

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-20965-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 01.04.2020

Date of issue: 01.04.2020

Holder of certificate:

**Eurofins Food Integrity Control Services GmbH
Berliner Straße 2, 27721 Ritterhude**

Tests in the fields:

Sensory, microscopic, physical und physico-chemical analysis of honey as well as other bee products and syrups

Within the given testing field marked with *), the testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, the following: the modification, development and refinement of testing methods.

The listed testing methods are exemplary.

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

This document is a translation. The definitive version is the original German annex to the accreditation certificate.

Abbreviations used: see last page

*The certificate together with its annex reflects the status at the time of the date of issue. The current status of the scope of accreditation can be found in the database of accredited bodies of Deutsche Akkreditierungsstelle GmbH.
<https://www.dakks.de/en/content/accredited-bodies-dakks>*

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Analysis of honey as well as other bee products and syrup

1 Sensory analysis

ICS SOP 520-02
2018-08 Sensory analysis - Simple descriptive analysis of honey
(visual appearance, odor, taste, texture)

2 Determination of sediment (water insoluble substances) by microscopic analysis *

DIN 10760
2002-05 Analysis of honey - determination of the relative pollen content
(Modification: *sample weigh-in*)

ICS SOP 520-08
2018-05 Analysis of honey - determination of the yeast content by microscopy

ICS SOP 520-10
2018-05 Analysis of honey - determination of the starch content by microscopy

3 Determination of components and foreign substances by liquid chromatography with conventional detectors (UV, ELSD) *

DIN 10758
1997-05 Analysis of honey - determination of the content of saccharides
fructose, glucose, sucrose, turanose and maltose -
HPLC method
(Modification: *ELSD detector, sample weigh-in, flow rate*)

ICS SOP 510-08
2019-09 Determination of the hydroxymethylfurfural (HMF) content in honey
and syrups by HPLC-UV

ICS SOP 520-04
2018-05 Determination of the β - and γ -amylase activity in honey by HPLC-UV
(foreign amylases)

ICS SOP 520-05
2018-08 Analysis of honey - determination of the β -fructofuranosidase activity
by LC-ELSD

ICS SOP 520-09
2019-08 Analysis of honey - determination of oligosaccharides foreign to honey
by LC-ELSD

ICS SOP 520-14
2019-10 Analysis of honey - determination of mannose and psicose by LC-ELSD

ICS SOP 510-15
2019-09 Determination of 10-HDA in royal jelly by HPLC-UV

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ICS SOP 510-16 Determination of MGO and DHA in honey by HPLC
2019-09

4 Determination of components, foreign substances, residues and contaminants by liquid chromatography with mass-selective detectors (MS/MS, HR-MS) *

ICS SOP 510-12 Determination of methyl anthranilate in honey by LC-HRMS
2018-08

ICS SOP 520-06 Determination of SM-R in honey by LC-HRMS
2018-08

ICS SOP 520-12 Determination of E150d in honey by LC-HRMS
2018-08

ICS SOP 520-17 Analysis of honey by LC-HRMS to detect fraudulent addition of sugar syrups
2018-07

ICS SOP 520-19 Determination of SM-B in honey by LC-HRMS
2019-09

ICS SOP 520-20 Analysis of agave syrup by LC-HRMS to detect fraudulent addition of sugar syrups
2019-09

ICS SOP 530-01 Analysis of honey - determination of amphenicols by LC-MS
2018-07

ICS SOP 530-02 Analysis of honey - determination of nitroimidazoles by LC-MS
2018-07

ICS SOP 530-03 Analysis of honey - determination of sulfonamides and trimethoprim by LC-MS
2018-07

ICS SOP 530-04 Analysis of honey - determination of tetracyclines by LC-MS
2018-07

ICS SOP 530-05 Analysis of honey - determination of macrolides by LC-MS
2018-07

ICS SOP 530-06 Analysis of honey - determination of streptomycin und dihydrostreptomycin by LC-MS
2018-07

ICS SOP 530-07 Analysis of honey - determination of nitrofurantoin metabolites by LC-MS
2018-07

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ICS SOP 530-08 2018-07	Analysis of honey - determination of amitraz by LC-MS
ICS SOP 530-09 2018-07	Analysis of honey - determination of fluoroquinolones by LC- MS
ICS SOP 530-10 2018-08	Determination of pyrrolizidine alkaloids in honey by LC-HRMS
ICS SOP 530-11 2018-07	Analysis of honey - determination of dapson by LC-MS

5 Determination of components by isotope ratio - mass spectrometry (IRMS) *

AOAC 998.12 1999-03	C-4 Plant Sugars in Honey - Internal Standard Stable Carbon Isotope Ratio Method (Protein, Honey)
ICS SOP 520-13 2018-07	Analysis of honey - Determination of honey adulteration by ¹³ C/ ¹² C EA/LC-IRMS (Detection of C ₄ /C ₃ sugars)

6 Determination of components and foreign substances by photometry *

ICS SOP 510-13 2019-09	Determination of ethanol in food (enzymatically) <i>(here in bee products and syrups)</i>
ICS SOP 510-01 2019-10	Determination of the diastase activity in honey according to Phadebas (enzymatically)
ICS SOP 510-04 2018-08	Determination of the diastase activity and the heat-stable diastase activity in honey by Autoanalyzer (enzymatically)
ICS SOP 510-05 2018-03	Determination of the color of honey with the HANNA photometer
ICS SOP 510-07 2018-08	Determination of the glycerol content of honey (enzymatically)
ICS SOP 510-09 2018-08	Determination of the proline content of honey (photometrically)
ICS SOP 510-10 2019-10	Determination of the invertase activity in honey according to Siegenthaler (enzymatically)

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R-Biopharm Citric acid 10139076035 2013-03	Determination of citric acid in food (enzymatically) <i>(here in bee products and syrup)</i>
ICS SOP 520-01 2018-05	Determination of the foreign amylase in honey by enzymatic assay (Foreign Amylase Profiling - FAmYP)

7 Other physical and physicochemical analyses

DIN 10743 2013-05	Analysis of honey - Determination of water-insoluble solids
DIN 10752-2 2018-09	Analysis of honey - Determination of water content - Part 2: Digital refractometric method <i>(Modification: Measuring in Brix, digital refractometer with automatic temperature compensation)</i>
ICS SOP 510-06 2018-08	Determination of the conductivity, pH value and free acid in honey (potentiometrically, conductometrically, titrimetrically)

Abbreviations used:

AOAC	Association of Analytical Communities
DIN	German Institute for Standardisation
EN	European Standard
ICS SOP 5XX-XX	Inhouse method of Eurofins Food Integrity Control Services GmbH
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization

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