

Signatory to the Multilateral Agreements of
EA and ILAC for mutual recognition

represented in the

Deutscher Akkreditierungsrat



Accreditation

The **DGA Deutsche Gesellschaft für Akkreditierung mbH** herewith confirms that the

PLANTON GmbH

Am Kiel-Kanal 44
24106 Kiel

with its

Laboratory
for biomolecular and biochemical analytics

is competent under the terms of DIN EN ISO/IEC 17025:2005 to carry out tests in the
fields of

**biomolecular based testing on the presence of specific sequences or structures in
foods, aliments, luxury foods, animal feeding stuffs, raw materials, additives and
other biological material; biochemically and immunologically based testing on
mycotoxins and allergens in foods, aliments, luxury foods, animal feeding stuffs,
raw materials and additives; biomolecular STR-Analysis via PCR for forensics and
paternity testing.**

The annex forms part of the certificate and comprises 9 pages.

The accreditation is valid from **2009-10-14** to **2014-06-16**.

DAR registration number: **DGA-PL-3735.00**

Berlin, 2009-10-14

Univ.-Prof. Dr.-Ing. habil. K. Ziegler
Managing Director



DGA Deutsche Gesellschaft für Akkreditierung mbH

Annex to the accreditation Certificate DGA-PL-3735.00 Accreditation based on DIN EN ISO/IEC 17025:2005

Period of validity: 2009-10-14 to 2014-06-16

Certificate holder:

PLANTON GmbH

Am Kiel-Kanal 44
24106 Kiel

for its

**Laboratory
for biomolecular and biochemical analytics**

Tests in the areas:

**biomolecular based testing on the presence of specific sequences or structures in foods, aliments, luxury foods, animal feeding stuffs, raw materials, additives and other biological material;
biochemically and immunologically based testing on mycotoxins and allergens in foods, aliments, luxury foods, animal feeding stuffs, raw materials and additives;
biomolecular STR-analysis via PCR for forensics and paternity testing**

abbreviations used:

see last page

- *) Within the given test area indicated by *, the laboratory is permitted the use of standard methods or equivalent/similar methods that are not specifically stated in the accreditation certificate without being required to inform and obtain prior approval from the DGA Deutsche Gesellschaft für Akkreditierung mbH. The listed test methods are given only as examples.**

- ***) Within the given test area indicated with **, the laboratory is permitted the modification, development and introduction of test methods without being required to inform and obtain prior approval from the DGA Deutsche Gesellschaft für Akkreditierung mbH. The listed test methods are given only as examples.**



1 Qualitative biomolecular assays

1.1 Detection of genetically modified organisms

1.1.1 Biomolecular assays according to § 64 of German Food and Feed Code*

ASU-L 00.00-31 2002-12	Analysis of food - screening methods for detection of genetically modified DNA-sequences in foods via detection of DNA-sequences commonly used in genetically modified organisms; amendment
ASU-L 15.05-1 2002-05	Analysis of food - detection of genetic modifications in maize (<i>Zea mays</i> L.) via PCR (Polymerase Chain Reaction) and restriction analysis or hybridization of the PCR-product
ASU-L 23.01.22-1 1998-03	Analysis of food - detection of a genetic modification in soybeans by amplification of modified DNA-sequences via PCR (Polymerase Chain Reaction) and hybridization of the PCR-product with a DNA-probe
ASU-L 24.01-1 2002-12	Analysis of food - detection of a genetic modification in potatoes by amplification of modified DNA-sequences via PCR (Polymerase Chain Reaction) and hybridization of the PCR-product with a DNA-probe; amendment

1.2 Species identification in raw material / product

1.2.1 Biomolecular assays according to in house developed test methods **

PLA-SOP0003 2005-04	Species identification of rapeseed
PLA-SOP0004 2005-04	Species identification of maize
PLA-SOP0005 2005-04	Species identification of soy
PLA-SOP0079 2005-04	Species identification of sugar beet, qualitative
PLA-SOP0141 2009-03	Species identification of rice
PLA-SOP0165 2008-03	Species identification of cotton
PLA-SOP0180 2008-03	Species identification of potato
PLA-SOP0191 2009-03	Species identification of mustard



Annex to the Accreditation Certificate DGA-PL-3735.00

PLA-SOP0102 2009-03	Species identification/ -differentiation chicken
PLA-SOP0103 2009-03	Species identification/ -differentiation cattle
PLA-SOP0104 2009-03	Species identification/ -differentiation pig
PLA-SOP0105 2009-03	Species identification/ -differentiation shark
PLA-SOP0106 2006-01	Species identification/ -differentiation turkey
PLA-SOP0006 2005-04	Modification specific detection of RoundupReady- rapeseed
PLA-SOP0007 2009-03	Modification specific detection of LibertyLink- rapeseed
PLA-SOP0008 2005-04	Modification specific detection of Seedlink- rapeseed
PLA-SOP0009 2005-04	Modification specific detection of Laurate- rapeseed
PLA-SOP0010 2005-04	Modification specific detection of OXY235- rapeseed
PLA-SOP0011 2005-04	Modification specific detection of Bt176- maize
PLA-SOP0012 2005-04	Modification specific detection of Bt11- maize
PLA-SOP0013 2009-03	Modification specific detection of MON810- maize
PLA-SOP0014 2005-04	Modification specific detection of MON863-maize
PLA-SOP0015 2005-04	Modification specific detection of CBH351- maize
PLA-SOP0016 2005-04	Modification specific detection of NK603- maize
PLA-SOP0017 2005-04	Modification specific detection of GA21- maize



Annex to the Accreditation Certificate DGA-PL-3735.00

PLA-SOP0018 2009-03	Modification specific detection of T25- maize
PLA-SOP0077 2005-04	Modification specific detection of TC 1507- maize
PLA-SOP0155 2008-04	Modification specific detection of MIR604- maize
PLA-SOP0157 2008-04	Modification specific detection of Herculex RW- maize
PLA-SOP0019 2009-03	Modification specific detection of RoundupReady- soy
PLA-SOP0139 2009-03	Modification specific detection of RoundupReady II- soy
PLA-SOP0163 2008-03	Modification specific detection of A2704- soy
PLA-SOP0081 2005-04	Modification specific detection of GTSB77-sugar beet
PLA-SOP0143 2008-03	Modification specific detection of H7-1- sugar beet
PLA-SOP0082 2005-04	Modification specific detection of T-120-7- sugar beet
PLA-SOP0145 2008-03	Modification specific detection of Amflora – potato EH92
PLA-SOP0149 2008-03	Modification specific detection of BT63-rice
PLA-SOP0020 2005-04	Modification specific detection of CaMV35S-promotor
PLA-SOP0117 2007-03	Modification specific detection of FMV-promotor
PLA-SOP0022 2005-04	Modification specific detection of NPTII-gene
PLA-SOP0134 2008-01	Modification specific detection of synthetic PAT-gene
PLA-SOP0021 2005-04	Modification specific detection of Nopaline-terminator (NOS-T.)
PLA-SOP0092 2009-09	Modification specific detection of FP967-flax



2 Quantitative biomolecular assays

2.1 Quantitative detection of genetically modified organisms

2.1.1 Biomolecular analysis according to in house developed test methods**

PLA-SOP0026 2005-04	RoundupReady-rapeseed (modification specific)
PLA-SOP0027 2009-03	LibertyLink- rapeseed (modification specific)
PLA-SOP0028 2005-04	Seedlink- rapeseed (modification specific)
PLA-SOP0029 2005-04	Laurate- rapeseed (modification specific)
PLA-SOP0030 2005-04	OXY235- rapeseed (modification specific)
PLA-SOP0031 2005-04	Bt176- maize (modification specific)
PLA-SOP0032 2005-04	Bt11- maize (modification specific)
PLA-SOP0033 2009-03	MON810- maize (modification specific)
PLA-SOP0034 2005-04	MON863- maize (modification specific)
PLA-SOP0035 2005-04	CBH351- maize (modification specific)
PLA-SOP0036 2005-04	NK603- maize (modification specific)
PLA-SOP0037 2005-04	GA21- maize (modification specific)
PLA-SOP0038 2009-03	T25- maize (modification specific)
PLA-SOP0078 2005-04	TC 1507- maize (modification specific)
PLA-SOP0156 2008-04	MIR604- maize (modification specific)
PLA-SOP0158 2008-04	Herculex RW- maize (modification specific)
PLA-SOP0039 2009-03	RoundupReady- soy (modification specific)



Annex to the Accreditation Certificate DGA-PL-3735.00

PLA-SOP0140 2009-03	RoundupReady II - soy (modification specific)
PLA-SOP0164 2008-03	A2704- soy (modification specific)
PLA-SOP0083 2005-04	GTSB77- sugar beet (modification specific)
PLA-SOP0144 2008-03	H7-1- sugar beet (modification specific)
PLA-SOP0084 2005-04	T-120-7- sugar beet (modification specific)
PLA-SOP0146 2008-03	Amflora potato EH92 (modification specific)
PLA-SOP0150 2008-03	BT63- rice (modification specific)
PLA-SOP0040 2005-04	CaMV35S-promotor (modification specific)
PLA-SOP0118 2007-03	FMV-promotor (modification specific)
PLA-SOP0042 2005-04	NPTII-gene (modification specific)
PLA-SOP0181 2008-01	synthetic PAT-gene (modification specific)
PLA-SOP0041 2005-04	Nopaline-terminator (NOS-T.) (modification specific)

2.2 Species identification in raw material / product

2.2.1 Quantitative biomolecular assays according to in house developed test methods**

PLA-SOP0023 2005-04	rapeseed (species specific)
PLA-SOP0024 2005-04	Maize (species specific)
PLA-SOP0025 2005-04	Soy (species specific)
PLA-SOP0080 2005-04	Sugar beet (species specific)
PLA-SOP0142 2009-03	Rice (species specific)



PLA-SOP0151
2009-03 Cotton (species specific)

PLA-SOP0152
2009-03 Potato (species specific)

3 Detection of mycotoxins in raw material / product

3.1 Biochemical detection of mycotoxins via HPLC

DIN EN 12955
1999-09 Foodstuffs -
Determination of aflatoxin B₁ and the sum of aflatoxin B₁, B₂, G₁ and G₂ in cereals, shell-fruits and derived products - High Performance Liquid Chromatographic (HPLC) method with post column derivatization and immunoaffinity- column clean-up.

DIN EN 14123
2009-03 Foodstuffs -
Detection of aflatoxin B₁ and the sum of aflatoxin B₁, B₂, G₁ and G₂ in hazelnuts, peanuts, pistachios, figs and paprika powder - High Performance Liquid Chromatographic method with post column derivatisation and immunoaffinity- column clean-up.

DIN EN ISO 14501
2008-01 Milk and milk powder -
Determination of aflatoxin M1 content - clean up by immunoaffinity-chromatography and determination by High Performance Liquid Chromatography

DIN EN 14132
2008-11 Foodstuffs -
Determination of ochratoxin A in barley and roasted coffee HPLC-method with immunoaffinity column clean-up

DIN EN 14352
2004-10 Foodstuffs -
Determination of fumonisin B₁ und B₂ in maize based foods - HPLC- method with immunoaffinity-column clean-up

DIN EN 15791
2008-04 Animal feeding stuffs -
Determination of Deoxynivalenol in animal feed HPLC- method with immunoaffinity column clean-up

DIN EN 15792
2008-04 Animal feeding stuffs -
Determination of zearalenone in animal feed HPLC- method with fluorescence detection and immunoaffinity-column clean-up

DIN EN 14177
2004-03 Foodstuffs -
Determination of patulin in clear and cloudy apple juice and apple puree - HPLC method with liquid/liquid-partition clean-up

PLA-SOP00315
2008-04 Quantitative detection of T2- and HT2- toxin

3.2 Immunological detection of mycotoxins via ELISA

PLA-SOP00300 2008-04	Quantitative detection of Aflatoxin B1 (R-Biopharm test)
PLA-SOP00302 2008-04	Quantitative detection of total Aflatoxin (R-Biopharm test)
PLA-SOP00301 2008-04	Quantitative detection of Aflatoxin M1 (R-Biopharm test)
PLA-SOP00303 2008-04	Quantitative detection of Deoxynivalenol (DON) (R-Biopharm test)
PLA-SOP00306 2008-04	Quantitative detection of Fumonisin (R-Biopharm test)
PLA-SOP00305 2008-04	Quantitative detection of Ochratoxin A (OTA) (R-Biopharm test)
PLA-SOP00304 2008-04	Quantitative detection of Zearalenon (ZEA) (R-Biopharm test)
PLA-SOP00307 2008-04	Quantitative detection of T2- Toxin (R-Biopharm test)

4 Detection of allergens in raw material / product

4.1 Immunological detection of allergens via ELISA

PLA-SOP00350 2008-04	Quantitative detection of crustaceans (ELISA - systems test)
PLA-SOP00351 2008-04	Quantitative detection of Gliadin (R-Biopharm test)
PLA-SOP00352 2008-04	Quantitative detection of β - Lactoglobulin (R-Biopharm test)
PLA-SOP00353 2008-04	Quantitative detection of peanut proteins (R-Biopharm test)
PLA-SOP00354 2008-04	Quantitative detection of egg white proteins (R-Biopharm test)
PLA-SOP00355 2008-04	Quantitative detection of hazelnut proteins (R-Biopharm test)
PLA-SOP00356 2008-04	Quantitative detection of almond proteins (R-Biopharm test)

PLA-SOP00357 2008-04	Quantitative detection of histamine (R-Biopharm test)
PLA-SOP00358 2008-04	Quantitative detection of bovine casein (R-Biopharm test)
PLA-SOP0359 2008-04	Quantitative detection of sesame (ELISA - systems test)

4.2 Biomolecular detection of allergens via PCR

PLA-SOP0088 2008-04	Quantitative species specific detection of celery
PLA-SOP0192 2009-03	Quantitative species specific detection of mustard



5 Biomolecular based STR-analysis via PCR for forensics and paternity testing

PLA-SOP0110 2008-04	DNA isolation of forensic samples
PLA-SOP0111 2008-04	STR- analysis via PowerPlex and ES Kit (Fa. Promega). Includes the following marker systems: Penta E, D18S51, D21S11, TH01, D3S1358, FGA (FIBRA), TPOX, D8S1179, vWA, Amelogenin, Penta D, CSF 1PO, D16S539, D7S820, D13S317, D5S818, SE33 (ACTBP2)
PLA-SOP0132 2009-06	STR- analysis via AmpFISTR SEfiler Plus Kit (Fa. ABI). Includes the following marker systems: D2S1338, D3S1358, D8S1179, D16S539, D18S51, D19S433, D21S11, FGA (FIBRA), SE33 (ACTBP2), TH01, wVa, Amelogenin
PLA-SOP0193 2008-04	STR- analysis via AmpFISTR ^R Identifiler (Fa. ABI). Includes the following marker systems: D8S1179, D21S11, D7S820, CSF1P0, D3S1358, TH01, D13S317, D16S539, D2S1338, D19S433, vWA, TPOX, D18S51, Amelogenin, D5S818, FGA (FIBRA)

abbreviations used:

ASU	Official collection of test methods (Amtliche Sammlung von Untersuchungsverfahren) according to § 64 para. 1 German Food and Feed Code (LFGB)
DIN	German Institute for Standardization (Deutsches Institut für Normung)
DNA	Desoxyribonucleic acid
EN	European norm
ISO	International Organisation for Standardization
PLA-SOP	In -house procedure of PLANTON company