barley ( <i>Hordeum vulgare</i> )	Man ( <i>Homo sapiens sapiens</i> )