

# **PRODUCTS**

FOOD, FEED, BEVERAGES





Content	Version 12-202
DNA-Extraction Kits	1
FIRST-DNA ALL-TISSUE KIT	1
FIRST-SALMONELLA DNA-EXTRACTION BUFFER	1
Simplex® Easy DNA-Extraction Kits	2
SIMPLEX® EASY DNA KIT	2
SIMPLEX® EASY WINE KIT	3
SIMPLEX® EASY SPIN FOOD DNA KIT	4
SIMPLEX® EASY SPIN BACTERIAL DNA KIT	5
SIMPLEX® EASY SPIN LEGIONELLA KIT	6
SIMPLEX <sup>®</sup> EASY SPIN DNA KIT	7
Magnetic DNA-Extraction Kits	8
FIRST-MAGNETIC FOOD KIT	8
FIRST-MAGNETIC DNA AND RNA KIT	9
QuickGEN Sample Preparation Kits	10
QUICKGEN SAMPLE PREPARATION FILTRATION	10
QUICKGEN SAMPLE PREPARATION CENTRIFUGATION	10
QUICKGEN SYRINGE FILTRATION FOR DISPENSING EQUIPMENT	10
QUICKGEN YEAST SAMPLE PREPARATION KIT	11
Reference material	12
Colour Compensation Kit	12
Real-time PCR-Detection Kits	12
genControl®-GMO-Kits	12
QUALITATIVE REAL-TIME PCR	12
QUANTITATIVE REAL-TIME PCR	17
First-PCR for Animal species	18
SINGLEPLEX REAL-TIME PCR, QUALITATIVE	18
MULTIPLEX REAL-TIME PCR, QUALITATIVE	18
First-PCR for Allergens/ Plant species	19
SINGLEPLEX REAL-TIME PCR, QUALITATIVE	19
MULTIPLEX REAL-TIME PCR, QUALITATIVE	19
First-PCR for Microorganisms	20
SCREENING WITH DIFFERENTIATION	20
IDENTIFICATION BACTERIA	22
IDENTIFICATION BACTERIA IDENTIFICATION PATHOGENS	23
IDENTIFICATION PATHOGENS  IDENTIFICATION YEAST	24
Sampling	27
PolyBIND®	27



#### **DNA-Extraction Kits**

#### First-DNA all-tissue Kit

The First-DNA all-tissue Kit is one single system that makes DNA extraction possible from various substrates such as blood, urine, semen, cell culture, tissue embedded in paraffin, hair, bones, stains, plant and animal tissue, mouse tails, food, bacteria, yeast, fungi etc. without the use of toxic substances. High yields of quality DNA can be obtained, the mean purity of the isolated DNA, determined by the A260/A280 ratio, is 1.8-1.9. There is no loss of DNA by columns and the eluted DNA is well suited for PCR, sequencing, RFLP etc.

REF: GN001-10 (10 preparations, trial Kit)

GN001-50 (50 preparations) GN001-100 (100 preparations) GN001-500 (500 preparations)

GN002-50 (extra Lysis buffer 1 for 50 preparations) GN002-100 (extra Lysis buffer 1 for 100 preparations) GN003-50 (extra Lysis buffer 2 for 50 preparations) GN003-100 (extra Lysis buffer 2 for 100 preparations) GN004-50 (extra Lysis buffer 3 for 50 preparations) GN004-100 (extra Lysis buffer 3 for 100 preparations) GN005-50 (extra Enzyme for 50 preparation) GN005-100 (extra Enzyme for 100 preparation)

#### First-Salmonella DNA-Extraction buffer

First-Salmonella DNA-extraction buffer for rapid thermic cell lysis after pre-enrichment according to §64 LFGB 00.00.98.

REF: GN006-100 (100 preparations)



### Simplex® Easy DNA-Extraction Kits

#### Simplex® Easy DNA Kit

#### In 15 minutes DNA from bacteria and yeast

The Simplex® Easy DNA Kit is an extremely fast and easy DNA-Extraction from bacteria and yeasts. It is also approved for mouse tails and epithelial swaps. DNA is well suited for PCR, sequencing and further applications.

#### **DNA-Extraction**

- 1. Centrifuge sample
- 2. Remove supernatant
- 3. Add Simplex® Easy Reagent
- 4. Incubate sample at 95 °C
- 5. Centrifuge sample

#### **Advantages**

- DNA-extraction in one single vessel
- No contamination risk
- No toxic solutions
- DNA-cleaning is possible
- Universal applications
- Low material and instrument costs

REF: Q001-0010 (10 preparations) Q001-0100 (100 preparations) Q001-1000 (1000 preparations)



#### Simplex® Easy Wine Kit

#### In 40 minutes DNA from bacteria and yeast

The Simplex® Easy Wine Kit is an extremely fast and easy method for isolation of DNA from bacteria and yeasts out of wine. It is particularly suitable for detection of wine spoilage microorganisms like e.g. *Dekkera bruxellensis*, *Oenococcus oeni* or lactic acid bacteria.

#### **DNA-Extraction:**

- 1. Centrifuge sample
- 2. Purify sample by washing (removal of inhibitors)
- 3. Remove the washing solution after centrifugation
- 4. Add Simplex® Easy Wine reagent
- 5. Incubate sample at 95 °C
- 6. Centrifuge sample

#### **Advantages**

- ➤ DNA-extraction in one single reaction vessel
- ➤ No inhibition by washing the sample
- No contamination risk
- > High efficiency
- > No loss of DNA
- > Fast and easy handling
- Universal applications
- Low material and instrument costs

REF: Q300 (100 preparations)
Q301 (extra washing solution for 100 preparations)



#### Simplex® Easy Spin Food DNA Kit

The Simplex<sup>®</sup> Easy Spin Food DNA Kit is a fast and optimal DNA-extraction method for food, feed, plant and animals. The use of spin columns and two cleaning steps guarantee a pure, clean and PCR-suitable DNA used for e.g. detection of GMO, allergens, animal identity,...

#### **DNA-Extraction:**

- 1. Resuspend the sample in lysis buffer and incubate 30 min. at 65 °C
- 2. Centrifuge sample
- 3. Add binding buffer and transfer to spin column, spin 30 sec
- 4. Purify sample by washing (removal of inhibitors)
- 5. Purify DNA with cleaning buffer
- 6. Spin dry 2 min.
- 7. Elute DNA with preheated Elution buffer

#### **Advantages**

- Very clean DNA
- Fast and easy handling
- Universal applications
- ➤ Long storage of DNA is possible

REF: GN007-50 (50 preparations)



#### Simplex® Easy Spin Bacterial DNA Kit

The Simplex<sup>®</sup> Easy Spin Bacterial DNA Kit is a very fast and easy method for isolation of DNA from bacteria in food and feed after pre-enrichment. The use of spin columns without further cleaning steps results in sufficiently clean DNA suitable for further applications like PCR.

#### **DNA-Extraction:**

- 1. Centrifuge preenriched sample and remove media
- 2. Resuspend the pellet in lysis buffer and incubate 30 min. 95 °C
- 3. Add binding buffer and transfer to spin column, spin 30 sec
- 4. Elute DNA with preheated Elution buffer

#### **Advantages**

- > Fast and easy DNA-extraction
- Cleaning by spin column
- No contamination risk
- Universal applications
- ➤ Long storage of DNA is possible

REF: GN008-50 (50 preparations)



#### Simplex® Easy Spin Legionella Kit

The Simplex<sup>®</sup> Easy Spin Legionella Kit is a very fast and easy method for isolation of DNA from *Legionella spp.* from drinking water, cooling- and waste water.

#### **DNA-Extraction in 4 steps:**

- 1. Centrifuge the water sample
- 2. Resuspend the pellet in lysis buffer and incubate 10 min. at 95 °C
- 3. Add binding buffer and transfer to spin column, spin 30 sec.
- 4. Elute DNA with preheated Elution buffer

#### **Advantages**

- > Suitable for all samples (drinking water, cooling- and wastewater)
- ➤ High quality Legionella DNA by using column technology
- ➤ The system provides all reagents necessary for extraction from 50 samples

REF: Q702 (50 preparations)



#### Simplex® Easy Spin DNA Kit

The Simplex® Easy Spin DNA Kit is very well suited for Alicyclobacillus spp. DNA-extraction from beverages like juices, concentrates and tomato products.

#### Sample preparation according to IFU- method 12

#### For non filterable solutions:

- Add 90 mL BAT-Bouillon to 10 mL product
- For inactivation of vegetative cells and activation of spores incubate the sample for 10 min at 80
   C and cool down to 45 °C (113 °F)
- Incubate the sample (3-7 days, aerobe at 45 °C +/- 1 °, 113 °F)

#### For filterable solutions:

- For inactivation of vegetative cells and activation of spores incubate 100 mL sample for 10 min at 80 °C (176 °F) and cool down to 45 °C (113 °F)
- Membrane filtration of the sample (0.45 µm filter)
- Incubate the filter in BAT-Bouillon (3-7 days, aerobe at 45 °C+/- 1 °, 113 °F)

#### **DNA-Extraction**

- 1. Centrifuge the pre-enriched sample
- 2. Resuspend the pellet in lysis buffer and incubate at 95 °C
- 3. Add binding buffer and transfer to spin column
- 4. Elute DNA with preheated Elution buffer

REF: Q701 (50 preparations)



#### Magnetic DNA-Extraction Kits

#### First-Magnetic Food Kit

#### **DNA-Extraction from food, feed and beverages**

The First-Magnetic Food Kit is developed for genomic DNA-extraction from various materials and is especially approved for very complex and highly processed products. The DNA is well suited for PCR, sequencing, etc.

#### **Applications:**

- highly processed products: e.g. starch, lecithin, soy sauce, tomato puree
- beverage source materials: e.g. concentrates, fruit puree
- dairy products: e.g. milk and milk products
- feed: e.g. forage cereals, spent hops (treber), fattening feed

The method is based on biomagnetic separation of genomic DNA. After preparing the lysate, the DNA is bound to magnetic beads. The rest of cell material and other contaminants is washed away. The isolated DNA is eluted in TE or  $H_2O$ . The regular volume is 50  $\mu$ L.

REF: GN009-10 (10 preparations, trial Kit) GN009-100 (100 preparations)



#### First-Magnetic DNA and RNA Kit

# DNA and RNA extraction from various samples like swabs, serum, plasma, urine and other matrices

The First-Magnetic DNA and RNA Kit is developed for manual and automated extraction of viral and bacterial DNA and RNA from a wide range of samples like swabs, plasma, serum, tissue etc.. Processing time of 96 samples is about 40 – 45 minutes and no further steps like centrifugation, phenol-chloroform treatment or alcohol precipitation are required. The kit allows safe handling and avoids cross-contaminations from sample to sample. The obtained nucleic acids are well suited for analysis by polymerase chain reaction (PCR), sequencing, and further applications. The kit is intended for Research Use Only (RUO).

#### **Test Principle**

The method is based on chemical lysis of cells followed by a biomagnetic separation of DNA and RNA. Magnetic beads are used as solid support phase in DNA and RNA extraction by a simple bind-wash and elute principle. The magnetic beads are washed 3 times to remove inhibitory components like salts. A drying step removes traces of ethanol from the final washing step. DNA and RNA are eluted under low salt conditions and can directly be used for special applications.

REF: M0096 (96 preparations)

M0960 (960 preparations) M5000 (5000 preparations) M25000 (25000 preparations)



#### QuickGEN Sample Preparation Kits

The QuickGEN procedure allows a complete and fast analysis of pre-enriched and non preenriched beverage spoilers without time consuming sample preparation steps. The system is suited to the analysis in the own company lab as well as for the mobile application on site.

- Detection of beer spoilers in high volume beer
- No sample pre-enrichment necessary
- Fast two-step system available in three versions:

#### QuickGEN Sample Preparation Filtration

- 1. Filtrate beer sample up to 1 Litre
- 2. Add QuickGEN buffer to the filter
- 3. Lysis and PCR in one step

REF: Q004 (100 preparations)

#### **QuickGEN Sample Preparation Centrifugation**

- 1. Centrifugate 30 mL beer sample
- 2. Add QuickGEN buffer
- 3. Lysis and PCR in one step

REF: Q002 (100 preparations)

#### QuickGEN Syringe Filtration for dispensing equipment

- 1. Filtrate beer sample through a syringe (volume depends on beer type)
- 2. Add QuickGEN buffer to the filter
- 3. Lysis and PCR in one step

REF: Q009 (50 preparations)



#### **QuickGEN Yeast Sample Preparation Kit**

The detection of wild yeasts and bacteria within stores of brewing yeast is a standard activity executed at most commercial breweries. However due to the complexity of the sample matrix often contaminants remain undetected. For this reason the QuickGEN yeast sample preparation kit is developed to remove inhibitory effects caused by high concentrations of brewing yeast and autolytic degradation products and to detect low concentrations of spoilers more fast and reliable.

- 1. Yeast Sampling
- 2. Dilution of yeast sample
- 3. Enzymatic treatment to remove inhibitors
- 4. Addition of QuickGEN buffer
- 5. Lysis and PCR in one step

REF: Q005 (100 preparations)



#### **Reference material**

Product	Description	Art. No.	Rxn.
All-Screen reference material	Reference material from soy and corn meal with p35S, Tnos, pat, bar, pFMV, CTP2-CP4EPSPS	GN802	500 mg

### **Colour Compensation Kit**

Product	Description	Art. No.	Rxn.
Colour Compensation Kit (LC480)	Colour Compensation for Multiplexing	Q800	5

#### **Real-time PCR-Detection Kits**

genControl®-GMO-Kits: Screening

Product	Description	REF	Rxn.
	Plant in general (single copy) + IC	GN214-50	50
First-Plant	Plant in general (single copy) + 10	GN214-100	100
First-Plant Triplex 1	Corn/Canola/Soya + IC	GN224-50	50
CoMV	Cauliflower Mosaik Virus	GN600-25	25
CaMV		GN600-50	50
Dumley Vinue	Duplex Cauliflower Mosaik Virus	GN601-25	25
Duplex Virus	and Figwort Mosaic Virus	GN601-50	50
050/T	CaMVp35S/T-nos Duplex	GN300-50	50
p35S/T-nos Duplex	Screening	GN300-100	100
pat/bar Duplex	pat/ bar Duplex Screening	GN301-50	50
		GN301-100	100



Product	Description	REF	Rxn.
P-nos-nptII	D	GN302-50	50
	P-nos-nptII Screening	GN302-100	100
-250	2000 madd Care aging	GN303-50	50
p35S-nptII	p35S-nptII Screening	GN303-100	100
am / 1 A h / A a and D maa Dumlay	Cry1Ab/Ac and P-nos Duplex	GN304-50	50
cry1Ab/Ac and P-nos Duplex	Screening	GN304-100	100
tE0/Dog Dupley	tE0/Dec Dupley DCD	GN316-50	50
tE9/Pea Duplex	tE9/Pea Duplex PCR	GN316-100	100
Triplex 1	n250/T non/CTD2 CD4FD0D0	GN305-50	50
Triplex 1	p35S/T-nos/CTP2-CP4EPSPS	GN305-100	100
Tripley 2	n255/T nag/nFM\/	GN306-50	50
Triplex 2	p35S/T-nos/pFMV	GN306-100	100
Tripley 2	p35S/T-nos/CTP2-CP4EPSPS + IC	GN307-50	50
Triplex 3		GN307-100	100
Triploy 4	p35S/T-nos/pFMV + IC	GN308-50	50
Triplex 4		GN308-100	100
Tripley F	bar/pat/CTP2-CP4-EPSPS	GN309-50	50
Triplex 5	bai/pai/CTP2-CP4-EP3P3	GN309-100	100
Tripley 6	har/not /D nos	GN310-50	50
Triplex 6	bar/pat /P-nos	GN310-100	100
Tripley 7	hor/pot/pCM\/	GN311-50	50
Triplex 7	bar/pat/pFMV	GN311-100	100
Tripley 0	not/T noc/CTD2 CD4 FDCDC	GN312-50	50
Triplex 8	pat/T-nos/CTP2-CP4-EPSPS	GN312-100	100
T: 1 0	050/ 4/0700 004 50000	GN313-50	50
Triplex 9	p35S/pat/CTP2-CP4-EPSPS	GN313-100	100



### genControl®-GMO-Kits: Soya

Product	Description	REF	Rxn.
RR-Soya	GTS40-3-2 (RoundupReady™)-	GN400-25	25
	Soya	GN400-50	50
DD2 Sava	MON89788 (RoundupReady2™)-	GN401-25	25
RR2-Soya	Soya	GN401-50	50
A2704 12 Sove	A2704 12 (Libertyl inkTM) Save	GN402-25	25
A2704-12-Soya	A2704-12 (LibertyLink™)-Soya	GN402-50	50
A5547 107 Save	AFF47 197 (Libertyl inkTM) Cove	GN403-25	25
A5547-127-Soya	A5547-127 (LibertyLink™)-Soya	GN403-50	50
GMO-Soy	RR-, RR2-, A2704-12-, A5547-127- Soya + Soya-reference	GN404-25	25
Trinley Cove 4	Soya p35S positive:	GN405-25	25
Triplex-Soya 1	A2704-12/ A5547-127/ DP356043-5	GN405-50	50
Triplex-Soya 2	Soya without screening markers (differentiation): DP305423-1/	GN406-25	25
Thipicx-Goya 2	BPS-CV127-9/ MON87701	GN406-50	50
Tripley Cove 2	Soya without screening markers (differentation): MON87708/	GN407-25	25
Triplex-Soya 3	MON87769/ DAS68416	GN407-50	50
Hexaplex Soya 1	Soya without screening markers (screening):DP305423/CV127/MON87701 (FAM) MON87708/MON87769/DAS68416 (HEX)	GN408-25	25
		GN408-50	50



### genControl®-GMO-Kits: Maize

Product	Description	REF	Rxn.
Bt11-Maize	Didd Mains	GN500-25	25
Bt i i-iviaize	Bt11-Maize	GN500-50	50
Dt476 Maire	Dtd 7C (Maximainau TM) Maina	GN501-25	25
Bt176-Maize	Bt176 (Maximizer™)-Maize	GN501-50	50
CDU254 Maira	CDI 1254 Mains (Start into)	GN502-25	25
CBH351-Maize	CBH351-Maize (StarLink)	GN502-50	50
DACE0122 Maiza	DASS0122 7 Maiza	GN503-25	25
DAS59122-Maize	DAS59122-7-Maize	GN503-50	50
F2072 Mai-a	E2272 mains (Event 2272 Mains)	GN504-25	25
E3272-Maize	E3272-maize (Event 3272 Maize)	GN504-50	50
GA21-Maize	CA21 (PoundupPoodyTM) Moizo	GN505-25	25
GAZ I-IVIAIZE	GA21 (RoundupReady™)-Maize	GN505-50	50
MIR162-Maize	MIR162-Maize	GN506-25	25
WITK 102-Walze	WIR 102-Waize	GN506-50	50
MIR604-Maize	MIR604-Maize	GN507-25	25
WIROU4-Waize		GN507-50	50
MON810-Maize	MONO10 (VioldCuardTM) Maiza	GN508-25	25
WONO TO-Maize	MON810 (YieldGuard™)-Maize	GN508-50	50
MON863-Maize	MON863-Maize	GN509-25	25
WON003-Walze	IVION003-IVIAIZE	GN509-50	50
MON88017-Maize	MON88017 (Rootworm™)-Maize	GN510-25	25
WONOOUT7-Walze	WON00017 (ROOLWOITH ")-IVIAIZE	GN510-50	50
MONIOCOCA Mari	MON89034-Maize	GN511-25	25
MON89034-Maize	IVION09034-IVIAIZE	GN511-50	50
NK603-Maize	NK603 (PoundunPoody/M) Moizo	GN512-25	25
NK6U3-Maize	NK603 (RoundupReady™)-Maize	GN512-50	50



Product	Description	REF	Rxn.
TOE Moizo	T25-maize	GN513-25	25
T25-Maize	125-maize	GN513-50	50
TC4507 Mains	TC4F07 (Haraulay TM) Maira	GN514-25	25
TC1507-Maize	TC1507 (Herculex™)-Maize	GN514-50	50
GMO-Corn	MON810-, T25-, Bt11-, Bt176-, GA21-, MON88017-, TC1507- Maize + Maize-reference	GN515-25	25
Triplex Maize 1	Maize without screening markers:	GN516-25	25
	VCO01981-5/ DAS40278-9/ LY038	GN516-50	50
4plex Maize 1	NK603/ MON810/ MON89034/ TC1507	GN517-25	25
		GN517-50	50

### genControl®-GMO-Kits: Beet, Canola, Cotton and Potato

Product	Description	REF	Rxn.
51100 507 4 Detete	EH92-527-1-Potato	GN606-25	25
EH92-527-1-Potato	E1192-327-1-Polato	GN606-50	50
GHB614-Cotton	GHB614-Cotton	GN605-25	25
GHB014-Colloi1	GHB014-COlloi1	GN605-50	50
LI7 1 Poot	H7-1-Beet + IC	GN602-25	25
H7-1-Beet		GN602-50	50
RT73-Canola	RT73 (RoundupReady™)-Canola (GT73)	GN603-25	25
K173-Cariola		GN603-50	50
Tripley Canala 1	Mo9/ T45/ Df9	GN604-25	25
Triplex-Canola 1	Ms8/ T45/ Rf3	GN604-50	50
RT73/MON88302-Canola Duplex	DTTO/MONIOCOC C	GN607-25	25
	RT73/MON88302-Canola Duplex	GN607-50	50



### genControl®-GMO-Kits: Quantitative

Product	Description	REF	Rxn.	
Soya	Soya			
n255/Sava Quant	CoM/n255 Quantification in Sava	GN409-50	50	
p35S/Soya Quant	CaMVp35S Quantification in Soya	GN409-100	100	
DD Cave Ovent	GTS40-3-2 (RoundupReady™)-	GN410-50	50	
RR-Soya Quant	Soya Quantification in Soya	GN410-100	100	
DD2 Save Quent	MON89788 (RoundupReady2™)-	GN411-50	50	
RR2-Soya Quant	Soya Quantification in Soya	GN411-100	100	
A2704-12-Soya Quant	A2704-12 (LibertyLink™)-Soya Quantification in Soya	GN412-50	50	
A5547-127-Soya Quant	A5547-127 (LibertyLink™)-Soya Quantification in Soya	GN413-50	50	
Maize				
n25S/ Maizo Quant	CaM\/n355 Quantification in Maizo	GN518-50	50	
p35S/ Maize Quant	CaMVp35S Quantification in Maize	GN518-100	100	
Bt11-Maize Quant	Bt11-Maize Quantification in Maize	GN519-50	50	
Diff-ivialze Qualit		GN519-100	100	
Bt176-Maize Quant	Bt176-Maize Quantification in Maize	GN520-50	50	
Di 170-iviaize Quant	Di 170-iviaize Quantinication in iviaize	GN520-100	100	
MON810-Maize Quant	MON810-Maize Quantification in	GN521-50	50	
MONOTO-Maize Quant	Maize	GN521-100	100	
MON89034-Maize Quant	MON89034-Maize Quantification in	GN522-50	50	
WON09034-Waize Quant	Maize	GN522-100	100	
NICCO2 Maiza Quant	NK603-Maize Quantification in	GN523-50	50	
NK603-Maize Quant	Maize	GN523-100	100	
TC1507-Maize Quant	TC1507-Maize Quantification in	GN524-100	50	
101007-IVIAIZE QUAITI	Maize	GN524-100	100	
TOE Maiza Quest	TOE Maiza Quantification in Mai-	GN525-50	50	
T25-Maize Quant T25-Maize Quanti	T25-Maize Quantification in Maize	GN525-100	100	



# First-PCR Animal species (+IC)

Product	Description	Art. No.	Rxn.
First-Animal Tetra 1	Pork/Beef/Chicken/Turkey (without IC)	GN100-50	50
First-Beef	Beef	GN101-50	50
First-Chicken	Chicken	GN103-50	50
First-Donkey	Donkey	GN104-50	50
First-Duck	Duck	GN105-50	50
First-Fish	Bone Fish	GN106-50	50
First-Goat	Goat	GN107-50	50
First-Horse	Horse	GN108-50	50
First-Meat	mammalia and poultry	GN109-50	50
First-Meat Extended	Mammalia & Poultry/Human/Plant	GN110-50	50
First-Pig	Pig	GN112-50	50
First-Pork	Pig/Pork (very sensitive pig detection)	GN111-50	50
First-Ruminant	Ruminant animals according to EU	GN113-50	50
First-Sheep	Sheep	GN114-50	50
First-Turkey	Turkey	GN115-50	50
First-duplex Cattle/Pig	Beef/Pork	GN116-50	50
First-duplex Donkey/Horse	Donkey/Horse	GN117-50	50
First-duplex Turkey/Chicken	Chicken/Turkey	GN118-50	50



# First-PCR Allergens/Plant species (+IC)

Product	Description	REF	Rxn.
First-Almond	Almond	GN200-50	50
First-Brazil nut	Brazil nut	GN201-50	50
First-Canola	Canola	GN202-50	50
First-Cashew	Cashew	GN203-50	50
First-Celery	Celery	GN204-50	50
First-Corn	Corn	GN205-50	50
First-Cotton	Cotton	GN206-50	50
First-Gluten	Gluten	GN225-50	50
First-Hazelnut	Hazelnut	GN207-50	50
First-Lupine	Lupine	GN208-50	50
First-Macadamia	Macadamia	GN209-50	50
First-Duplex Mustard	mustard white/mustard brown & black	GN210-50	50
First-Peanut	Peanut	GN211-50	50
First-Pecan	Pecan	GN212-50	50
First-Pistachio	Pistachio	GN213-50	50
First-Plant	Plant in general, single copy	GN214-50	50
First-Potato	Potato	GN216-50	50
First-Rice	Rice	GN217-50	50
First-Sesame	Sesame	GN218-50	50
First-Soft Wheat	First-Soft Wheat (Triticum aestivum)	GN233-50	50
First-Soya	Soybean	GN219-50	50
First-Walnut	Walnut	GN220-50	50
First-Wheat	Wheat (Triticum spp.)	GN221-50	50
First-Wheat Quant	quantification of soft wheat in total wheat Triticum spp./T. aestivum	GN222-50	50
First-Plant Triplex 1	Corn/Canola/Soya	GN224-50	50



# First-PCR Microorganisms

### Screening with differentiation

Product	Description	REF	Rxn.
QuickGEN P1 Screening high QuickGEN P1 Screening low QuickGEN P1 Screening white QuickGEN P1 Screening low MG QuickGEN P1 Screening	Screening and differentiation of beer spoilage bacteria and yeast (Lactobacillus, Pediococcus/Megasphaera, Pectinatus/yeast)	Q021 Q022 Q023 Q024 Q025	48 48 48 48 50
QuickGEN P1 Screening without yeast high QuickGEN P1 Screening without yeast low QuickGEN P1 Screening without yeast white QuickGEN P1 Screening without yeast	Screening and differentiation of beer spoilage bacteria (Lactobacillus,Pediococcus/Megasphaera,Pectinatus)	Q031 Q032 Q033 Q035	48 48 48 48
QuickGEN P1 and Acetic acid bacteria Screening	Detection and differentiation of beer spoilage bacteria, yeast and acetic acid bacteria	Q944	48
QuickGEN P1 and S.cer. var.diastaticus Screening high QuickGEN P1 and S.cer. var.diastaticus Screening low QuickGEN P1 and S.cer. var.diastaticus Screening white QuickGEN P1 and S.cer. var.diastaticus Screening lowMG QuickGEN P1 and S.cer. var.diastaticus Screening	Screening and differentiation of beer spoilage bacteria Lactobacillus,Pediococcus/ Megasphaera,Pectinatus) and S.cerevisiae var. diastaticus	Q041 Q042 Q043 Q044 Q045	48 48 48 48 50
QuickGEN P1 Screening and hop resistance high QuickGEN P1 Screening and hop resistance low QuickGEN P1 Screening and hop resistance white QuickGEN P1 Screening and hop resistance low MG QuickGEN P1 Screening and hop resistance	Screening and differentiation of beer spoilage bacteria (Lactobacillus,Pediococcus/Megasphaera,Pectinatus) and hop resistance genes	Q051 Q052 Q053 Q054 Q055	48 48 48 48 50
QuickGEN Beer yeast and bacteria differentiation high QuickGEN Beer yeast and bacteria differentiation low QuickGEN Beer yeast and bacteria differentiation white	Screening and differentiation of beverage spoilage bacteria and yeast	Q071 Q072 Q073	96 96 96
QuickGEN Beer Differentiation high QuickGEN Beer Differentiation low QuickGEN Beer Differentiation white	Detection and identification of 30 beer spoiling species	Q081 Q082 Q083	96 96 96
QuickGEN Biofilm	Detection and differentiation of biofilm producing bacteria and yeast (Lactococcus lactis, Leuconostoc mesenteroides, Wickerhamomyces anomalus)	Q095	50



Product	Description	REF	Rxn.
QuickGEN Hop resistance	Detection and differentiation of hop resistance genes (horA,horC,hitA,orf5)	Q105	50
QuickGEN Wine Screening high QuickGEN Wine Screening low QuickGEN Wine Screening white QuickGEN Wine Screening low MG	Screening and differentiation of wine spoilage bacteria (Lactobacillus, Pediococcus/Oenococcus oeni/Acetic acid bacteria) and yeast	Q321 Q322 Q323 Q324	48 48 48 48
QuickGEN Wine Screening without yeast high	Screening and differentiation of wine spoilage bacteria	Q331	48
QuickGEN Wine Screening without yeast low		Q332	48
QuickGEN Wine Screening without yeast white		Q333	48
QuickGEN Wine Screening without yeast low MG		Q334	48
QuickGEN Wild yeast 1 low	Detection of wild yeast group 1	Q522	48
QuickGEN Wild yeast 1		Q525	50
QuickGEN Wild yeast 2 low	Detection of wild yeast group 2	Q532	48
QuickGEN Wild yeast 2		Q535	50
QuickGEN Yeast Differentiation high	Screening and identification of wild yeasts	Q541	96
QuickGEN Yeast Differentiation low		Q542	96
QuickGEN Yeast Differentiation white		Q543	96
Biogenic Amines	Detection of biogenic amines	Q345	50



### Identification Bacteria

Product	Description	REF	Rxn.
Alicyclobacillus differentiation	Identification of Alicyclobacillus spp., Alicyclobacillus acidolcaldarius and Alicyclobacillus acidoterrestris	Q928	50
QuickGEN Alicyclobacillus differentiation high QuickGEN Alicyclobacillus differentiation low QuickGEN Alicyclobacillus differentiation white QuickGEN Alicyclobacillus differentiation low MG	Identification of Alicyclobacillus spp.  Alicyclobacillus acidolcaldarius and  Alicyclobacillus acidoterrestris	Q721 Q722 Q723 Q724	48 48 48 48
Lactobacillus brevis/brevisimilis/parabrevis	Identification of L.brevis/L.brevisimilis/parabrevis	Q922	50
Lactobacillus buchneri/parabuchneri	Identification of L.buchneri/parabuchneri	Q953	50
Lactobacillus casei/ paracasei/rhamnosus/zeae	Identification of L.casei/paracasei/rhamnosus/zeae	Q923	50
Lactobacillus plantarum/paraplantarum	Identification of L.plantarum/paraplantarum	Q925	50
Lactobacillus rossiae	Identification of L.rossiae	Q926	50
Pediococcus damnosus	Identification of <i>P.damnosus</i>	Q954	50
Pectinatus/Megasphaera differentiation	Identification of <i>Pectinatus</i> and <i>Megasphaera</i>	Q955	50
QuickGEN Pectinatus/Megasphaera differentiation low	Identification of <i>Pectinatus</i> and <i>Megasphaera</i>	Q112	48
QuickGEN Oenococcus oeni high QuickGEN Oenococcus oeni low QuickGEN Oenococcus oeni white QuickGEN Oenococcus oeni	Identification of Oenococcus oeni	Q351 Q352 Q353 Q355	48 48 48 50
QuickGEN Acetic acid bacteria high QuickGEN Acetic acid bacteria low QuickGEN Acetic acid bacteria white QuickGEN Acetic acid bacteria	Identification of Acetic acid bacteria	Q511 Q512 Q513 Q515	48 48 48 50



### Identification Pathogens (+ IC)

Product	Description	REF	Rxn.
Campylobacter diff.	C. jejuni, C. lari and C. coli	GN706-50	50
Campylobacter diff. Complete	ready to use incl. DNA-extraction Kit	GN707-200	200
QuickGEN PCR-Kit Enterobacteriaceae	Detection of Enterobacteriaceae	Q145	50
First-Salmonella	Salmonella enterica	GN700-50	50
First-Salmonella Plus	Salmonella enterica incl. DNA-extraction Kit	GN701-200	200
First Salmonella Complete	Salmonella enterica ready to use incl. DNA-extraction Kit	GN702-200	200
First-Legionella Multiplex PCR Kit	Legionella spp. and Legionella pneumophila	Q949	50
First-L. monocytogenes	Listeria monocytogenes	GN703-50	50
First-L. monocytogenes Plus	Listeria monocytogenes incl. DNA-extraction Kit	GN704-200	200
First-L. monocytogenes Complete	Listeria monocytogenes ready to use incl. DNA-extraction Kit	GN705-200	200



### **Identification Yeast**

Product	Description	REF	Rxn.
QuickGEN Yeast Candida spp. high	Identification of Candida spp. (C.albicans, C.glabrata, C.sake, C.parapsilosis, C.tropicalis, C.kefyr, C.intermedia)	Q581	48
QuickGEN Yeast Candida spp. low		Q582	48
QuickGEN Yeast Candida spp. white		Q583	48
QuickGEN Yeast Dekkera spp. high	Identification of Dekkera spp. (D.anomala,D.bruxellensis, D.custersiana, D.naardenensis, D.nanus)	Q551	48
QuickGEN Yeast Dekkera spp. low		Q552	48
QuickGEN Yeast Dekkera spp. white		Q553	48
QuickGEN Yeast Dekkera spp.		Q555	50
QuickGEN Yeast Dekkera.anomala high	Identification of <i>D.anomala</i>	Q571	48
QuickGEN Yeast Dekkera.anomala low		Q572	48
QuickGEN Yeast Dekkera.anomala white		Q573	48
QuickGEN Yeast Dekkera.anomala		Q575	50
Dekkera bruxellensis DNA Standard	DNA standard for quantitation of Dekkera bruxellensis	Q360	200000 cfu
QuickGEN Yeast Dekkera bruxellensis high	Identification of <i>D.bruxellensis</i> quantitative	Q371	48
QuickGEN Yeast Dekkera bruxellensis low		Q372	48
QuickGEN Yeast Dekkera bruxellensis white		Q373	48
Dekkera bruxellensis quantitative FAM/HEX	Identification of <i>D.bruxellensis</i> quantitative	Q395	50
Dekkera bruxellensis quantitative FAM/ROX	Identification of <i>D.bruxellensis</i> quantitative	Q385	50
QuickGEN Yeast S.cerevisiae var.diastaticus high	Identification of S.cerevisiae var.diastaticus	Q181	48
QuickGEN Yeast S.cerevisiae var.diastaticus low		Q182	48
QuickGEN Yeast S.cerevisiae var.diastaticus white		Q183	48
QuickGEN Yeast S.cerevisiae var.diastaticus		Q185	50
QuickGEN Yeast Bottom fermented high	Identification of bottom fermented yeast	Q161	48
QuickGEN Yeast Bottom fermented low		Q162	48
QuickGEN Yeast Bottom fermented white		Q163	48
QuickGEN Yeast Bottom fermented		Q165	50
QuickGEN Yeast Top fermented high	Identification of top fermented yeast	Q151	48
QuickGEN Yeast Top fermented low		Q152	48
QuickGEN Yeast Top fermented white		Q153	48
QuickGEN Yeast Top fermented		Q155	50



Product	Description	REF	Rxn.
QuickGEN Yeast Wickerhamomyces anomalus high	Identification of W.anomalus	Q171	48
QuickGEN Yeast Wickerhamomyces anomalus low		Q172	48
QuickGEN Yeast Wickerhamomyces anomalus white		Q173	48
QuickGEN Yeast Wickerhamomyces anomalus		Q175	50
QuickGEN Yeast Candida spp. high	Identification of Candida spp. (C.albicans, C.glabrata, C.sake, C.parapsilosis, C.tropicalis, C.kefyr, C.intermedia)	Q581	48
QuickGEN Yeast Candida spp. low		Q582	48
QuickGEN Yeast Candida spp. white		Q583	48
QuickGEN Yeast Zygosaccharomyces bailii high	Identification of <i>Z.bailii</i>	Q561	48
QuickGEN Yeast Zygosaccharomyces bailii low		Q562	48
QuickGEN Yeast Zygosaccharomyces bailii white		Q563	48
QuickGEN Yeast Zygosaccharomyces bailii		Q565	50
QuickGEN Yeast Zygosaccharomyces rouxii high	Identification of <i>Z.rouxii</i>	Q571	48
QuickGEN Yeast Zygosaccharomyces rouxii low		Q572	48
QuickGEN Yeast Zygosaccharomyces rouxii white		Q573	48
QuickGEN Yeast Zygosaccharomyces rouxii		Q575	50
QuickGEN Yeast Pichia spp. high	Identification of <i>Pichia spp.</i> (W.anomalus, P.fermentans, P.membranaefaciens, P.guilliermondii)	Q581	48
QuickGEN Yeast Pichia spp. low		Q582	48
QuickGEN Yeast Pichia spp. white		Q583	48
QuickGEN Yeast Pichia spp.		Q585	50



### Precoated PCR strips for different real-time PCR devices are available



Applied Biosystems ABI 7500 or higher

Roche LC®480 II IT-IS MyGo Pro
Agilent Mx3005P

BioRad CFX96™

BioRad CFX96™

BioRad CFX96™

CyantStudio® 5

ThermoFisher QuantStudio® 5

ThermoFisher QuantStudio® 5

ThermoFisher QuantStudio® 5

Analytik Jena qTower

4-plex MyGo Pro



### **Sampling**

### PolyBIND<sup>®</sup>

The separation and enrichment of microorganisms from large volumes or viscous liquids always posed a problem for microbiological diagnostics in beverage industry.

Due to blocking phenomens filtration- or centrifugation methods are time consuming or fail completely.

The new developed PolyBIND® particles enable the very first time the quick and easy isolation of microorganisms from large sample volumes and highly viscous or solid-loaded liquids without blocking. They are suitable for binding bacteria, yeast and fungi efficiently due to functionalized surfaces, regardless of sample type and quantity.

#### **Procedure**

- ➤ Binding of the microorganisms existing in a liquid to the PolyBIND® particles
- ➤ Detaching of the microorganism-loaded PolyBIND® particles with a special hardware or process inline-system (), cultivation of the particles
- Microbial diagnostics (e.g. microscoping, real-time PCR)

REF: Q008 (50 preparations)