DAkkS
Deutsche
Akkreditierungsstelle

Deutsche Akkreditierungsstelle GmbH

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

Valid from: **17.08.2021**

Date of issue: 17.08.2021

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.

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 may be found respectively in the database of accredited bodies of Deutsche Akkreditierungsstelle GmbH https://www.dakks.de/en/content/accredited-bodies-dakks.

Abbreviations used: see last page

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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 2021-03	Determination of the β- and γ-amylase activity in honey by HPLC-UV (foreign amylases)
ICS SOP 520-05 2020-08	Analysis of honey - determination of the β-fructofuranosidase activity by LC-ELSD
ICS SOP 520-09 2021-03	Analysis of honey - determination of oligosaccharides foreign to honey by LC-ELSD
ICS SOP 520-14 2021-03	Analysis of honey - determination of mannose and psicose by LC-ELSD
ICS SOP 510-15 2021-04	Determination of 10-HDA in royal jelly by HPLC-UV

ICS SOP 510-16 2021-03	Determination of MGO and DHA in honey by HPLC

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

ICS SOP 510-12 2018-08	Determination of methyl anthranilate in honey by LC-HRMS
ICS SOP 520-06 2018-08	Determination of SM-R in honey by LC-HRMS
ICS SOP 520-12 2021-04	Determination of E150d in honey by LC-HRMS
ICS SOP 520-17 2021-04	Analysis of honey by LC-HRMS to detect fraudulent addition of sugar syrups
ICS SOP 520-19 2019-09	Determination of SM-B in honey by LC-HRMS
ICS SOP 520-20 2021-04	Analysis of agave syrup by LC-HRMS to detect fraudulent addition of sugar syrups
ICS SOP 530-01 2021-04	Analysis of honey - determination of amphenicols by LC-MS/MS
ICS SOP 530-02 2021-04	Analysis of honey - determination of nitroimidazoles by LC-MS/MS
ICS SOP 530-03 2021-04	Analysis of honey - determination of sulfonamides and trimethoprim by LC-MS/MS
ICS SOP 530-04 2021-04	Analysis of honey - determination of tetracyclines by LC-MS/MS
ICS SOP 530-05 2021-04	Analysis of honey - determination of macrolides by LC-MS/MS
ICS SOP 530-06 2021-04	Analysis of honey - determination of streptomycin und dihydrostreptomycin by LC-MS/MS
ICS SOP 530-07 2021-04	Analysis of honey - determination of nitrofuran metabolites by LC-MS/MS

ICS SOP 530-08 2021-04	Analysis of honey - determination of amitraz by LC-MS/MS
ICS SOP 530-09 2021-04	Analysis of honey - determination of fluoroquinolones by LC- MS/MS
ICS SOP 530-10 2018-08	Determination of pyrrolizidine alkaloids in honey by LC-HRMS
ICS SOP 530-11 2021-04	Analysis of honey - determination of dapsone by LC-MS/MS
ICS SOP 530-14 2021-04	Analysis of bee products - determination of pyrrolizidine alkaloids by LC-MS/MS
ICS SOP 530-15 2021-04	Analysis of bee products - determination of non-authorized substances by LC-MS/MS
ICS SOP 530-16 2021-04	Analysis of bee products – determination of prohibited substances by LC-MS/MS
ICS SOP 530-17 2021-04	Analysis of bee products - determination of streptomycin und dihydrostreptomycin by LC-MS/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 2021-03	Analysis of honey - Determination of honey adulteration by 13C/12C EA/LC-IRMS (Detection of C4/C3 sugars)

6 Determination of residues by ion chromatography with mass-selective detector (IC-MS/MS) *

ICS SOP 530-12 2021-04	Analysis of bee products - determination of glyphosate, AMPA, glufosinate and N-acetly metabolites by IC-MS/MS
ICS SOP 530-13 2021-04	Analysis of bee products – determination of chlorate and perchlorate by IC-MS/MS
ICS SOP 530-18 2021-04	Analysis of bee products - determination of glyphosate, AMPA, glufosinate, N-acetly metabolites, chlorate and perchlorate by IC-MS/MS

7 Determination of components and foreign substances by photometry *

R-Biopharm Citric acid 10139076035 2013-03	Determination of citric acid in food (enzymatically) (*here in bee products and syrup*)
ICS SOP 510-01 2019-10	Determination of the diastase activity in honey according to Phadebas (enzymatically)
ICS SOP 510-04 2021-04	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 2021-04	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)
ICS SOP 510-13 2019-09	Determination of ethanol in food (enzymatically) (*here in bee products and syrups*)
ICS SOP 520-01 2018-05	Determination of the foreign amylase in honey by enzymatic assay (Foreign Amylase Profiling - FAmyP)

8 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 (Modification: *Measuring in Brix, digital refractometer with automatic temperature compensation*)
ICS SOP 510-06 2021-04	Determination of the conductivity, pH value and free acid in honey (potentiometrically, conductometrically, titrimetrically)

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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