

Test Report No. 210-1033025

QSI GmbH - Flughafendamm 9a - D-28199 Bremen

Medino d.o.o. Krnjevo
Ivan Grujic
Bulevar Oslobođenja 29
11319 Krnjevo
SERBIA

Date: 11-Nov-2022

Customer No.:	11802	Sample No.:	422130
Product:	Honig/Honey		
Label: 160822			
Arrival Date:	25-Aug-2022	Start / End of Analysis:	07-Nov-2022 / 11-Nov-2022
Kind/Origin:	Serbia Linden	Packaging:	Glas / glass
Seal:	ohne/without	Temp.:	RT

VA88560 (2021-10) Pesticide Residues, GC/MS/MS, LC/MS/MS-Screening (> 700 substances)*, Honey

Parameter in mg/kg	Result
Pesticides, GC	n.n.
Pesticides, LC	Amitraz (amitraz including the metabolites containing the 2,4 -dimethylaniline moiety expressed as amitraz): n.n. (LOQ: 0,010; MRL: 0,20)

Subcontracting of test not accredited at QSI to laboratory within the Tentamus Group accredited for this test , bilacon GmbH

* LOQ = Reporting limit, n.n. = below LOQ (according to attached parameter list)

MRL = Maximum residue limit

combined procedure from the methods DFG S19 and QuEChERS, also according to AOAC method 2007.01

The expanded relative measurement uncertainty is 50% (coverage factor k=2.58; confidence interval 99 %) without taking the sampling into account.

Conclusion:

With respect to our examination program the sample complies with current EC Regulation 396/2005.

Quality Services International GmbH

Version 0



Jürgen Wehlitz
Test Manager
Food Chemist

This examination is the basis for special decision guidance.

The test results are exclusively related to the items tested for this sample in the above mentioned time frame for analysis. Method and measurement uncertainty details are available upon request. This report is allowed to be copied completely and unchanged but not in extracts. Furthermore, as well as for statements regarding conformity our General Terms and Conditions of Business are applicable.

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Test Report No. 210-1033016

QSI GmbH - Flughafendamm 9a - D-28199 Bremen

Medino d.o.o. Krnjevo
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 11319 Krnjevo
 SERBIA

Date: 10-Nov-2022

Customer No.:	11802	Sample No.:	422130
Product:	Honig/Honey		
Label: 160822			
Arrival Date:	25-Aug-2022	Start / End of Analysis:	07-Nov-2022 / 10-Nov-2022
Kind/Origin:	Serbia Linden	Packaging:	Glas / glass
Seal:	ohne/without	Temp.:	RT

VA45228 (2018-01) Antibiotics, Streptomycins, LC-MS/MS, Honey (LOQ 2 ppb)

Parameter in µg/kg	MRL**	LOQ*	Result
Streptomycin		2	n.n.
Dihydrostreptomycin		2	n.n.

Accredited method

* LOQ = limit of quantitation; n.n. = below LOQ

** no legal limit (MRL) acc. to 470/2009/EC + 37/2010/EU: no permit for use of antibiotics in beekeeping

The expanded relative measurement uncertainty is 40 % (coverage factor k=2.58; confidence interval 99 %) without taking the sampling into account.

Conclusion:

Under consideration of above indicated limit of quantitation this result complies with EU Regulation 37/2010 (residues of pharmacologically active substances in foodstuffs of animal origin).
 Subcontracting within the accredited scope by qualified subcontractor


Markus Krieger
Test Manager
Food Chemist



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Test Report No. 210-1033015

QSI GmbH - Flughafendamm 9a - D-28199 Bremen

Medino d.o.o. Krnjevo
Ivan Grujic
Bulevar Oslobođenja 29
11319 Krnjevo
SERBIA

Date: 10-Nov-2022

Customer No.:	11802	Sample No.:	422130
Product:	Honig/Honey		
Label: 160822			
Arrival Date:	25-Aug-2022	Start / End of Analysis:	07-Nov-2022 / 10-Nov-2022
Kind/Origin:	Serbia Linden	Packaging:	Glas / glass
Seal:	ohne/without	Temp.:	RT

VA45204 (2016-02) Antibiotics, Tetracyclines, LC-MS/MS (LOQ 2 ppb), Honey

Parameter in µg/kg	MRL**	LOQ*	Result
Oxytetracycline***		2	n.n.
Tetracycline***		2	n.n.
Chlortetracycline***		2	n.n.
Doxycycline		2	n.n.
Demeclocycline		2	n.n.
Methacycline		2	n.n.
Minocycline		2	n.n.

Accredited method

* LOQ = limit of quantitation; n.n. = below LOQ

**no legal limit (MRL) acc. to 470/2009/EC + 37/2010/EU: no permit for use of antibiotics in beekeeping

*** Sum of parent drug and its 4-epimer

The expanded relative measurement uncertainty is 40% (coverage factor k=2.58; confidence interval 99 %) without taking the sampling into account.

Conclusion:

Under consideration of above indicated limit of quantitation this result complies with EU Regulation 37/2010 (residues of pharmacologically active substances in foodstuffs of animal origin).


Markus Krieger
Test Manager
Food Chemist



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Test Report No. 210-1033018

QSI GmbH - Flughafendamm 9a - D-28199 Bremen

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 11319 Krnjevo
 SERBIA

Date: 10-Nov-2022

Customer No.:	11802	Sample No.:	422130
Product:	Honig/Honey		
Label: 160822			
Arrival Date:	25-Aug-2022	Start / End of Analysis:	07-Nov-2022 / 10-Nov-2022
Kind/Origin:	Serbia Linden	Packaging:	Glas / glass
Seal:	ohne/without	Temp.:	RT

VA45275 (2018-03) Antibiotics, Macrolides and Fluoroquinolones (31 substances, LOQ 2 ppb ^), Honey

Parameter in µg/kg	MRL**	LOQ*	Result
>>>Macrolide Antibiotics			
Clindamycin		2	n.n.
Sum Erythromycin A***		2	n.n.
Josamycin		2	n.n.
Kitasamycin		2	n.n.
Lincomycin		2	n.n.
Oleandomycin		2	n.n.
Spiramycin		2	n.n.
Mirosamycin		2	n.n.
Tilmicosin		2	n.n.
Tylosin A		2	n.n.
Tylosin B		2	n.n.
>>>Fluoroquinolone Antibiotics			
Enrofloxacin		2	n.n.
Sarafloxacin		2	n.n.
Flumequine		2	n.n.
Difloxacin		2	n.n.
Ciprofloxacin		2	n.n.
Ofloxacin		2	n.n.
Oxolinic acid		2	n.n.
Sparfloxacin		2	n.n.
Danofloxacin		2	n.n.
Fleroxacin		2	n.n.
Norfloxacin		2	n.n.

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Enoxacin	2	n.n.
Marbofloxacin	2	n.n.
Nalidixic acid	2	n.n.
Cinoxacin	2	n.n.
Lomefloxacin	2	n.n.
Nadifloxacin	2	n.n.
Orbifloxacin	2	n.n.
Pazufloxacin	2	n.n.
Pefloxacin	2	n.n.
Pipemidic acid	2	n.n.

Accredited method

* LOQ = limit of quantitation, n.n. = below LOQ

** no legal limit (MRL) acc. to 470/2009/EC + 37/2010/EU: no permit for use of antibiotics in beekeeping

*** contains Erythromycin A and Anhydroerythromycin A

^ Equivalent to FDA method fluoroquinole residues in honey, dated September 29, 2006

The expanded relative measurement uncertainty is 40 % (coverage factor k=2.58; confidence interval 99 %) without taking the sampling into account.

Conclusion:

Under consideration of above indicated limit of quantitation this result complies with EU Regulation 37/2010 (residues of pharmacologically active substances in foodstuffs of animal origin).

Quality Services International GmbH

Version 0

M. Krieger
 Markus Krieger
 Test Manager
 Food Chemist

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Test Report No. 210-1033019

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SERBIA

Date: 10-Nov-2022

Customer No.:	11802	Sample No.:	422130
Product:	Honig/Honey		
Label: 160822			
Arrival Date:	25-Aug-2022	Start / End of Analysis:	07-Nov-2022 / 10-Nov-2022
Kind/Origin:	Serbia Linden	Packaging:	Glas / glass
Seal:	ohne/without	Temp.:	RT

VA45282 (2021-11) Antibiotics, Nitroimidazoles, LC-MS/MS (LOQ 0,5), Honey

Parameter in µg/kg	MRL	LOQ*	Result
Metronidazole	***	0,5	n.n.
Dimetridazole	***	0,5	n.n.
Ronidazole	***	0,5	n.n.
Ipronidazole	**	0,5	n.n.
Ornidazole	**	0,5	n.n.
Tinidazole	**	0,5	n.n.

Accredited method

* LOQ = limit of quantitation, n.n. = below LOQ

** no legal limit (MRL) acc. to 470/2009/EC + 37/2010/EU: no permit for use of antibiotics in beekeeping

*** prohibited substance acc. EU-Regulation 37/2010 Annex Table 2

The expanded relative measurement uncertainty is 40 % (coverage factor k=2.58; confidence interval 99 %) without taking the sampling into account.

Conclusion:

Under consideration of above indicated limit of quantitation this result complies with EU Regulation 37/2010 (residues of pharmacologically active substances in foodstuffs of animal origin).


Markus Krieger
Test Manager
Food Chemist



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Test Report No. 210-1033017

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 SERBIA

Date: 10-Nov-2022

Customer No.:	11802	Sample No.:	422130
Product:	Honig/Honey		
Label: 160822			
Arrival Date:	25-Aug-2022	Start / End of Analysis:	07-Nov-2022 / 10-Nov-2022
Kind/Origin:	Serbia Linden	Packaging:	Glas / glass
Seal:	ohne/without	Temp.:	RT

VA45236 (2010-08) Antibiotics, Sulfonamides and Trimethoprim, LC-MS/MS (LOQ 2ppb), Honey

Parameter in µg/kg	MRL**	LOQ*	Result
Sulfadimethoxine		2	n.n.
Sulfaquinoxaline		2	n.n.
Sulfamethizole		2	n.n.
Sulfachlorpyridazine		2	n.n.
Sulfamoxole		2	n.n.
Sulfadoxine		2	n.n.
Sulfasalazine		2	n.n.
Sulfabenzamide		2	n.n.
Sulfaguanidine		2	n.n.
Sulfanilamide		2	n.n.
Sulfacetamide		2	n.n.
Sulfadiazine		2	n.n.
Sulfathiazole		2	n.n.
Sulfapyridine		2	n.n.
Sulfamerazine		2	n.n.
Sulfamer		2	n.n.
Sulfadimidine (= Sulfamethazine)		2	n.n.
Sulfamethoxypyridazine		2	n.n.
Sulfamethoxazole		2	n.n.
Trimethoprim		2	n.n.
Sulfamonomethoxine		2	n.n.
Sulfaclozine		2	n.n.
Sulfisoxazole		2	n.n.
Succinylsulfathiazole		2	n.n.

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Sulfaphenazole	2	n.n.
Sulfisozole	2	n.n.
Sulfisomidine	2	n.n.
Sulfaethoxypyridazine	2	n.n.
Sulfanitran	2	n.n.
Ormetoprim	2	n.n.

Accredited method

* LOQ = limit of quantitation; n.n. = below LOQ

**no legal limit (MRL) acc. to 470/2009/EC + 37/2010/EU: no permit for use of antibiotics in beekeeping

The expanded relative measurement uncertainty is 40 % (coverage factor k=2.58; confidence interval 99 %) without taking the sampling into account.

Conclusion:

Under consideration of above indicated limit of quantitation this result complies with EU Regulation 37/2010 (residues of pharmacologically active substances in foodstuffs of animal origin).

Quality Services International GmbH

Version 0

M. Krieger
 Markus Krieger
 Test Manager
 Food Chemist



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Test Report No. 210-1033020

QSI GmbH - Flughafendamm 9a - D-28199 Bremen

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 11319 Krnjevo
 SERBIA

Date: 09-Nov-2022

Customer No.:	11802	Sample No.:	422130
Product:	Honig/Honey		
Label: 160822			
Arrival Date:	25-Aug-2022	Start / End of Analysis:	07-Nov-2022 / 09-Nov-2022
Kind/Origin:	Serbia Linden	Packaging:	Glas / glass
Seal:	ohne/without	Temp.:	RT

VA45301 (2022-01) Antibiotics, Nitrofurans Metabolites, LC-MS/MS (LOQ 0,5 ppb), Honey

Parameter in µg/kg	MRL**	LOQ*	Result
Semicarbazide (from Nitrofurazone)		0,5	n.n.
AOZ (from Furazolidone)		0,5	n.n.
AHD (from Nitrofurantoin)		0,5	n.n.
AMAZ (from Furaltadon)		0,5	n.n.

Accredited method

* LOQ = limit of quantitation; n.n. = below LOQ; MRPL (Minimum required performance limit according to 2003/181/EG) = 1 µg/kg

** Prohibited substance acc. EU-Regulation 37/2010 Annex Table 2

The expanded relative measurement uncertainty is 40 % (coverage factor k=2.58; confidence interval 99 %) without taking the sampling into account.

Conclusion:

Under consideration of above indicated limit of quantitation this result complies with EU Regulation 37/2010 (residues of pharmacologically active substances in foodstuffs of animal origin).

Quality Services International GmbH

Version 0



Jürgen Wehlitz
Test Manager
Food Chemist

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Test Report No. 210-1033021

QSI GmbH - Flughafendamm 9a - D-28199 Bremen

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 11319 Krnjevo
 SERBIA

Date: 09-Nov-2022

Customer No.:	11802	Sample No.:	422130
Product:	Honig/Honey		
Label: 160822			
Arrival Date:	25-Aug-2022	Start / End of Analysis:	07-Nov-2022 / 09-Nov-2022
Kind/Origin:	Serbia Linden	Packaging:	Glas / glass
Seal:	ohne/without	Temp.:	RT

VA86214 (2022-01) Chloramphenicol (CAP), LC-MS/MS, Honey (LOQ 0,1 ppb)

Parameter in µg/kg	MRL**	LOQ*	Result
Chloramphenicol		0,1	n.n.

Accredited method

* LOQ = limit of quantitation; n.n. = below LOQ MRPL (2003/181/EG) = 0,3 µg/kg

** Prohibited substance acc. to EU Regulation 37/2010 Annex Table 2

The expanded relative measurement uncertainty is 40 % (coverage factor k=2.58; confidence interval 99 %) without taking the sampling into account.

Conclusion:

Under consideration of above indicated limit of quantitation this result complies with EU Regulation 37/2010 (residues of pharmacologically active substances in foodstuffs of animal origin).

Quality Services International GmbH

Version 0

J. Wehlitz



Jürgen Wehlitz
 Test Manager
 Food Chemist

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Test Report No. 210-1033023

QSI GmbH - Flughafendamm 9a - D-28199 Bremen

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 11319 Krnjevo
 SERBIA

Date: 08-Nov-2022

Customer No.:	11802	Sample No.:	422130
Product:	Honig/Honey		
Label: 160822			
Arrival Date:	25-Aug-2022	Start / End of Analysis:	07-Nov-2022 / 08-Nov-2022
Kind/Origin:	Serbia Linden	Packaging:	Glas / glass
Seal:	ohne/without	Temp.:	RT

VA40800 (2021-10) Authenticity, Honey, LC-HRMS* / LC-MS/MS

Parameter	Result
LC-HRMS Marker:	nicht nachgewiesen / not detected
Detection specific marker rice syrup (SM-R) **	negativ / negative
Detection specific marker beet sugar syrup (SM-B) ***	negativ / negative

Accredited method

* Marker based on QSI LC-HRMS database; The concentration of the marker substances (e.g. SM-R und SM-B) is depending on the sugar syrup used:

** The decision limit SM-R is 5 g/100g compared with a reference rice syrup used by QSI. Borderline range positive SM-R: 5-7 g/100g

*** The decision limit SM-B is 5 g/100g compared with a reference beet sugar syrup used by QSI. Borderline range positive SM-B: 5-10 g/100g

The marker SM-B included in the method is not suitable for authenticity detection for Mexican and Cuban honey according to current knowledge, frequently positive, presumably natural origin of the marker SM-B

Conclusion:

No syrup markers were detected in the course of the study and according to the current status of the QSI LC-HRMS database. With regard to the investigated parameter the honey corresponds to the legal regulations (EU Honey directive 2001/110/EC, Annex 2).

Quality Services International GmbH

Version 0



Jürgen Wehlitz
Test Manager
Food Chemist

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Test Report No. 210-1033014

QSI GmbH - Flughafendamm 9a - D-28199 Bremen

Medino d.o.o. Krnjevo
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Bulevar Oslobođenja 29
11319 Krnjevo
SERBIA

Date: 08-Nov-2022

Customer No.:	11802	Sample No.:	422130
Product:	Honig/Honey		
Label: 160822			
Arrival Date:	25-Aug-2022	Start / End of Analysis:	07-Nov-2022 / 08-Nov-2022
Kind/Origin:	Serbia Linden	Packaging:	Glas / glass
Seal:	ohne/without	Temp.:	RT

VA40500 (2022-10) NMR - Honey-Profiling™, BRUKER evaluation + QSI interpretation, Authenticity and Quality

Parameter	Result
Detection of foreign sugars	Nein/No
Quality	typisch/typical
Geographical origin*	-
Botanical origin*	Linden confirmed
Deviations/Remark	

Accredited method

The quantitative and chemometric evaluation of the NMR-Honey-Profiling Release 3.0.x is performed by Bruker BioSpin GmbH (Accreditation Certificate D-PL-19229-01-00) and the expert interpretation by QSI GmbH.

The quality is evaluated according to EU Honey Directive 2001/110 (esp. HMF, ethanol (> 400 mg/kg untypical/fermentation). If foreign sugars were detected, it is automatically evaluated as untypical.

* Statistical confirmation of origin is only made if we have information in this regard. It is based on the NMR database and does not necessarily agree with the results of a microscopic pollen analysis.

Conclusion:

Based on the current Honey-Profiling™ database of Bruker BioSpin GmbH and the interpretation of QSI, the quality is typisch/typical for honey as defined by Annex II EU Honey Directive 2001/110. Based on the current Honey-Profiling™ database of Bruker BioSpin GmbH and the interpretation of QSI, the NMR profile gives no indication of the presence of foreign sugars. The sample meets the requirements for authentic honey according to Annex I No. 1 of the EU Honey Directive 2001/110.



Jürgen Wehlitz
Test Manager
Food Chemist

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Test Report No. 210-993421

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11319 Krnjevo
SERBIA

Date: 01-Sep-2022

Customer No.:	11802	Sample No.:	422130
Product:	Honig/Honey		
Label: 160822			
Arrival Date:	25-Aug-2022	Start / End of Analysis:	01-Sep-2022 / 01-Sep-2022
Kind/Origin:	Serbia Linden	Packaging:	Glas / glass
Seal:	ohne/without	Temp.:	RT

984302/984304 Thermo VA177 Enzymatic Test for Determination of Fructose/Glucose in homogenous liquid samples with Random Access Analyzer

Parameter	Unit	Result
Fructose	g/100g	37,0
Glucose	g/100g	30,9
F/G-ratio		1,20
Sum Fructose+Glucose	g/100g	67,9

Accredited method

n.n. = below loq (=0,1g/100g)

The expanded relative measurement uncertainty is 4 % (Fructose); 5 % (Glucose); 9 % (F/G) (coverage factor k=2.58; confidence interval 99 %) without taking the sampling into account.

Quality Services International GmbH

Version 0



 Jürgen Wehlitz
 Test Manager
 Food Chemist

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