Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-19693-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: **12.07.2022**

Date of issue: 12.07.2022

Holder of certificate:

FoodQS GmbH

at the sites:

Mühlsteig 15, 90579 Langenzenn
Gottlieb-Keim-Str. 60, 95448 Bayreuth

Tests in the fields:

microscopic, physical, physical-chemical, chemical, enzymatic, visual and molecular-biological analyses of food (honey, bee products, syrup, spices, nuts, seeds, dried fruits, oils and fruit juice)

Within the given testing field marked with */ the testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS,**

***)** **the free choice of standard or equivalent testing methods.**

****)** **the testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, the modification, development and refinement of testing methods. The listed testing methods are exemplary.**

Within the scope of accreditation marked with * the testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, to use standards or equivalent testing methods listed here with different issue dates.**

The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of testing laboratories. Laboratories that conform to the requirements of this standard, operate generally in accordance with the principles of DIN EN ISO 9001.

The certificate together with the annex reflects the status as indicated by the date of issue.
The current status of any given scope of accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH at https://www.dakks.de/en/content/accredited-bodies-dakks.

The testing laboratory maintains a current list of all testing methods within the flexible scope of accreditation.

Site: Langenzenn

1 Microscopic Analyses of Honey, Royal Jelly and Bee-pollen ***

DIN 10760 2002-05	Analysis of honey – Determination of the relative frequency of pollen (deviation: upgrading of analytes to starch and yeast, upgrading of Matrix to Royal Jelly and Bee-Pollen)

2 Determination of ingredients and contaminants in honey, syrup and bee products by liquid chromatography (LC) with conventional detectors (FL, RI, UV und ELS)**

DIN 10751-part 3 2002-02	Analysis of honey – Determination of the content of hydroxymethylfurfural – part 3: HPLC method (deviation: *sample preparation*)
DIN 10758 1997-05	Analysis of honey – Determination of saccharides fructose, glucose, saccharose, turanose and maltose - HPLC method (deviation: *sample preparation, extension of further analytes*)
PV12001 2016-03	Analysis of honey – Determination of Phenol - HPLC method
PV13101 2016-03	Analysis of honey – Determination of Methylanthranilat - HPLC method
PV37301 2017-04	Analysis of Honey – Qualitative Determination of gamma-Amylase - HPLC method
PV37201 2017-04	Analysis of Honey – Qualitative Determination of beta-Fructofuranosidase - HPLC method
PV37701 2018-01	Analysis of honey, bee products, syrup – Determination of foreign oligosaccharides, sugar beet syrup marker and Psicose – HPLC-method with ELSD-Detection
PV39301 2019-08	Analysis of honey and syrup – Determination of Mannose – HPLC-method with ELSD-Detection

3 Determination of contaminants in Honey and wax by liquid chromatography (LC) with mass-selective detectors (MS/MS and HRMS) **

PV24051 2019-08	Determination of Dapson in Honey- HPLC method with LC-MS/MS Detection
PV24041 2019-08	Determination of Sulfonamides in Honey and Wax- HPLC method with LC-MS/MS Detection
PV22001 2017-04	Determination of Nitrofuranes in Honey- HPLC method with LC-MS/MS Detection
PV33401 2017-04	Determination of Cymiazole in Honey- HPLC method with LC-MS/MS Detection
PV41001 2019-09	Determination of Pesticides in Honey- HPLC method with LC-MS/MS Detection
PV52101 2018-03	Determination of Amphenicoles in Honey and Wax – HPLC method with LC-MS/MS Detection
PV54201 2019-08	Determination of Neonicotinoides in Honey- HPLC method with LC-MS/MS Detection
PV56101 2019-10	Determination of Pesticides in Wax, HPLC method with LC-MS/MS Detection
PV42001 2018-03	Determination of Nitroimidazoles in Honey - HPLC method with LC-MS/MS Detection
PV20201 2018-03	Determination of Tetracyclines in Wax - HPLC method with LC-MS/MS Detection
PV20202 2018-03	Determination of Chinolones in Wax - HPLC method with LC-MS/MS Detection
PV20203 2018-03	Determination of an Macrolides in Wax - HPLC method with LC-MS/MS Detection
PV24011 2019-08	Determination of Tetracyclines in Honey - HPLC method with LC-MS/MS Detection
PV24031 2019-08	Determination of Chinolones in Honey - HPLC method with LC-MS/MS Detection

PV24021 2019-08	Determination of Macrolides in Honey - HPLC method with LC-MS/MS Detection
PV38801 2019-03	Determination of different syrupmarker in Honey - HPLC method with LC-MS/MS Detection
PV38701 2019-10	Determination of different syrupmarker in Honey - HPLC method with LC-HRMS Detection
PV46002 2019-04	Determination of Tropanalcaloides in Honey – HPLC method with LC-MS/MS Detection
PV29201 2019-04	Determination of perfluoroalkylated substances (PFAS) in Honey - HPLC method with LC-MS/MS Detection
PV29301 2019-08	Determination of quaternary ammonium compounds (QAV) in Honey and syrup - HPLC method with LC-MS/MS Detection
PV39401 2019-09	Determination of Chlorate in Honey - HPLC method with LC-MS/MS Detection
PV39501 2019-10	Determination of DFA (Difructoseanhydrid) in Honey - HPLC method with LC-MS/MS Detection
PV37601 2019-08	Determination of RSM (Ricesyrupmarker) und SMB (Sugar beet syrupmarker) - HPLC method with LC-MS/MS Detection
PV 37801 2019-10	Determination of E150 (qualitative) - HPLC method with LC-MS/MS Detection

4 Determination of ingredients and contaminants in Honey with enzymatic Detection*

ENZYTEC TM *fluid* D-Fructose r-biopharm Id-N°: 5120 2015-12	Determination of Fructose in Honey
ENZYTEC TM *fluid* D-Glucose Id-N°: 5140 r-biopharm 2015-12	Determination of Glucose in Honey

ENZYTEC TM *fluid Glycerol* Thermo scientific Id-N°: 5360 Thermo scientific 2015-12	Determination of Glycerol in Honey
Fluitest®AMYL CNPG3 Analyticon Art. Nr.: - L 11439 2015-01	Determination of Diastase in Honey
DIN 10759 2016-12	Analysis of Honey – Determination of saccharase-activity Part 1: Siegenthaler Method
PV72601 2018-03	Determination of formic acid in Honey, bee products and syrup
PV15101 2018-03	Determination of citric acid in Honey, bee products and syrup

5 Physical, Physical-chemical and visual analyses of Honey and wax ***

DIN 10752 1992-05	Analysis of Honey; determination of water content; refractometric Method
DIN 10753 2000-12	Analysis of Honey – determination of electrical conductivity (deviation: sample preparation)
PV10501 2015-06	Determination of electrical conductivity/pH-value in Honey
PV10201 2015-06	Determination of colour in Honey by photometry
PV11301 2015-06	Determination of Thixotropy in Honey (Louveaux, 1968)
PV55501 2018-02	Determination of total hydrocarbons in wax, gravimetric Method - in accordance with DGF M-V-6
DIN 10754 2002-08	Determination of Proline in Honey and bee products, photometric Method

European Pharmacopoeia 9.0 01-2008	Determination of Acid Value in Wax, titrimetric Method
European Pharmacopoeia 9.0/ 0070 01-2008	Determination of Saponification value in Wax, titrimetric Method
European Pharmacopoeia 9.0/ 0070 01-2008	Determination of Ester value in Wax
European Pharmacopoeia 9.0/ 0070 01-2008	Determination of ratio number in Wax
DGF M-III 3 (75) 2018	Determination of the dropping point in wax, visual inspection
DGF M-III 2b (57) 2018	Determination of density in Wax by pycnometry
European Pharmacopoeia 9.0/ 2.02.15.00 01-2008	Determination of melting point in Wax, visual inspection (Modification: double determination)

6 Determination of ingredients and contaminants in Honey and bee products with gaschromatgraphic (GC) Method with FID, MS and EA-IRMS Detection**

6.1 Determination of ingredients in Honey and bee products with gaschromatgraphic (GC) Method with conventional detectors (FID) **

PV55001 2019-04	Determination of paraffin in beeswax- GC Method with FID Detection
PV55002 2017-05	Determination of fatty acid in beeswax- GC Method with FID Detection

6.2 Determination of ingredients, residues and contaminants in Honey and bee products with gaschromatgraphic (GC) Method with mass-selectiv detektor (MS) **

PV71501 2019-10	Determination of Pesticides in Honey – GC Method with MS-Detection

PV61501 2019-10	Determination of Pyrethroides in Honey – GC Method with MS-Detection
PV62501 2019-10	Determination of veterinary drugs in Honey – GC Method with MS-Detection
PV32101 2017-04	Determination of Dichlorbenzene in Honey – GC Method with MS-Detection
PV56001 2019-10	Determination of Pesticides in beeswax- GC Method with MS Detection
PV33101 2017-04	Determination of Chlordimeform in Honey – GC Method with MS-Detection
PV56201 2018-06	Determination of Dichlorobenzene and Thymol in beeswax; GC-Method with MS Detection

6.3 Determination of ingredients in honey and bee products with 13C-isotopes-mass-spektrometry (EA-IRMS)

AOAC 998.12 2010	Determination of C4-sugars with 13C-Isotopes-Mass spectrometry (EA-IRMS)

7 Determination of contaminants in honey and wax with ELISA-Method ***

Abraxis Glyphosate Plate Assay 500086 2018-01	Determination of Glyphosate in honey and beeswax with ELISA-Method

8 Determination of Aflatoxins in spices, nuts, seeds, dried fruits and bee products by liquid chromatography (LC) with mass-selectiv detektor (MS/MS) **

PV39001 2017-05	Determination of aflatoxines in spices, nuts, seeds, dried fruit und bee products - HPLC Method with LC-MS/MS Detection
DIN EN ISO 16050 2011-09	Determination of aflatoxin B_1 and the total content of aflatoxin B_1, B_2, G_1 und G_2 in cereals, nuts and derived products- High performance liquid chromatographic method (deviation: sample preparation, Detection with LC-MS/MS)

DIN EN ISO 14123 2008-03	Determination of aflatoxin B_1 and the total content of aflatoxin B_1, B_2, G_1 and G_2 in hazelnuts, peanuts, pistachios, figs and paprika powder (deviation: sample preparation, Detection with LC-MS/MS)

9 Determination of genetically modified organisms (GMO) and plants by Real-Time-PCR in honey, syrup and bee products**

PV935101 2018-12	Qualitative Determination of 35S by Real-Time-PCR, Triple Screening
PV935201 2018-12	Qualitative Determination of NOS by Real-Time-PCR, Triple Screening
PV935301 2018-12	Qualitative Determination of FMV by Real-Time-PCR, Triple Screening
PV941601 2018-03	Qualitative Determination of Round-up Ready Soy (Mon-4Ø32 Ø-6) by Real-Time-PCR
PV941801 2018-03	Qualitativer Nachweis von Round-up Ready 2 Yield Soja (MON-89788-1) mittels Real-Time-PCR
PV47101 2018-12	Qualitative Determination of GT73 canola (Mon-ØØØ73-7) by Real-Time-PCR

10 Gravimetric Determination of the dry weight respectively water content in bee products, syrup, agave syrups, dried fruits, nuts and seeds

PV10402 2018-02	Determination of dry weight respectively water content in royal jelly, syrup, agave syrup, nuts, seeds, dried fruits and pollen; gravimetric method

11 Determination of Elements in bee products and syrups by ICP-MS**

PV51103 2019-10	Determination of Lead in Honey, bees products and Wax - with ICP-MS-Detection
PV51104 2019-10	Determination of Cadmium in Honey, bees products and Wax - with ICP-MS-Detektion

PV51102 2019-10	Determination of Arsenic in Honey, bees products and Wax – with ICP-MS-Detektion
PV51106 2019-10	Determination of Mercury in Honey, bees products and Wax – with ICP-MS-Detektion
PV 51204 2019-10	Determination of Lithium in Honey, bees products and Wax – with ICP-MS-Detektion

Site: Bayreuth

Determination of Ingredients as well as parameters of quality and authenticity in honey, Syrup, Oil and Juice by NMR-spectroscopy, evaluating of spectra by database matching with Bruker Honey Profiling **

PV48000 2021-09	Determination of adulteration parameters in Honey by NMR-spectroscopy, Honey ProfilingTM Bruker, Interpretation FoodQS
PV48100 2021-09	Determination of the Origin of Honey, by NMR-spectroscopy, Honey ProfilingTM Bruker, Interpretation FoodQS
PV48200 2021-09	Determination of the type of honey, by NMR-spectroscopy, Honey ProfilingTM Bruker, Interpretation FoodQS
PV48400 2021-09	Determination of Sugars in Honey, by NMR-spectroscopy, Honey ProfilingTM Bruker, Interpretation FoodQS
PV 48500 2021-09	Determination of Acids in Honey, by NMR-spectroscopy, Honey ProfilingTM Bruker, Interpretation FoodQS
PV48600 2021-09	Determination of amino acids in Honey, by NMR-spectroscopy, Honey ProfilingTM Bruker, Interpretation FoodQS
PV48700 2021-09	Determination of markers in Honey, by NMR-spectroscopy, Honey ProfilingTM Bruker, Interpretation FoodQS
PV48800 2021-09	Determination of additional parameters in Honey, by NMR-spectroscopy, Honey ProfilingTM Bruker, Interpretation FoodQS
PV 48101 2021-09	Determination of quality parameters in agave syrup by NMR-spectroscopy
PV48102 2021-09	Determination of authenticity of agave syrup, by NMR-spectroscopy

PV48401 2021-09	Determination of fatty acids in edible oil, by NMR-spectroscopy
PV48402 2021-09	Determination of authenticity of edible oil,, by NMR-spectroscopy
PV48501 2021-09	Determination of authenticity of edible oil, by NMR-spectroscopy
PV48502 2021-09	Determination von fatty acids in olive oil, by NMR-spectroscopy
PV48503 2021-09	Determination of parameters in olive oil, by NMR-spectroscopy
PV48504 2021-09	Determination of Origin of olive oil, by NMR-spectroscopy
PV48601 2021-09	Determination of authenticity of pumpkin seed oil, by NMR-spectroscopy
PV48602 2021-09	Determination of fatty acids of pumpkin seed oil by NMR-spectroscopy
PV48603 2021-09	Determination of Origin of pumpkin seed oil, by NMR-spectroscopy
PV52001 2021-09	Determination of quality parameters of fruit juice, by NMR-spectroscopy SGF-ProfilingTM Bruker, Interpretation FoodQS
PV52002 2021-09	Determination of Fruit juice, type in fruit juice, by NMR-spectroscopy, SGF-ProfilingTM Bruker, Interpretation FoodQS
PV52103 2021-09	Determination of Fruit Juice Origin, type: apple in fruit juice, by NMR-spectroscopy, SGF-ProfilingTM Bruker, Interpretation FoodQS
PV52202 2021-09	Determination of Fruit Juice Origin, type: orange/tangerine in fruit juice, by NMR-spectroscopy, SGF-ProfilingTM Bruker, Interpretation FoodQS
PV52401 2021-09	Determination of Fruit Juice Origin, type: lemon in fruit juice, by NMR-spectroscopy, SGF-ProfilingTM Bruker, Interpretation FoodQS

PV52501 2021-09	Determination of Fruit Juice Origin, type: pineapple in fruit juice, by NMR-spectroscopy, SGF-ProfilingTM Bruker, Interpretation FoodQS
PV52601 2021-09	Determination of Fruit Juice Origin, type: cherry in fruit juice, by NMR-spectroscopy, SGF-ProfilingTM Bruker, Interpretation FoodQS
PV52701 2021-09	Determination of Fruit Juice Origin, type: mango in fruit juice, by NMR-spectroscopy, SGF-ProfilingTM Bruker, Interpretation FoodQS

Abbreviations used:

DIN	Deutsches Institut für Normung e. V.
EN	Europäische Norm
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
PVxxxxx	In house method of FoodQS GmbH