

# PCR Kits Product List

2012 - V1



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## DNA Extraction and Electrophoresis

Different DNA extraction kits are available: The *DNAExtractor* is buffer-based and especially recommended for rather inhomogenous samples, The *DNAExtractor Clean* kit includes an additional sephacryl column cleaning step, it is recommended for soy products and grains in general. Furthermore, there is the *DNAExtractor Fat* kit for DNA extraction from emulsifiers (lecithin), oils and fats. The *GENESpin* kit is very convenient to use for all kind of food, feed and even bacterial cultures. Generally, for real-time PCR applications, the DNA purification step (*Clean* kits) is recommended.

5224400605	<i>GENESpin</i>	DNA extraction kit for 50 food, feed or bacteria samples
5224400621	<i>GENESpin Clean 100</i>	DNA extraction and purification kit for 100 samples
5224701901	Additional lysis buffer for <i>GENESpin</i>	1000 mL
5224700610	<i>DNAExtractor</i>	DNA extraction kit for 50 seed, grain, food or feed samples (solvents not incl.)
5224700205	Additional lysis buffer for <i>DNAExtractor</i>	500 mL
5224700821	<i>DNAExtractor Clean 100</i> (with 100 DNA cleaning columns)	DNA extraction and purification kit for 100 samples, solvents not incl.
5224700310	DNA cleaning columns	100 DNA cleaning columns
5224700710	<i>DNAExtractor Fat</i> for lecithin, oil and fat	DNA extraction kit for 60 oil, fat or lecithin samples, solvents not incl.
5224700711	<i>DNAExtractor Fat Clean</i> for lecithin, oil and fat	DNA extraction kit for 60 samples with 100 DNA purification columns, solvents not incl.
5224700110	Special lysis buffer for lecithin, oil and fat for use with <i>DNAExtractor Fat</i>	2 x 50 mL
5224700910 <b>NEW!!!</b>	<i>DNAExtractor Honey</i> (Qiagen/Retsch Tissue Lyser® needed)	DNA extraction kit for 50 honey/pollen samples
5224700911 <b>NEW!!!</b>	<i>DNAExtractor Honey Clean 100</i> (Qiagen/Retsch Tissue Lyser® needed)	DNA extraction and purification kit for 100 honey/pollen samples
5217720401	DNA Length Standard pUC18 HAIII size marker 26 – 501 bp	500 µL, 0.05 µg/µL
5216700201	<b>RNase</b>	5 mg/mL, 0.5 mL
5216700101	<b>Proteinase K</b>	20 µg/mL, 750 µL

## Qualitative real-time PCR GMOs and plant species

Cat #	Item	Description
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### GMOScreen Kits for real-time PCR

Our most convenient and economic approach to GMO screening: Duplex or Multiplex PCR for comprehensive GMO screenings. The kits contain all reagents and controls needed.

Please check the required filter sets for your RT-PCR machine.

Excel® evaluation sheets are available on request.

5421220301	<b>GMOScreen RT IPC (LR) 35S/NOS/FMV, for ABI 7500 Fast</b>	96 RT-PCR reactions, up to 44 samples per plate. Validated for use on ABI 7500 Fast. Screening of pFMV, p35s and tNOS in a single tube with internal positive control (IPC).
5421220311 <b>NEW!!!</b>	<b>10 x GMOScreen RT IPC (LR) 35S/NOS/FMV, for ABI 7500 Fast</b>	10 x 5421220301
5421220302	<b>GMOScreen RT IPC (NR) 35S/NOS/FMV for LC 480 and MX3005P</b>	96 RT-PCR reactions, up to 44 samples per plate. Validated for use on Agilent (Stratagene) MX3005P and Roche LC480 (for LC480 color compensation required, see below). Screening of pFMV, p35s and tNOS in a single tube, with internal positive control (IPC).
5421220312 <b>NEW!!!</b>	<b>10 x GMOScreen RT IPC (NR) 35S/NOS/FMV for LC 480 and MX3005P</b>	10 x 5421220302
5421220001	<b>GMOScreen RT IPC (LR) 35S/NOS</b>	96 RT-PCR reactions, up to 44 samples per plate. Validated for use on ABI 7500/7500 Fast, Agilent (Stratagene) MX3005P (MX3000P), Roche LC480 (color compensation required, see below). Dyes: FAM, Cy5, HEX. Screening in a single tube with internal positive control (IPC).
5421220002	<b>GMOScreen RT 35S/IPC and NOS/IPC (LR/HR+)</b>	2 x 96 RT-PCR reactions, for up to 40 samples. For use on low-ROX and high-ROX cyclers with FAM and VIC filters.
5421220303 <b>NEW!!!</b>	<b>GMOScreen RT 35S/IPC and NOS/IPC and FMV/IPC (LR/HR+)</b>	3 x 96 RT-PCR reactions, for up to 40 samples. For use on low-ROX and high-ROX cyclers with FAM and VIC filters.
5421210028	<b>GMOScreen LC 35S/NOS</b>	2 x 128 RT-PCR reactions for p35s and tNOS detection on LightCycler™ (Roche)
5427200101	<b>GMOScreen RT – Color Compensation Analysis on LC480</b>	Kit needed prior to first use of a GMOScreen RT kits on LC480
5421225001 <b>NEW!!!</b>	<b>GMOScreen RT IPC (LR/HR+) bar/pat</b>	96 RT-PCR reactions, up to 44 samples per plate. Duplex-screening with internal positive control (IPC) for inhibition control.

### SpeciesIdent Kits for real-time PCR

5421229001	<b>SpeciesIdent RT (LR/HR+) Corn/Maize Species</b>	96 rxns for corn/maize species detection (hmgA gene). All reagents and controls included.
5421229101	<b>SpeciesIdent RT (LR/HR+) Soy Species</b>	96 rxns for soy species detection (Ie1 gene). All reagents and controls included.
5421229201 <b>NEW!!!</b>	<b>SpeciesIdent RT (LR/HR+) Rapeseed Species</b>	96 rxns for rapeseed species detection (ACCCase gene). All reagents and controls included.

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## GMOIdent RT Kits LR + HR (qualitative real-time PCR)

The **GMOIdent** RT product line enables you to identify and/or exclude single GMO varieties in your sample with real-time PCR on many RT cyclers. The **GMOIdent** RT kits contain reagents and controls for 96 RT-PCR rxns. Many kits contain an internal positive control (IPC).

Most kits employ the GMO PCR systems from the official European EURL methods. The kits are validated for use on ABI 7900, 7500 Fast, and Agilent MX3005P and can beyond this be used on most RT-PCR instruments (LR and HR).

### Corn

5421223101	<b>GMOIdent</b> RT Bt176 Corn	Kit for modification-specific detection of <b>Bt176 corn</b>
5421223201	<b>GMOIdent</b> RT Event Bt11 Corn	Kit for event-specific detection of <b>Bt11 corn</b>
5421223301	<b>GMOIdent</b> RT (IPC) Event T25 Corn	Kit for event-specific detection of <b>T25 corn</b> with internal positive control
5421221001	<b>GMOIdent</b> RT (IPC) Event NK603 Corn	Kit for event-specific detection of <b>NK603 corn</b> with internal positive control
5421221101	<b>GMOIdent</b> RT (IPC) Event MIR604 Corn	Kit for event-specific detection of <b>MIR604 corn</b> with internal positive control
5421221201	<b>GMOIdent</b> RT (IPC) Event DAS-59122-7 Corn	Kit for event-specific detection of <b>Herculex™ RW DAS-59122-7 corn</b> with int. positive control
5421222401	<b>GMOIdent</b> RT (IPC) Event TC1507 Corn	Kit for event-specific detection of <b>Herculex™ I TC1507 corn</b> with int. positive control
5421221501	<b>GMOIdent</b> RT (IPC) Event MON810 Corn	Kit for event-specific detection of <b>MON810 corn</b> with internal positive control
5421221601	<b>GMOIdent</b> RT (IPC) Event MON89034 Corn	Kit for specific detection of <b>MON89034 corn</b> with internal positive control
5421221701	<b>GMOIdent</b> RT (IPC) Event MON863 Corn	Kit for specific detection of <b>MON863 corn</b> with internal positive control
5421221801	<b>GMOIdent</b> RT (IPC) Event MON88017 Corn	Kit for specific detection of <b>MON88017 corn</b> with internal positive control
5421222501	<b>GMOIdent</b> RT (IPC) Event GA21 Corn	Kit for event-specific detection of <b>GA21 corn</b> with internal positive control
5421224801 <b>NEW!!!</b>	<b>GMOIdent</b> RT Event MIR162 Corn	Kit for event-specific detection of <b>MIR162 corn</b>
5421224901 <b>NEW!!!</b>	<b>GMOIdent</b> RT (IPC) Event 3272 Corn	Kit for event-specific detection of <b>3272 corn</b> with internal positive control

### Soy

5421221301	<b>GMOIdent</b> RT (IPC) Event A2704-12 Soy	Kit for event-specific detection of <b>LibertyLink™ A2704-12 soy</b> with internal positive control
5421221901	<b>GMOIdent</b> RT (IPC) Event MON89788 Soy	Kit for event-specific detection of <b>RR2Yield MON89788 soy</b> with internal positive control
5421222301	<b>GMOIdent</b> RT (IPC) RoundupReady™ Soy	Kit for modification-specific detection of <b>RoundupReady™ MON4032-6 soy</b> with internal positive control
5421222701	<b>GMOIdent</b> RT (IPC) Event DP-305423-1 Soy	Kit for event-specific detection of <b>DP-305423-1 soy</b> with internal positive control
5421223701	<b>GMOIdent</b> RT Event A5547-127 Soy	Kit for event-specific detection of <b>LibertyLink™ A5547-127 soy</b>

Cat #	Item	Description
<b>GMOldent RT Kits LR + HR (qualitative real-time PCR)</b>		
<b>Cotton</b>		
5421222901	<b>GMOldent RT Event MON1445 Cotton</b>	Kit for event-specific detection of <b>RoundupReady™ (MON1445) cotton</b>
5421223401	<b>GMOldent RT Event MON88913 Cotton</b>	Kit for event-specific detection of <b>RR Flex (MON88913) cotton</b>
5421223901	<b>GMOldent RT Event MON531 Cotton</b>	Kit for event-specific detection of <b>Bollgard™ (MON531/MON15985) cotton</b>
5421224001	<b>GMOldent RT Event MON15985 Cotton</b>	Kit for event-specific detection of <b>Bollgard™ (MON531/MON15985) cotton</b>
5421224101	<b>GMOldent RT Event LLcotton25 Cotton</b>	Kit for event-specific detection of <b>LLotton25™ cotton</b>
5421224501 <b>NEW!!!</b>	<b>GMOldent RT Event 281-24-236 Cotton</b>	Kit for event-specific detection of <b>281-24-236 cotton</b>
5421224601 <b>NEW!!!</b>	<b>GMOldent RT Event 3006-210-23 Cotton</b>	Kit for event-specific detection of <b>3006-210-23 cotton</b>
5421224701 <b>NEW!!!</b>	<b>GMOldent RT Event GHB614 Cotton</b>	Kit for event-specific detection of <b>GHB614 cotton</b>
<b>Flax</b>		
5421222601	<b>GMOldent RT (IPC) FP967 Flax</b>	Kit for modification-specific detection of <b>CDC Triffid™ flax/linseed</b> with internal pos. control
<b>Potato</b>		
5421223601	<b>GMOldent RT Event EH92-527-1 Potato</b>	Kit for event-specific detection of <b>Amflora™ EH92-527-1 potato</b>
<b>Rapeseed</b>		
5421223501	<b>GMOldent RT (IPC) Event T45 Canola</b>	Kit for event-specific detection of <b>LibertyLink™ T45 rapeseed</b> with internal positive control
5421224201	<b>GMOldent RT Event MS8 Rapeseed</b>	Kit for event-specific detection of <b>MS8 rapeseed</b>
5421224301	<b>GMOldent RT Event Rf3 Rapeseed</b>	Kit for event-specific detection of <b>Rf3 rapeseed</b>
5421224401	<b>GMOldent RT Event RT73 Rapeseed</b>	Kit for event-specific detection of <b>RoundupReady™ RT73 rapeseed</b>
<b>Rice</b>		
5421222001	<b>GMOldent RT Event LL62 Rice</b>	Kit for event-specific detection of <b>LL62 rice</b>
5421222101	<b>GMOldent RT Event LL601 Rice</b>	Kit for event-specific detection of <b>LL601 rice</b>
5221103801	<b>GMOldent RT LibertyLink™ Rice</b>	Kit for detection (96 rxns) of <b>LibertyLink™</b> varieties (p35s/bar) in rice
5221103809	<b>GMOldent RT LibertyLink™ Rice (with species control)</b>	Kit 5221103801 plus rice species control (192 rxns; 96 rxns each)
5421221401	<b>GMOldent RT Bt Rice</b>	Kit for detection (96 rxns) of <b>Bt63</b> rice in rice samples (method by Mäde et al.)
5421221409	<b>GMOldent RT Bt Rice (with species control)</b>	5421221401 plus rice species control (192 rxns; 96 rxns each)

Cat #	Item	Description
<b>GMOIdent RT Kits LR + HR (qualitative real-time PCR)</b>		
<b>Sugarbeet</b>		
5421222801	<b>GMOIdent RT (IPC) Event H7-1 Sugarbeet</b>	Kit for event-specific detection of <b>H7-1 sugarbeet</b> with internal positive control

## Conventional PCR GMO and plant species

### SpeciesIdent Kits for gel-based PCR

With the *SpeciesIdent* product line, plant species as potential GMO sources and natural occurrence of the virus CaMV (source of the 35s promoter) can be detected/excluded. The kits contain all reagents and controls for conventional PCR.

5222104010	<b>SpeciesIdent Cotton</b>	Kit for cotton species DNA detection. Premaster and control DNA for 100 rxns
5222104110	<b>SpeciesIdent Soy</b>	Kit for soy species DNA detection. Premaster and control DNA for 100 rxns
5222104210	<b>SpeciesIdent Corn/Maize</b>	Kit for corn/maize species DNA detection. Premaster and control DNA for 100 rxns
5222103620	<b>SpeciesIdent CaMV</b>	Kit for Cauliflower Mosaic Virus reverse transcriptase gene detection. Premaster and control DNA for 100 rxns

### GMOScreen Kits for gel-based PCR

The *GMOScreen* product line is designed for a basic approach to GMO testing: it offers several combination of screening elements. All kits contain all reagents and controls needed.

5221105610	<b>GMOScreen 35S/NOS/FMV</b>	Kit for a general screening for GMO in food/feed: detection of the CaMV 35s promoter, the <i>A. tumefaciens</i> nos terminator, the FMV 34s promoter and plant chloroplast DNA as control. Premasters for 100 rxns each, control DNA and gel length marker incl.
5221105010	<b>GMOScreen 35S/NOS</b>	Kit for a general screening for GMO in DNA from food/feed: detection of CaMV 35s promoter and nos terminator and plant chloroplast DNA. Premaster and control DNA for 100 rxns each, gel length marker incl.
5221105005	<b>GMOScreen 35S/NOS</b>	like 5221105010, but with 50 rxns each
5221104420	<b>GMOScreen Rapeseed</b>	Kit for a comprehensive GMO screening in rapeseed samples: detection of nos terminator, pat(syn) gene, Laurical™ and Roundup Ready™ rapeseed with <i>Brassica</i> control reaction. Premasters for 50 rxns each, control DNAs and gel length marker included.



Cat #	Item	Description
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## GMOIdent Kits (gel-based PCR kits)

The **GMOIdent** product line enables you to identify and/or exclude single GMOs in your sample. The **GMOIdent** kits are designed for conventional PCR and contain control DNA and premasters for GMO and species testing, and a length standard for gel electrophoresis.

5221102309	<b>GMOIdent RoundupReady™ Soy</b>	Kit for modification-specific detection of Roundup Ready™ soy and soy DNA (Ie1) control, 2 x 100 rxns
5221102909	<b>GMOIdent Combi Corn</b>	Kit for detection of Bt11/Bt10, Bt176, MON810 and LibertyLink™ / T25 corn, with corn (hmgA) control PCR, 100 rxns each
5221104309	<b>GMOIdent Corn Comprehensive</b>	Kit for detection of Bt11/Bt10, event Bt11, Bt176, MON810, LL, T25, MON863, GA21, NK603, TC1507 and DAS-59122-7 corn, <b>50 reactions each</b> and 100 rxns corn (hmgA) control PCR
5221105709 <b>NEW!!!</b>	<b>GMOIdent GM Corn</b>	Kit for detection of Bt11, Bt176, MON810, LL, T25, MON863, GA21, NK603, TC1507, DAS-59122-7, MON88017/MON89034, MIR162/MIR604/3272, <b>50 rxns each</b> and 100 rxns corn (hmgA) control PCR
5221102409	<b>GMOIdent Maximizer™ Bt176 Corn</b>	Kit for modification-specific detection of Bt176 corn with corn DNA (hmgA) control PCR, 2 x 100 rxns
5221102509	<b>GMOIdent Bt11/Bt10 Corn</b>	Kit for modification-specific detection of Bt11 and Bt10 corn with corn DNA (hmgA) control PCR, 2 x 100 rxns
5221104109	<b>GMOIdent Event Bt11 Corn</b>	Kit for event-specific detection of Bt11 corn with corn DNA (hmgA) control PCR, 2 x 100 rxns
5221102609	<b>GMOIdent LibertyLink™ and T25 Corn</b>	Kit for detection of Liberty-Link™ corn and specific det. of T25 corn with corn control PCR, 100 rxns each
5221102709	<b>GMOIdent Event MON810 Corn</b>	Kit for event-specific detection of MON810 corn with corn DNA (hmgA) control PCR, 100 rxns each
5221104709	<b>GMOIdent MON88017/MON89034 Corn</b>	Kit for modification-specific detection of MON88017 and MON89034 corn w. corn contr. PCR, 2 x 100 rxns
5221104809	<b>GMOIdent Event NK603 Corn</b>	Kit for event-specific detection of NK603 corn with corn control PCR, 2 x 100 rxns
5221104909	<b>GMOIdent Event MON863</b>	Kit for event-specific detection of MON863 corn with corn control, 2 x 100 rxns
5221103009	<b>GMOIdent RoundupReady™ GA21 Corn</b>	Kit for modification-specific detection of GA21 corn with corn DNA (hmgA) control PCR, 2 x 100 rxns
5221103209	<b>GMOIdent Event TC1507 Corn</b>	Kit for event-specific detection of Herculex™ I TC 1507 corn with corn DNA (hmgA) control PCR, 2 x 100 rxns
5221104209	<b>GMOIdent Event DAS-59122-7 Corn</b>	Kit for event-specific detection of Herculex™ Rootworm DAS-59122-7 corn with (hmgA) PCR
5221102809	<b>GMOIdent StarLink™ Corn</b>	Kit for specific detection of StarLink™ CBH351 corn with corn DNA (hmgA) control PCR, 2 x 100 rxns
5221103309	<b>GMOIdent Sunup™ Papaya</b>	Kit for modification-specific detection of Sunup™/Rain-bow™ papaya with papaya control PCR, 2 x 100 rxns
5221103701	<b>GMOIdent Mini-Kit Bt63 Rice</b>	Kit for mod.-specific detection of Bt63 rice (100 rxns cry1Ac/NOS) in rice samples ( <b>w/o species control!</b> )
5221105101	<b>GMOIdent Mini-Kit FP967 Flax</b>	Kit for mod.-specific detection of CDC Triffid™ flax (100 rxns) ( <b>w/o species control!</b> )
5221105201	<b>GMOIdent Mini-Kit SeedLink™ Canola</b>	Kit for mod.-specific detection of SeedLink™ rapeseed (100 rxns) ( <b>w/o species control!</b> )



## Control DNA GMOs

Cat #	Item	Packaging
<b>Control DNA</b>		
<b>Control DNA for use with GMODent kits</b>		
5211500601	Genomic DNA Roundup Ready™ Soy	(100 copies/μL) 0.15 mL
5211500701	Genomic DNA Maximizer™ Bt176 Corn	(100 copies/μL) 0.15 mL
5211501001	Genomic DNA Bt11 Corn	(100 copies/μL) 0.15 mL
5211500801	Genomic DNA LibertyLink™ T25 Corn	(100 copies/μL) 0.15 mL
5211500901	Genomic DNA YieldGard™ MON810 Corn	(100 copies/μL) 0.15 mL
5211502301	Genomic DNA MaxGard™ MON863 Corn	(100 copies/μL) 0.15 mL
5211501301	Genomic DNA StarLink™ CBH351 Corn	(100 copies/μL) 0.15 mL
5211501201	Genomic DNA Roundup Ready™ GA21 Corn	(100 copies/μL) 0.15 mL
5211504401	Plasmid DNA pGSE539nat (NK603 Corn)	(100 copies/μL) 0.15 mL
5211507101	Genomic DNA Herculex™ I TC 1507 Corn, 10% GMO (from ERM BF418d)	(100 copies GMO/μL) 0.15 mL
5211507201	Genomic DNA Herculex™ RW DAS-591227 Corn, 10% GMO (from ERM BF424b)	(100 copies GMO/μL) 0.15 mL
5211506401	Genomic DNA MIR604 Corn DNA, 10% GMO (from ERM BF-423d)	(100 copies GMO/μL) 0.15 mL
5211504701	Plasmid DNA pGSE547nat (Sunup™ Papaya)	(100 copies/μL) 0.15 mL
5211505001	Plasmid DNA pGSE28 (Bt63 Rice, EURL recommended method)	(100 copies/μL) 0.15 mL
5211508501	Plasmid DNA pGSE219 (LL62 Rice, EURL method)	(100 copies/μL) 0.15 mL
5211505401	Plasmid DNA pGSE220 (LL601 Rice, EURL method)	(100 copies/μL) 0.15 mL
5211501701	Genomic DNA RT73 Canola	(100 copies/μL) 0.15 mL
5211501601	Genomic DNA LibertyLink™ Canola	(100 copies/μL) 0.15 mL
5211507001	Genomic DNA H7-1 sugarbeet 100% GMO (from ERM BF419b)	(100 copies/μL) 0.15 mL
5211509901	Plasmid DNA pGSE625 (FP967 flax; EURL method)	(100 copies/μL) 0.15 mL

Cat #	Item	Packaging
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## Control DNAs

**NEW!!!** Control DNA for evaluation of real-time PCR detection of GMO at the LOD level

5211513602	Genomic DNA RT73 rapeseed (MON-00073-7)	(20 copies GMO/μL), 20 μL
5211513620	Genomic DNA RT73 rapeseed (MON-00073-7)	(20 copies GMO/μL), 10 x 20 μL
5211513702	Genomic DNA MS8 rapeseed (ACS-BN005-8)	(20 copies GMO/μL), 20 μL
5211513720	Genomic DNA MS8 rapeseed (ACS-BN005-8)	(20 copies GMO/μL), 10 x 20 μL
5211513802	Genomic DNA Rf3 rapeseed (ACS-BN003-6)	(20 copies GMO/μL), 20 μL
5211513820	Genomic DNA Rf3 rapeseed (ACS-BN003-6)	(20 copies GMO/μL), 10 x 20 μL
5211513902	Genomic DNA MON810 maize (MON-00810-6)	(20 copies GMO/μL), 20 μL
5211513920	Genomic DNA MON810 maize (MON-00810-6)	(20 copies GMO/μL), 10 x 20 μL
5211514002	Genomic DNA T25 maize (ACS-ZM003-2)	(20 copies GMO/μL), 20 μL
5211514020	Genomic DNA T25 maize (ACS-ZM003-2)	(20 copies GMO/μL), 10 x 20 μL
5211514102	Genomic DNA LL62 rice (ACS-OS002-5)	(20 copies GMO/μL), 20 μL
5211514120	Genomic DNA LL62 rice (ACS-OS002-5)	(20 copies GMO/μL), 10 x 20 μL
5211514202	Genomic DNA MON4032-6 soy (MON-04032-6)	(20 copies GMO/μL), 20 μL
5211514220	Genomic DNA MON4032-6 soy (MON-04032-6)	(20 copies GMO/μL), 10 x 20 μL

# Quantitative real-time GMO PCR

Cat #	Item	Description
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## GMOQuant Kits

The *GMOQuant* product line is designed for quantitation of GMOs in your sample. There are specific kits and kits for a summarizing quantitation (35S promoter) available. The kits are validated on ABI instruments, but can be used on any realtime PCR cycler equipped with detection devices for the dyes contained in the kits.

All kits contain FAM (reporter dye), ROX (normalizer) (except Light Cycler™ kits) and a quencher. Many kits are also available with internal positive control (IPC), requiring equipment able to distinguish FAM and VIC. For devices made for single color detection only, we recommend our kits without IPC. The kits contain ready-to-use mastermixes for species and GMO for 100 reactions each, calibration DNA standards and reference DNA (1% GMO).

With the setup recommended, the kits serve for the following maximum no. of samples:  
GMOQuant (also IPC) : quantitative analysis = 18 samples, qualitative analysis = 44 samples

For LightCycler™ carousel cyclers (Roche), there are special kits available (see below).  
GMOQuant LC: quantitative analysis = 16 samples, qualitative analysis = 48 samples

## GMOQuant for LightCycler™ 1.x/2.x (for LC480 use LR!)

5121200728	<b>GMOQuant (LC) RoundupReady™ Soy</b>	Kit for specific quantitation of RoundupReady™ soy with soy DNA (le1) reference PCR; 2 x 128 reactions
5121200828	<b>GMOQuant (LC) 35S Screen Corn</b>	Kit for a GMO screening quantitation with CaMV 35S promoter and corn DNA (hmgA) reference PCR; 2 x 128 reactions
5121202028	<b>GMOQuant (LC) Bt11/Bt10 Corn</b>	Kit for quantitation of Bt11/Bt10 corn with corn DNA (hmgA) reference PCR; 2 x 128 reactions
5121205428	<b>GMOQuant (LC) LibertyLink™ Corn</b>	Kit for quantitation of LibertyLink™ corn with corn DNA (hmgA) reference PCR; 2 x 128 reactions
5121203228	<b>GMOQuant (LC) Maximizer™ Bt176 Corn</b>	Kit for specific quantitation of Bt176 corn with corn DNA (hmgA) reference PCR; 2 x 128 reactions
5121203328	<b>GMOQuant (LC) Event MON810 Corn</b>	Kit for event-specific quantitation of MON810 corn with corn DNA (hmgA) reference PCR; 2 x 128 reactions

Kits with 2 x 64 reactions available on request. Please contact us: [kits@eurofins.de](mailto:kits@eurofins.de).

Cat #	Item	Description
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## GMOQuant LR (Low ROX®, e.g. for ABI 7500 (Fast), Bio-Rad IQ5, Roche LC 480, Agilent MX3005P, MX3000P)

### Corn

5121203510	<b>GMOQuant (LR) 35S Screen Corn</b>	Kit for a GMO screening quantitation with CaMV 35s promoter and corn DNA (hmgA) reference PCR
5121204410	<b>GMOQuant (LR) Event NK603 Corn</b>	Kit for event-specific quantitation of NK603 corn with corn DNA (hmgA) reference PCR
5121204610	<b>GMOQuant (LR) Event GA21 Corn</b>	Kit for event-specific quantitation of GA21 corn with corn DNA (hmgA) reference PCR
5121206410	<b>GMOQuant (LR) Event MIR604 Corn</b>	Kit for event-specific quantitation of MIR604 corn with corn DNA (hmgA) reference PCR
5121206510 <b>NEW!!!</b>	<b>GMOQuant (LR) Event Bt11 Corn</b>	Kit for event-specific quantitation of Bt11 corn with corn DNA (hmgA) reference PCR
5121207310	<b>GMOQuant (LR) Event MON88017 Corn</b>	Kit for event-specific quantitation of MON88017 corn with corn DNA (hmgA) reference PCR
5121206710	<b>GMOQuant (LR) Event MON89034 Corn</b>	Kit for event-specific quantitation of MON89034 corn with corn DNA (hmgA) reference PCR
5121207610	<b>GMOQuant (LR) Event 3272 Corn</b>	Kit for event-specific quantitation of 3272 corn with corn DNA (hmgA) reference PCR
5121207810	<b>GMOQuant (LR) Event MON810 Corn</b>	Kit for event-specific quantitation of MON810 corn with corn DNA (hmgA) reference PCR
5121208010	<b>GMOQuant (LR) Event MON863 Corn</b>	Kit for event-specific quantitation of MON863 corn with corn DNA (hmgA) reference PCR
5121208210	<b>GMOQuant (LR) Event DAS-59122-7 Corn</b>	Kit for event-specific quantitation of DAS-59122-7 corn (Herculex Rootworm™) with corn DNA (hmgA) reference PCR
5121209710 <b>NEW!!!</b>	<b>GMOQuant (LR) Event MIR162 Corn</b>	Kit for event-specific quantitation of MIR162 corn with corn DNA (hmgA) reference PCR
5121209810 <b>NEW!!!</b>	<b>GMOQuant (LR) Event Bt176 Corn</b>	Kit for event-specific quantitation of Bt176 corn with corn DNA (hmgA) reference PCR
5121209610 <b>NEW!!!</b>	<b>GMOQuant (LR) StarLink™CBH351 Corn</b>	Kit for modification-specific quantitation of StarLink™/CBH351 corn with corn DNA (hmgA) reference PCR

### Rice

5121209210 <b>NEW!!!</b>	<b>GMOQuant (UMM) Event LL62 Rice</b>	Kit for event-specific quantitation of LL62 rice
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### Rapeseed

5121208410	<b>GMOQuant (UMM) Event T45 Rapeseed</b>	Kit for event-specific quantitation of T45 rapeseed
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**Kits with 2 x 50 reactions available on request. Please contact us: [kits@eurofins.de](mailto:kits@eurofins.de).**

Cat #	Item	Description
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## GMOQuant LR (Low ROX®, e.g. for, ABI 7500 (Fast), Bio-Rad IQ5, Roche LC 480, Agilent MX3005P, MX3000P)

### Soy

5121210010 <b>NEW!!!</b>	<b>GMOQuant Duplex (LR) 35S/MON89788 Soy</b>	Kit for a duplex GMO screening and event quantitation of CaMV 35S promoter and event MON89788 soy with soy DNA (le1) reference PCR
5121207210	<b>GMOQuant (LR) 35S Screen Soy</b>	Kit for a GMO screening quantitation of the CaMV 35s promoter with soy DNA (le1) reference PCR
5121203410	<b>GMOQuant (LR) RoundupReady™ Soy</b>	Kit for specific quantitation of GTS-40-3-2 soy with soy DNA (le1) reference PCR
5121206810	<b>GMOQuant (LR) Event A2704-12 Soy</b>	Kit for event-specific quantitation of LibertyLink™ A2704-12 soy with soy DNA (le1) reference PCR
5121207010	<b>GMOQuant (LR) Event MON89788 Soy</b>	Kit for event-specific quantitation of MON89788 soy with soy DNA (le1) reference PCR
5121207510	<b>GMOQuant (UMM) Event DP-305423-1 Soy</b>	Kit for event-specific quantitation of DP305423 soy with soy DNA (le1) reference PCR

**Kits with 2 x 50 reactions available on request. Please contact us: [kits@eurofins.de](mailto:kits@eurofins.de).**

Cat #	Item	Description
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## GMOQuant (single color) w/o IPC (High ROX®, e.g. for ABI 5700, 7700, 7000, 7300, 7900)

### Corn

5121200610	<b>GMOQuant (HR)</b> 35S Screen Corn	Kit for a GMO screening quantitation with corn DNA (hmgA) reference PCR
5121209410 <b>NEW!!!</b>	<b>GMOQuant (HR)</b> Event Bt176 Corn	Kit for event-specific quantitation of Bt176 corn with corn DNA (hmgA) reference PCR
5121209910 <b>NEW!!!</b>	<b>GMOQuant (HR)</b> Event Bt11 Corn	Kit for event-specific quantitation of Bt11 corn with corn DNA (hmgA) reference PCR
5121208110	<b>GMOQuant (HR)</b> Event MON863 Corn	Kit for event-specific quantitation of MON863 corn with corn DNA (hmgA) reference
5121201510	<b>GMOQuant (HR)</b> Event MON810 Corn	Kit for event-specific quantitation of YieldGard™ MON810 corn with corn DNA (hmgA) ref. PCR
5121201610	<b>GMOQuant (HR)</b> LibertyLink™ Corn	Kit for quantitation of LibertyLink™ (T14 + T25) corn with corn DNA (hmgA) reference PCR
5121204310	<b>GMOQuant (HR)</b> Event NK603 Corn	Kit for event-specific quantitation of NK603 corn with corn DNA (hmgA) reference PCR
5121204510	<b>GMOQuant (HR)</b> Event GA21 Corn	Kit for event-specific quantitation of GA21 corn with corn DNA (hmgA) reference PCR
5121201810	<b>GMOQuant (HR)</b> StarLink™ Corn	Kit for specific quantitation of StarLink™ corn with corn DNA (hmgA) reference PCR
5121202310	<b>GMOQuant (HR)</b> Event TC1507 Corn	Kit for event-specific quantitation of Herculex™ I TC1507 corn with corn DNA (hmgA) ref. PCR
5121202910	<b>GMOQuant (HR)</b> Event DAS-59122-7 Corn	Kit for event-specific quantitation of Herculex™ RW DAS-59122-7 corn with corn (hmgA) ref. PCR
5121205510	<b>GMOQuant (HR)</b> Event MIR604 Corn	Kit for event-specific quantitation of MIR604 corn with corn DNA (hmgA) reference PCR
5121207410	<b>GMOQuant (HR)</b> Event MON88017 Corn	Kit for event-specific quantitation of MON88017 corn with corn DNA (hmgA) reference PCR
5121206910	<b>GMOQuant (HR)</b> Event MON89034 Corn	Kit for event-specific quantitation of MON89034 corn with corn DNA (hmgA) reference PCR

### Potato

5121207910	<b>GMOQuant (HR)</b> Event EH92-527-1 Potato	Kit for event-specific quantitation of EH92-527-1 (Amflora™) potato with UDP-glycose pyrophosphorylase species reference PCR
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### Rapeseed

5121208410 <b>NEW!!!</b>	<b>GMOQuant (UMM)</b> Event T45 Rapeseed	Kit for event-specific quantitation of T45 rapeseed
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### Rice

5121209210 <b>NEW!!!</b>	<b>GMOQuant (UMM)</b> Event LL62 Rice	Kit for event-specific quantitation of LL62 rice
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Cat #	Item	Description
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## GMOQuant (single color) w/o IPC (High ROX®, e.g. for ABI 5700, 7700, 7000, 7300, 7900)

### Soy

5121203110	<b>GMOQuant (HR)</b> 35S Screen Soy	Kit for a GMO screening quantitation with soy DNA (le1) reference PCR
5121200410	<b>GMOQuant (HR)</b> RoundupReady™ Soy	Kit for modification-specific quantitation of RoundupReady™ soy with soy DNA (le1) reference PCR
5121206310	<b>GMOQuant (HR)</b> Event A2704-12 Soy	Kit for event-specific quantitation of A2704-12 soy with soy DNA (le1) reference PCR
5121207110 <b>NEW!!!</b>	<b>GMOQuant (HR)</b> Event MON89788 Soy	Kit for event-specific quantitation of MON89788 soy with soy DNA (le1) reference PCR
5121207510	<b>GMOQuant (UMM)</b> Event DP-305423-1 Soy	Kit for event-specific quantitation of DP-305423-1 soy with soy DNA (le1) reference PCR

### Sugarbeet

5121206210	<b>GMOQuant (HR)</b> Event H7-1 Sugarbeet	Kit for event-specific quantitation of H7-1 sugarbeet with glutamine synthetase sugarbeet reference PCR
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### Potato

5121207910	<b>GMOQuant (HR)</b> Event EH92-527-1 Potato	Kit for event-specific quantitation of EH92-527-1 (Amflora™) potato with UDP-glycose pyrophosphorylase species reference PCR
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## GMOQuant IPC (High ROX®, e.g. for ABI 7700, 7900)

### *Kits with internal positive control (IPC)*

5121200110	<b>GMOQuant IPC (HR)</b> RoundupReady™ Soy	Kit for specific quantitation of RoundupReady™ soy with soy DNA (le1) reference PCR
5121202110	<b>GMOQuant IPC (HR)</b> 35S Screen Soy	Kit for a GMO screening quantitation with soy DNA (le1) reference PCR
5121200310	<b>GMOQuant IPC (HR)</b> 35S Screen Corn	Kit for a GMO screening quantitation with corn DNA (hmgA) reference PCR
5121200210	<b>GMOQuant IPC (HR)</b> Maximizer™ Bt176 Corn	Kit for specific quantitation of Bt176 Maximizer™ corn with corn DNA (hmgA) reference PCR
5121201010	<b>GMOQuant IPC (HR)</b> Bt11/Bt10 Corn	Kit for quantitation of Bt11 and Bt10 corn with corn DNA (hmgA) reference PCR
5121201110	<b>GMOQuant IPC (HR)</b> Event MON810 Corn	Kit for specific quantitation of YieldGard™ MON810 corn with corn DNA (hmgA) ref. PCR
5121201210	<b>GMOQuant IPC (HR)</b> LibertyLink™ Corn	Kit for quantitation of LibertyLink™ (T14 + T25) corn with corn DNA (hmgA) reference PCR
5121202210	<b>GMOQuant IPC (HR)</b> Event TC1507 Corn	Kit for specific detection of Herculex™ I TC 1507 corn with corn DNA (hmgA) reference PCR

**Kits with 2 x 50 reactions available on request. Please contact us: [kits@eurofins.de](mailto:kits@eurofins.de).**



# Animal Species

Cat #	Item	Description
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## DNAnimal Kits

The DNAnimal product line enables you to identify animal species in your sample. The kits with 100 reactions can be used for 22 samples on one plate for both, high ROX® AND low ROX® cyclers.

5422210010	<b>DNAnimal Ident Meat</b> for identification of bovine and porcine DNA	2x50 reactions, all reagents and positive control DNA included
5422210110	<b>DNAnimal Ident Poultry</b> for ident. of chicken, duck and turkey DNA	3x50 reactions, all reagents and positive control DNA included
5422210210	<b>DNAnimal Ident Beef</b> for identification of bovine DNA	100 reactions, all reagents and positive control DNA included
5422210310	<b>DNAnimal Ident Pork</b> for identification of porcine DNA	100 reactions, all reagents and positive control DNA included
5422210410	<b>DNAnimal Ident Lamb</b> for identification of sheep DNA	100 reactions, all reagents and positive control DNA included
5422210510	<b>DNAnimal Ident Goat</b> for identification of goat DNA	100 reactions, all reagents and positive control DNA included
5422210610	<b>DNAnimal Ident Chicken</b> for identification of chicken DNA	100 reactions, all reagents and positive control DNA included
5422210710	<b>DNAnimal Ident Turkey</b> for identification of turkey DNA	100 reactions, all reagents and positive control DNA included
5422210810	<b>DNAnimal Ident Duck</b> for identification of duck DNA	100 reactions, all reagents and positive control DNA included
5422210910 <b>NEW!!!</b>	<b>DNAnimal Ident Horse</b> for identification of horse DNA	100 reactions, all reagents and positive control DNA included

Cat #	Item	Description
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## DNAnimal Control DNAs

5222580804	Genomic DNA Cat ( <i>Felis silvestris</i> )	0.2 mL [1 ng/μL]
5222581304	Genomic DNA Cattle ( <i>Bos taurus</i> )	0.2 mL [1 ng/μL]
5222580504	Genomic DNA Chicken ( <i>Gallus gallus</i> )	0.2 mL [1 ng/μL]
5222580604	Genomic DNA Dog ( <i>Canis lupus familiaris</i> )	0.2 mL [1 ng/μL]
5222580104	Genomic DNA Muscovy Duck ( <i>Cairina moschata</i> )	0.2 mL [1 ng/μL]
5222582304	Genomic DNA Mallard Duck ( <i>Anas platyrhynchos</i> )	0.2 mL [1 ng/μL]
5222580404	Genomic DNA Fallow Deer ( <i>Dama dama</i> )	0.2 mL [1 ng/μL]
5222581804	Genomic DNA Goat ( <i>Capra hircus</i> )	0.2 mL [1 ng/μL]
5222580204	Genomic DNA Goose ( <i>Anser cygnoides</i> )	0.2 mL [1 ng/μL]
5222580304	Genomic DNA Hare ( <i>Lepus europaeus</i> )	0.2 mL [1 ng/μL]
5222581004	Genomic DNA Horse ( <i>Equus caballus</i> )	0.2 mL [1 ng/μL]
5222580904	Genomic DNA Human ( <i>Homo sapiens</i> )	0.2 mL [1 ng/μL]
5222582004	Genomic DNA Kangaroo ( <i>Macropus giganteus</i> )	0.2 mL [1 ng/μL]
5222582104	Genomic DNA Ostrich ( <i>Struthio camelus</i> )	0.2 mL [1 ng/μL]
5222581504	Genomic DNA Pig ( <i>Sus scrofa domestica</i> )	0.2 mL [1 ng/μL]
5222580704	Genomic DNA Rabbit ( <i>Oryctolagus cuniculus</i> )	0.2 mL [1 ng/μL]
5222581904	Genomic DNA Red Deer ( <i>Cervus elaphus</i> )	0.2 mL [1 ng/μL]
5222581204	Genomic DNA Roe Deer ( <i>Capreolus capreolus capreolus</i> )	0.2 mL [1 ng/μL]
5222582204	Genomic DNA Sika Deer ( <i>Cervus nippon</i> )	0.2 mL [1 ng/μL]
5222581404	Genomic DNA Sheep ( <i>Ovis aries</i> )	0.2 mL [1 ng/μL]
5222581604	Genomic DNA Springbok ( <i>Antidorcas marsupialis</i> )	0.2 mL [1 ng/μL]
5222581104	Genomic DNA Turkey ( <i>Melagris gallopavo</i> )	0.2 mL [1 ng/μL]
5222580004	Genomic DNA Water Buffalo ( <i>Bubalus bubalis</i> )	0.2 mL [1 ng/μL]
5222581704	Genomic DNA Wild Boar ( <i>Sus scrofa scrofa</i> )	0.2 mL [1 ng/μL]
5212581501	Genomic DNA Domestic Pig ( <i>Sus scrofa domestica</i> )	50 μL [100 copies/μL]
5212581301	Genomic DNA Cattle ( <i>Bos taurus</i> )	50 μL [100 copies/μL]
5212580501	Genomic DNA Chicken ( <i>Gallus gallus</i> )	50 μL [100 copies/μL]
5222582301	Genomic DNA Mallard Duck ( <i>Anas platyrhynchos</i> )	50 μL [100 copies/μL]
5212581101	Genomic DNA Turkey ( <i>Melagris gallopavo</i> )	50 μL [100 copies/μL]
5212581801	Genomic DNA Goat ( <i>Capra hircus</i> )	50 μL [100 copies/μL]
5212581401	Genomic DNA Sheep ( <i>Ovis aries</i> )	50 μL [100 copies/μL]

# Food pathogens

Cat #	Item	Description
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## BACGene Kits

The BACGene product line is designed for identification of food pathogens. The kits are validated for a pharmaceutical application and are made for research use only. The kits can be used on any realtime PCR cycler equipped with detection devices for the dyes in the kits. The kits contain ready-to-use mastermixes for 100 reactions.

## BACGene IPC (High ROX® – e.g. for ABI 7700)

*Kits with internal positive control (IPC)*

5123201810	BACGene IPC (HR) Salmonella ssp.	Kit with 100 RT-PCR reactions for specific detection of <i>Salmonella ssp.</i>
5123201910	BACGene IPC (HR) Escherichia coli	Kit with 100 RT-PCR reactions for specific detection of <i>Escherichia coli</i>
5123202010	BACGene IPC (HR) Pseudomonas aeruginosa	Kit with 100 RT-PCR reactions for specific detection of <i>Pseudomonas aeruginosa</i>
5123202110	BACGene IPC (HR) Staphylococcus aureus	Kit with 100 RT-PCR reactions for specific detection of <i>Staphylococcus aureus</i>

## BACGene (High ROX® – e.g. for ABI 7700 or ABI 5700)

*Kits without internal positive control – external positive control available*

5123202210	BACGene (HR) Salmonella ssp.	Kit with 100 RT-PCR reactions for specific detection of <i>Salmonella ssp.</i>
5123202310	BACGene (HR) Escherichia coli	Kit with 100 RT-PCR reactions for specific detection of <i>Escherichia coli</i>
5123202410	BACGene (HR) Pseudomonas aeruginosa	Kit with 100 RT-PCR reactions for specific detection of <i>Pseudomonas aeruginosa</i>
5123202510	BACGene (HR) Staphylococcus aureus	Kit with 100 RT-PCR reactions for specific detection of <i>Staphylococcus aureus</i>

## BACGene (Low ROX® – e.g. for ABI 7500 or Stratagene MX 3005P)

*Kits without internal positive control*

5123212210	BACGene (LR) Salmonella ssp.	Kit with 100 RT-PCR reactions for specific detection of <i>Salmonella ssp.</i>
5123212310	BACGene (LR) Escherichia coli	Kit with 100 RT-PCR reactions for specific detection of <i>Escherichia coli</i>
5123212410	BACGene (LR) Pseudomonas aeruginosa	Kit with 100 RT-PCR reactions for specific detection of <i>Pseudomonas aeruginosa</i>
5123212510	BACGene (LR) Staphylococcus aureus	Kit with 100 RT-PCR reactions for specific detection of <i>Staphylococcus aureus</i>

# **General Terms & Conditions of Sale (GTCS) of Eurofins GeneScan GmbH**

## **1. Scope of application and derogations from the GTCS**

1.1 The following General Terms and Conditions of Sale ("GTCS") shall be applicable to all contracts which are accepted by "Eurofins GeneScan GmbH or its subsidiaries or sister companies" (referred to hereinafter as "ES") (the undertaking to which individual contracts are awarded shall be referred to hereinafter as the "Contractor"). They shall also apply to contracts concluded by telephone which are not confirmed in writing and to those contracts which arise through the provision of samples. A contract subject to these GTCS shall arise as a consequence of the Contractor's acceptance of a contract. A contract notified to the Contractor shall either be accepted pursuant to (a) the Contractor's performance of the contract (in such a case the written confirmation of the Contractor shall not be required) or (b) the Contractor's written acceptance of the contract.

1.2 Apart from the Director and the authorized representatives of the Contractor, no employee, representative or sub-contractor of ES shall be entitled to authorize any derogation from the provisions of the GTCS or to waive their application or to bind the Contractor in any manner which would lead to the applicability of any contrary provisions which in terms of their content might conflict with the GTCS or take precedence over them. Such a modification or waiver of the applicability of the GTCS shall only be binding upon the Contractor to the extent that it is recorded or given in writing and is signed by the director of the Contractor or by one of its authorized representatives.

## **2. The conclusion of contracts, the non-applicability of contrary contractual terms and conditions and the non-acceptance of logistical services**

2.1 In order to be concluded effectively, a contract must be notified by a Customer on its letterhead by post, fax or e-mail or by using an ES-approved order form ("Sample Submission Form") or an electronic order form. It shall furthermore be necessary to have reached an agreement on the date of the conclusion of the contract in relation to all of the necessary commercial details which are not covered by these GTCS (including price, estimated period for performance and the delivery date). The Customer must immediately confirm in writing those contracts which are concluded over the telephone. In the event that a Customer provides to the Contractor samples with a reference to its Customer number, this shall also be deemed to be the conclusion of a contract. The Contractor shall not be obliged to commence any analysis before all of the terms of the contract are absolutely clear and prior to having been provided with all of the necessary information.

2.2 To the extent that no contrary provisions are expressly agreed in writing and signed by a director or an authorized representative of the Contractor, the General Terms & Conditions of Business of a Customer shall be without any effect, even if such Customer refers or has referred at some point in time to its General Terms & Conditions of Business. Furthermore, any earlier acceptance of special terms and conditions in the context of a previous contract

(including special provisions in relation to price) shall not mean that such special conditions shall be accepted in the future in the context of any subsequent contracts. Each contract which is accepted by the Contractor shall to such an extent be viewed as a separate contract between the Contractor and the Customer.

2.3 In the event that the Customer subsequently stipulates additional requirements in connection with an already concluded contract, the Contractor shall be entitled to invoice a management and administration fee in the amount of up to €25.00. Should the Customer stipulate additional requirements in connection with samples which have already arrived at the laboratory, this shall be deemed to constitute a new contract and may lead to a corresponding postponement of the previously estimated delivery dates.

2.4 Any logistical service which is to be provided outside of the laboratory (in particular collections, sampling and the carrying out of audits) and of which the Customer does not avail itself in spite of the agreement reached by the parties, must be paid for in full. Only those costs which should have been saved by the Contractor in accordance with section 649 of the German Civil Code [Bürgerliches Gesetzbuch] (please refer in this connection to these provisions) may be deducted from the full price. The above provisions shall not apply if the Customer is contractually or legally entitled to withdraw from the contract or if the commissioned logistical service is cancelled or modified at the latest, if the service consists of a collection, 48 hours prior to the provision of the service, or if the service consists of sampling, 96 hours prior to the provision of the service, or, if the service consists of the carrying out of an audit, one week prior to the provision of the service.

## **3. Prices and payment terms**

3.1 Prices shall be stipulated "ex works" (Incoterms 2000) and shall not include packaging, which shall be invoiced separately. This shall not apply should any provisions to the contrary be agreed. All additional costs or expenditure (e.g. such costs and expenditure as may be incurred by the Contractor in connection with the contract) shall be borne by the Customer.

3.2 Prices shall be stipulated net of any taxes payable (including value-added tax) and shall be based upon the tariffs applicable on the date of the conclusion of the contract. Taxes shall be calculated on the basis of the rates applicable on the date of the issue of the invoice.

3.3 To the extent that no express agreement to the contrary is reached, payments must in all cases be made within a period of 30 days from the date of the invoice. Any query in relation to an invoice must be submitted within a period of 45 days from the date of receipt of such invoice. In the event that the Customer has doubts in relation to the accuracy of the results of any analysis, this shall not entitle it to withhold payment, to the extent that the defective nature of the results of the analysis and the Customer's counter-claims resulting therefrom are not undisputed, are not acknowledged by the Contractor or have not been judicially established. Should the Customer default on any payment, all sums owed by the Customer – including any sums owed pursuant to other contracts – shall become immediately due and payable. The Contractor shall be entitled in the event of default to apply default interest of 8 percentage points above the base rate. The right of the Contractor to assert its claims in respect of any

demonstrable losses suffered as a result of such default which may exceed such rate shall not be affected hereby.

3.4 If at the request of the Customer a new invoice must be issued, the Contractor may invoice an administration fee in an amount of up to €15.00.

3.5 Payments shall be made by way of a bank transfer or by direct debit. Other means of payment shall require the prior consent of the Contractor. The Customer shall be obliged to provide the required bank account details to the Contractor.

3.6 The Contractor shall be entitled to make the conclusion of a contract contingent upon the advance payment of up to 100% of the estimated consideration payable.

#### **4. Obligations of the Customer in connection with the delivery of samples or materials**

4.1 Samples or materials must be in a condition which permits the production of reports / analyses or the production of the products commissioned without any problems arising. The Contractor shall be entitled to carry out an examination of any sample or materials on their delivery in order to establish their condition prior to the processing of the sample or the production of a report or their use in the production process. The Customer shall be obliged to bear the costs of such an inspection on delivery, should it emerge that the sample or materials do not comply with the requirements set out in this section 4.1. In the event that the result of the inspection on delivery reveals that analysis or production will be impossible or only possible in more onerous circumstances than originally anticipated – for example because the sample or materials have been mixed with foreign materials or substances which were not provided by the Customer or if they have degraded – the Contractor shall be entitled to withdraw from the contract or to suspend the performance of the contract. In such a case the Customer shall bear the costs which the Contractor has incurred until such point in time.

4.2 The Customer must ensure and hereby warrants that the samples shall constitute no danger to the property and any other legal interests of the Contractor or ES and to their employees and other agents – either on the factory premises of the Customer or during shipment, in the laboratory or on any other premises belonging to the Contractor or ES. It shall be the responsibility of the Customer to comply with the statutory provisions relating to special waste and hazardous materials. Such obligations shall relate to the provision of information, shipment and removal. In particular the employees or other agents of the Contractor must be informed of any health or safety concerns in connection with the samples. Such concerns shall include in particular those in connection with known or presumed toxic substances or any other contamination of a sample and the presumed level of the contamination, as well as any risks to the property and other legal interests of the Contractor or ES and to their employees and other agents pursuant to such contamination. In the event of any wrongful breach of these obligations the Customer shall be liable for any costs, damage and any other prejudice which are incurred or suffered by the Contractor or ES or their personnel or other agents as a result thereof; this shall be the case irrespective of whether such damage is suffered on the premises of the Customer (for instance in the context of

the taking of a sample), during shipment, in the laboratory or on any other premises belonging to the Contractor or ES. Such liability shall also include a corresponding obligation to indemnify the Contractor and ES in the event of any proceedings being instigated against them by third parties. The Customer shall bear the costs of the reasonable removal of special waste and hazardous materials which are incurred as a result of the nature of the samples provided by the Customer. This shall be the case irrespective of whether or not the sample has been designated as special waste or a hazardous material. At the request of the Contractor the Customer shall be obliged to notify to the Contractor the precise composition of any sample.

#### **5. Rights of title in the samples and the storage of samples**

5.1 All samples shall be the property of the Contractor to the extent that that this is necessary in order to perform the contract. To the extent that storage, which shall be invoiced separately, has not been agreed, the Contractor shall not be obliged to ensure the storage and/or refrigeration of any sample. If storage, which shall be invoiced separately, has been agreed, the Contractor shall take commercially reasonable measures in accordance with standard industrial practices to store the samples.

5.2 The Contractor shall be entitled to dispose of or destroy samples immediately upon the completion of analyses, unless the Parties have agreed in writing that the Contractor shall retain the sample. If a specific retention period has been agreed, the Contractor shall be entitled to dispose of or destroy the sample without prior notice on the expiry of such period. Should such disposal or destruction be subject to specific statutory provisions (e.g. in the case of special waste or hazardous materials), the Customer shall bear any costs which are incurred in connection therewith. In the event that the Customer requests the return of unused sample materials, the Customer shall return such sample materials at the expense and risk of the Customer.

#### **6. Delivery dates and completion periods**

6.1 Delivery dates and completion periods shall be estimates and shall not be binding upon the Contractor. The Contractor shall nonetheless be required to use its commercially reasonable endeavours to comply with the estimated completion periods.

6.2 Results shall as a rule be sent on the completion of the analysis by e-mail and/or post or by any other electronic means to those persons designated by the Customer on the conclusion of the contract.

#### **7. The transfer of title and other rights and residual rights in the results of the analyses**

7.1 The rights of title and any other rights in the results of the analyses, products, equipment, software or like items held by the Contractor in the context of the services provided to the Customer shall be retained by the Contractor until such time as all invoices relating to such services have been paid in full by the Customer. Until such invoices have been paid in full the Customer shall have no rights of title in or any other rights to exploit the services provided. Should the Customer be in arrears with the settlement of any sums which are payable to the Contractor or ES, the Contractor shall be entitled to suspend the



performance of the contract and any other work being carried out on behalf of the Customer. This shall also apply if the payment which is late is payable pursuant to another contract.

7.2 Even after a payment has been made in full by the Customer, the Contractor shall have the right to retain the results of any analyses carried out and to make use of such results in an anonymised form which does not permit the identification of the Customer, and to publish such results to the extent that this does not cause a prejudice to any legitimate interests of the Customer which are known to the Contractor.

## **8. Limitations on warranties and the liability and indemnity obligations of the Customer**

8.1 Contracts shall be performed under the supervision of the Contractor in the best possible conditions in accordance with the state of the art. Results cannot be 100% accurate and/or relevant in all cases. Analyses, interpretations, estimates, consultancy services and inferences shall be completed, arrived at, compiled, provided and drawn with a commercially reasonable degree of care. However, the Contractor cannot warrant that such analyses, interpretations, estimates, consultancy services and inferences shall in all cases be accurate or wholly relevant. The warranty period for such limited statutory warranty shall be twelve months from the date of acceptance according to Section 640 of the German Civil Code. The parties agree that services, goods etc. shall be deemed to have been accepted in the event that the Customer notifies nothing to the contrary within the period of one week from the date of receipt. In each case the Customer shall be obliged to verify the cogency of the results, interpretations, estimates and inferences provided by the Contractor with a reasonable degree of care and at its own risk, in the event that the Customer wishes to rely on such results, interpretations, estimates and inferences in any material connection. Should it be apparent that the results are inaccurate, the Customer shall be obliged to contact the Contractor immediately and to inform it of such fact. In the event that the Customer is a merchant within the meaning of the German Commercial Code [Handelsgesetzbuch] and does not comply with this obligation, the performance given by the Contractor shall be deemed to have been given in accordance with the contract. Section 377 of the German Commercial Code [Handelsgesetzbuch] shall be analogously applied mutatis mutandis.

8.2 Each report on an analysis shall relate exclusively to the sample analysed by the Contractor. To the extent that the Contractor is not expressly commissioned to produce a sample schedule (including a determination of which samples of which raw materials and which finished products are to be analysed with which frequency), subject to the specification of the precise scope of the analyses to be carried out, or if and to the extent that the Customer fails to comply with the relevant recommendations of the Contractor, the Contractor shall have no liability should it emerge that the sample schedule and/or the specification of the scope of the analysis is insufficient or inappropriate.

8.3 The Customer shall be responsible for the due and proper delivery of samples and the materials to be examined or analysed and which are being provided for the purposes of production. If and to the extent that

nothing is agreed to the contrary in writing, the Contractor shall have no liability in the event that a sample is lost or damaged during shipment. The Customer shall be exclusively and at all times liable for the security, packaging and insurance of the sample from the time of its dispatch to the time of its delivery to the offices or laboratories of the Contractor.

8.4 The Customer warrants and undertakes to the Contractor to ensure that all samples which are sent to the Contractor for the purposes of carrying out any analysis shall be in a secure and non-volatile form. The Customer furthermore undertakes to indemnify the Contractor and ES and their personnel or other agents in respect of any loss, costs and other damage suffered or incurred by them due to the fact that a sample is hazardous or volatile, unless such fact is not attributable to the Customer. In the event that a sample is dangerous or is constituted by special waste/a hazardous medium, the Customer must so inform the Contractor in writing prior to its dispatch. The Customer shall be furthermore obliged to appropriately label any packaging, samples and/or containers.

8.5 To the extent that the Parties do not agree anything to the contrary, the contractual relationship shall exist only as between the Customer and the Contractor. No contract shall be concluded on behalf of third parties or with a protective effect for third parties pursuant to which the Contractor or ES may be bound by any obligations owed to such third parties, if and to the extent that such an arrangement does not arise pursuant to the contract and/or these GTCS. The Customer shall be obliged to indemnify the Contractor and ES in respect of all third party claims which may be brought against the Contractor or ES in connection with the Customer or the contract with the Customer, if and to the extent any wrongful conduct has been engaged in by the Customer.

8.6 In the event that the Contractor delivers any software to the Customer, the Customer must use such software in accordance with any applicable licence conditions, instructions and manuals.

## **9. Limitation on liability**

9.1 Claims against the Contractor, its parent company, subsidiaries and sister companies and their manual workers, employees, members and directors and advisers (referred to hereinafter as "liability-privileged persons") in respect of compensation for losses suffered and costs incurred shall be excluded, in the absence of intent, gross negligence or the breach of a material contractual obligation. A material contractual obligation shall in this connection mean any contractual obligation with which compliance enables the due and proper performance of the contract and on compliance with which the Customer may duly rely.

9.2 The liability of liability-privileged persons for any breaches of material contractual obligations based on simple negligence shall be limited to losses which are typical for the contracts pursuant to which such losses arise and which are foreseeable.

9.3 The liability of liability-privileged persons for the gross negligence of those employees of the Contractor who do not occupy a management position shall be limited to the payment of compensation in respect of typically foreseeable losses. This limitation on liability shall not apply to the

breaches of the material contractual obligations described in section 9.1.

9.4 The provisions set out in sections 9.1 to 9.3 shall be subject to the prior-ranking provisions contained in section 9.5 for claims in respect of compensation, and in particular in the case of compensation in the event of impossibility, a breach of contract, performance which is defective or which is not given in accordance with the contract, other breaches of the contract and any culpa in contrahendo.

9.5 The liability of the liability-privileged persons in accordance with the provisions of the German Product Liability Act [Produkthaftungsrecht], in the event of the breach of any warranty and in respect of claims for damages arising from the death, physical injury or damage to the health of a person, shall not be limited by these GTCS.

9.6 It shall be a prerequisite for the acceptance of a contract by the Contractor that the Customer represents and that it shall compensate and indemnify liability-privileged persons in respect of all losses, infringements, claims and costs which the latter may suffer or incur as a result of the wrongful conduct of the Customer. The conclusion of a contract by the Customer shall constitute the giving of such an indemnity.

## **10. The carrying out of new analyses**

Complaints in relation to test results may only be notified subject to the rules set out in section 8.1. In each case where the inaccuracy of the first results of the analyses is not established, the Customer shall bear the costs of any new tests or the verification of the foregoing tests.

## **11. Force majeure**

The Contractor shall not be liable to pay any compensation in respect of any delays, errors, damage or other problems which are caused by events or circumstances which were unforeseeable by the Contractor or which are beyond its control or which result from compliance with official orders, legislation or regulations.

## **12. Confidentiality and the processing of customer data**

12.1 The Contractor shall be entitled to store and process any personal or commercial data which it receives in any manner whatsoever from the Customer in accordance with the applicable statutory provisions relating to data protection, irrespective of whether or not such data is provided directly by the Customer or by a third party. The Contractor shall be obliged to use its commercially reasonable endeavours to deal with such data confidentially in accordance with the law.

12.2 For the purposes of the performance of the contract, personal data – for example in relation to corporate bodies, contact persons and/or project managers – shall be processed and utilised. The Customer is aware that in order to be in a position to ensure the provision of the best service possible, including the use of existing capacity and know-how, not only personal data but also contract-related data, such as any issues examined in the context of an analysis and the results thereof, may be disclosed to affiliated undertakings in Germany, Austria or Switzerland which are the holders of an accreditation pursuant to ISO 17025. The affiliated undertakings shall be bound by a corresponding confidentiality undertaking, a copy of which

shall be provided on request. In addition the Contractor may process and make use of such data for the purposes of winning further contracts. The Customer may prohibit such processing and use by so notifying [gmoanalytics@genescan.com](mailto:gmoanalytics@genescan.com) at the Contractor.

12.3 The Contractor shall be obliged to use its commercially reasonable endeavours to keep all results of the analyses and service reports confidential. These obligations shall not apply to the rights of the Contractor pursuant to section 7.2 or to any requirement to adduce proof of an entitlement to receive payment for services rendered.

12.4 The results of any analyses shall be produced and disclosed for the exclusive use of the Customer only and may not be made available to third parties for any purposes whatsoever without the prior written consent of the Contractor. Furthermore, the Customer shall be obliged to ensure confidentiality in connection with all of the services provided by the Contractor. In addition, any results and the composition of products and software which are delivered by the Contractor, as well as the results of any analyses, may not be published or commercially exploited without the prior written consent of the Contractor. Furthermore, in the event that such written consent is given, the Customer shall remain (a) liable for any consequences of the disclosure of such results to a third party and any reliance placed by such third party on such results, and (b) hereby undertakes to indemnify the liability-privileged persons (see section 9.1) in respect of any claims brought by a third party as a result of the disclosure of such results and / or any reliance placed thereon and any – actual or alleged – loss resulting therefrom.

## **13. Miscellaneous provisions**

13.1 These GTCS shall be amended in writing from time to time by the Contractor. In each case the version of these GTCS in force on the date of the acceptance of the offer shall be the version applicable to the resulting contract.

13.2 In the event that a court strikes down any provisions of these GTCS, limits them in their application or finds them to be invalid, unlawful or unenforceable, the remaining provisions shall remain valid to the fullest extent possible.

13.3 In the event that either the Contractor or the Customer refrains from asserting any rights which arise pursuant to these GTCS, this shall neither constitute a waiver of such rights nor shall it result in the forfeiture of such rights.

## **14. Governing law / Place of jurisdiction**

14.1 All contracts to which these GTCS apply shall be governed by German law. The provisions of the United Nations Convention on Contracts for the International Sale of Goods (CISG) shall not apply. The exclusive place of jurisdiction shall be Freiburg im Breisgau, to the extent that the Customer is a merchant, a legal person in accordance with public law or special fund constituted in accordance with public law. However, the claimant shall alternatively be entitled to commence proceedings before the Arbitral Tribunal of the German Institution of Arbitration (DIS e.V.), instead of before the ordinary courts. In such a case the Arbitral Tribunal shall have exclusive jurisdiction. The place of arbitration shall be Hamburg.



## Eurofins | GeneScan real-time PCR kits: FAQ

### “Which kits can I use on my cycler?”

For use of our kits, your cycler needs filters/detection for the following dyes.  
Quenchers are shown in brackets and are not detected, ROX™ is used as normalizer.

Kit / Kit line	FAM	VIC/ YY	HEX	JOE	Cal610	Cy5	TAMRA	(BHQ)	ROX
<b>GMScreen RT 35S/NOS (IPC)</b>	x		x			x		(x)	LR
<b>GMOscreen RT 35S/NOS/FMV (IPC) for LC480 and MX3005P</b>	x		x		x	x		(x)	NR
<b>GMOscreen RT 35S/NOS/FMV (IPC) for ABI 7500 Fast</b>	x		x	x		x	x	(x)	LR
<b>GMOIdent RT</b>	x							(x)	LR+HR
<b>GMOIdent RT (IPC)</b>	x	x						(x)	LR+HR
<b>GMOQuant</b>	x						(x) or	(x)	LR or HR or UMM
<b>GMOQuant (IPC)</b>	x	x					(x)		HR

### “What is the right ROX concentration for my cycler?”

Many of our real-time PCR kits are made for either cyclers needing high ROX levels or low ROX levels. If your cycler is a high-ROX, low-ROX or even a no-ROX cycler, can be seen in the table below. For no-ROX cyclers, please use low-ROX kits if no NR kits are available. Please find a (non-comprehensive) list below:

HR (high ROX)	LR (low ROX)	NR (no ROX)
ABI 7000	ABI 7500 / 7500 FAST	Bio-Rad CFX96
ABI 7300	ABI StepOne/StepOne Plus	Roche LC480
ABI 7700	Agilent (Stratagene) MX3000P	Rotorgene 3000
ABI 7900	Agilent (Stratagene) MX3005P	Rotorgene 6000
MJ Research/ Bio-Rad Opticon 2	Agilent (Stratagene) MX4000	Agilent (Stratagene) MX3005P
	Bio-Rad iQ5	
	MJ Research/Bio-Rad Chromo 4	
	Eppendorf Mastercycler realplex4	

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