

CarnoCheck®









DNA-Chip for qualitative detection of 8 animal species in meat food products

CarnoCheck® is a DNA based microarray for the determination of animal constituents which allows a rapid and reliable quality control of food products and thus strengthens the confidence of the consumer. With CarnoCheck® eight different animal species can be unequivocally and reliably identified in raw, cooker preserved, boiled or fully preserved ($F \leq 3,4$), meat food products. The low limit of detection (0.25 – 1 %, depending on the processing) permits the identification of even small traces of animal constituents.

CarnoCheck® means:

- The detailed control of meat containing food
- DNA based assay for the simultaneous detection of all 8 animal species
- Parallel processing of up to six samples due to an innovative chip carrier design
- Complete kit with DNA-chips and solutions for 30 investigations
- Rapid digital evaluation and archiving of the results
- Validation by external food and research institutes ^{1,2}

Animal species detectable with CarnoCheck®:

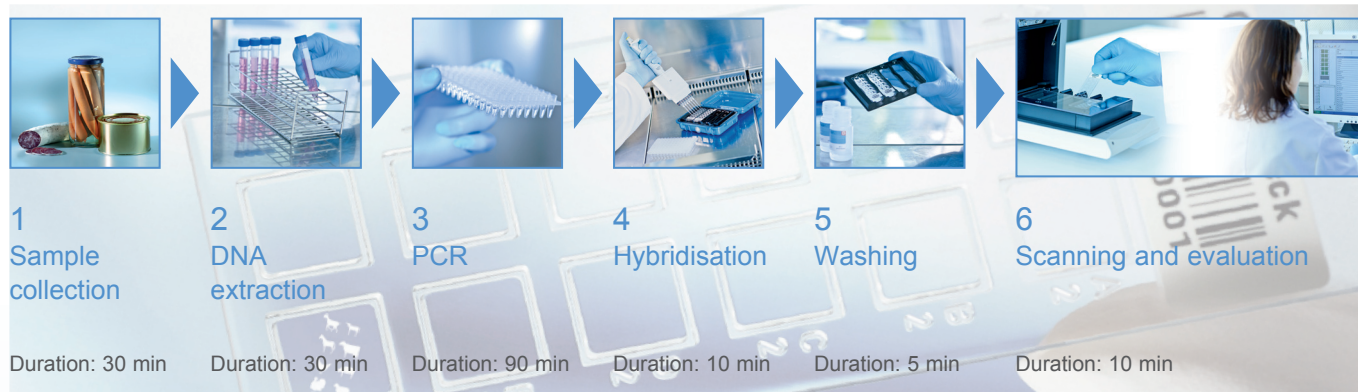
➤ Donkey (<i>Equus asinus</i>)		➤ Cow (<i>Bos taurus</i>)	
➤ Chicken ^{*)} (<i>Gallus gallus</i>)		➤ Sheep (<i>Ovis aries</i>)	
➤ Horse (<i>Equus caballus</i>)		➤ Pig (<i>Sus scrofa</i>)	
➤ Turkey (<i>Meleagris gallopavo</i>)		➤ Goat (<i>Capra hircus</i>)	

^{*)} In case of detection of a chicken species, the presence of duck species cannot be excluded.

¹ Iwobi AZ, Huber I, Hauner G, Miller A, Busch U. Biochip Technology for the Detection of Animal Species in Meat Products. Food Analytical Methods. 2011;4(3):389-398.

² Stüber E, Sperner B, Fredriksson-Ahomaa M, Stolle A. Comparison of three commercial test kits for species identification in scalding sausages. Archiv für Lebensmittelhygiene. 2008;59:84-91.

CarnoCheck® working schedule - identification within three hours



CarnoCheck® is a microarray-based test kit for the detection of species specific differences in the sequence of the *cytochrome b* gene. Prior amplification of the species specific *cytochrome b* gene with only one single PCR primer pair, the sample must be homogenised and the genomic DNA extracted. Species differentiation is accomplished by the hybridisation of the fluorescently labelled PCR products to the CarnoCheck® microarrays. Each microarray contains replicates of species specific probes and a sophisticated set of internal and external controls making CarnoCheck® a robust and reliable DNA based detection system. Even more product safety is added due to the automatic digital evaluation and report generation, which practically excludes false-positive and false-negative results.

CarnoCheck® is offered as a complete “ready-to-use” kit and includes the CarnoCheck® DNA-Chips, the PCR-Master-Mix (fluorescently marked PCR-primers, nucleotide-mix, reaction buffer), buffers for the hybridisation (hybridisation and washing buffer), an evaluation software, and a detailed handbook.

Ordering Information

Cat. No.	Product Description	Tests per kit
462 030	CarnoCheck® Test kit for the identification of 8 animal species	30