

RIDA®QUICK Mycotoxin ECO Extractor

Art. No. R5000

Universal extraction buffer for RIDA®QUICK mycotoxin test kits

Information

The RIDA®QUICK Mycotoxin ECO Extractor can be used for the quantitative analysis of different mycotoxins with one sample preparation for the following RIDA®QUICK mycotoxin test kits:

- RIDA®QUICK DON RQS ECO (Art. No. R5911)
- RIDA®QUICK Fumonisin RQS ECO (Art. No. R5606)
- RIDA®QUICK Ochratoxin ECO (Art. No. R5404)
- RIDA®QUICK T-2/HT-2 RQS ECO (Art. No. R5304)
- RIDA®QUICK Zearalenon ECO (Art. No. R5506)

Limit of detection (LoD):

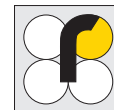
- RIDA®QUICK DON RQS ECO (Art. No. R5911) – 0.2 mg/kg for corn and 0.1 mg/kg for wheat
- RIDA®QUICK Fumonisin RQS ECO (Art. No. R5606) – 0.5 mg/kg for corn
- RIDA®QUICK Ochratoxin ECO (Art. No. R5404) – 2 µg/kg for corn and wheat
- RIDA®QUICK T-2/HT-2 RQS ECO (Art. No. R5304) – 50 µg/kg for corn, 63 µg/kg for wheat and 64 µg/kg for oats
- RIDA®QUICK Zearalenon ECO (Art. No. R5506) – 15 µg/kg for corn, 22.5 µg/kg for wheat

Limit of quantification (LoQ):

- RIDA®QUICK DON RQS ECO (Art. No. R5911) – 0.5 mg/kg for corn and 0.4 mg/kg for wheat
- RIDA®QUICK Fumonisin RQS ECO (Art. No. R5606) – 0.6 mg/kg for corn
- RIDA®QUICK Ochratoxin ECO (Art. No. R5404) – 5 µg/kg for corn and 4 µg/kg for wheat
- RIDA®QUICK T-2/HT-2 RQS ECO (Art. No. R5304) – 50 µg/kg for corn, 200 µg/kg for wheat and 100 µg/kg for oats
- RIDA®QUICK Zearalenon ECO (Art. No. R5506) – 40 µg/kg for corn and wheat

Package content

Component	Format	Volume	Amount
RIDA®QUICK Mycotoxin ECO Extractor Universal extraction buffer for RIDA®QUICK mycotoxin test kits	10x concentration	110 mL	1x



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Warning and precautions for the users

The product is only suitable within the scope of its intended use.

This test should only be carried out by trained laboratory personnel. The instruction for use must be strictly followed.

This kit may contain hazardous substances. For hazard notes on the contained substances please refer to the appropriate material safety data sheets (SDS) for this product, available online at www.r-biopharm.com.

All reagents and materials must be recovered or disposed after use at customers own responsibility according to the protection of human health and the environment. Please observe the applicable national regulations concerning waste disposal (e.g. Waste Management Act, Regulations on Dangerous Chemicals, etc.).

Storage

Store RIDA®QUICK Mycotoxin ECO Extractor (Art. No. R5000) at 2 - 8 °C (36 - 46 °F), do not freeze.

Do not use the universal extraction buffer after the expiry date (see the expiry date on the label).

General instructions for the sample preparation

The sampling should be representative (according to accepted sampling techniques). Make sure that the sample is homogeneous.

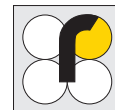
Bring all reagents and samples to room temperature (20 - 25 °C/68 - 77 °F) before use and perform the sample preparation at room temperature.

The universal extraction buffer is available as a 10-fold concentrate and must be diluted 1:10 (1 + 9) with distilled water (e.g. 100 mL buffer concentrate + 900 mL dist. water) before use.

The diluted buffer has a shelf life of 1 week when stored at 2 - 8 °C (36 - 46 °F).

For small number of samples or longer used period of time, it is recommended to dilute only one aliquot (e.g. 25 mL concentrate + 225 mL dist. water).

After taking an aliquot of the universal extraction buffer, close the bottle cap and store at 2 - 8 °C (36 - 46 °F).



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Sample preparation for corn, wheat and oats

Please read the specific instruction for use (IFU) of the respective RIDA®QUICK test kit and the specific application note of the matrix for a detailed description of the test procedure and evaluation.

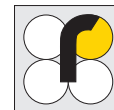
- Grind the sample finely
- Shake vigorously 5 g of ground homogenized sample with 15 mL of ready-to-use RIDA®QUICK Mycotoxin ECO Extractor (Art. No. R5000) for approx. 5 min (manually or with shaker)
- Allow sample to sediment and transfer 1 - 2 mL of the supernatant into a new tube
- Centrifuge: 2 min at 2000 g until a particle-free supernatant can be obtained

Test procedure for corn

Table 1: Overview of test procedure for corn samples after the sample preparation using the RIDA®QUICK Mycotoxin ECO Extractor (Art. No. R5000).

	RIDA®QUICK DON RQS ECO (Art. No. R5911)	RIDA®QUICK Fumonisin RQS ECO (Art. No. R5606)	RIDA®QUICK Ochratoxin ECO (Art. No. R5404)	RIDA®QUICK T-2/HT-2 RQS ECO (Art. No. R5304)	RIDA®QUICK Zearalenon ECO (Art. No. R5506)
Measuring range	0.2 - 7.5 mg/kg	0.5 - 3 mg/kg	2 - 30 µg/kg	50 - 1,000 µg/kg	15 - 500 µg/kg
Dilution I	Dilute 100 µL particle-free supernatant with 900 µL mobile solvent 100 µL dilution I on the application area	Dilute 100 µL particle-free supernatant with 700 µL kit specific ready-to-use extraction buffer 100 µL dilution I on the application area	Dilute 100 µL particle-free supernatant with 100 µL kit specific ready-to-use extraction solution 100 µL dilution I on the application area	Dilute 100 µL particle-free supernatant with 350 µL mobile solvent 100 µL dilution I on the application area	100 µL particle-free supernatant on the application area incubation
Incubation time of dilution I	3 min (method: Corn UEx 0.2 - 7.5 ppm)	5 min (method: Corn UEx 0.5 - 3 ppm)	3 min (method: Corn UEx 2 - 30 ppb)	5 min (method: Corn UEx 50 - 1000 ppb)	5 min (method: Corn UEx 15 - 500 ppb)
Measuring range	7.5 - 50 mg/kg	3 - 10 mg/kg	30 - 150 µg/kg	1,000 - 10,000 µg/kg	500 - 4,000 µg/kg
Dilution II	Dilute 100 µL dilution I with 700 µL mobile solvent 100 µL dilution II on the application area	Dilute 100 µL dilution I with 500 µL kit specific ready-to-use extraction buffer 100 µL dilution II on the application area	Dilute 100 µL dilution I with 200 µL kit specific ready-to-use extraction solution 100 µL dilution II on the application area	Dilute 100 µL dilution I with 900 µL sample buffer 100 µL dilution II on the application area	Dilute 100 µL supernatant with 800 µL ready-to-use extraction solution 100 µL dilution I on the application area
Incubation time of dilution II	3 min (method: Corn UEx 7.5 - 50 ppm)	5 min (method: Corn UEx 3 - 10 ppm)	3 min (method: Corn UEx 30 - 150 ppb)	5 min (method: Corn UEx 1000 - 10000 ppb)	5 min (method: Corn UEx 500 - 4000ppb)

Note: All solutions required for the dilutions are included in the specific test kits (Art. No. R5911, R5606, R5404, R5304, R5506).



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Test procedure for wheat

Table 2: Overview of test procedure for wheat samples after the sample preparation using the RIDA®QUICK Mycotoxin ECO Extractor (Art. No. R5000). The RIDA®QUICK Fumonisin RQS ECO (Art. No. R5606) can be used for wheat samples, please read the application note of wheat samples using the universal extraction buffer.

	RIDA®QUICK DON RQS ECO (Art. No. R5911)	RIDA®QUICK Ochratoxin ECO (Art. No. R5404)	RIDA®QUICK T-2/HT-2 RQS ECO (Art. No. R5304)	RIDA®QUICK Zearalenon ECO (Art. No. R5506)
Measuring range	0.1 - 7.5 mg/kg	2 - 30 µg/kg	63 - 1,000 µg/kg	22.5 - 500 µg/kg
Dilution I	Dilute 100 µL particle-free supernatant with 900 µL mobile solvent 100 µL dilution I on the application area	100 µL particle-free supernatant on the application area	Dilute 100 µL particle-free supernatant with 350 µL mobile solvent 100 µL dilution I on the application area	100 µL supernatant on the application area
Incubation time of dilution I	3 min (method: Wheat UEx 0.1 - 7.5 ppm)	5 min (method: Wheat UEx 2 - 30 ppb)	5 min (method: Wheat UEx 63 - 1000 ppb)	5 min (method: Wheat UEx 22.5 - 500 ppb)
Measuring range	7.5 - 50 mg/kg	30 - 150 µg/kg	1,000 - 10,000 µg/kg	500 - 4,000 µg/kg
Dilution II	Dilute 100 µL dilution I with 700 µL mobile solvent 100 µL dilution II on the application area	Dilute 100 µL particle-free supernatant with 400 µL ready-to-use extraction solution 100 µL dilution I on the application area	Dilute 100 µL dilution I with 900 µL sample buffer 100 µL dilution II on the application area	Dilute 100 µL supernatant with 800 µL ready-to-use extraction solution 100 µL dilution I on the application area
Incubation time of dilution II	3 min (method: Wheat UEx 7.5 - 50 ppm)	5 min (method: Wheat UEx 30 - 150 ppb)	5 min (method: Wheat UEx 1000 - 10,000 ppb)	5 min (method: Wheat UEx 500 - 4,000 ppb)

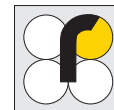
Note: All solutions required for the dilutions are included in the specific test kits (Art. No. R5911, R5404, R5304, R5506).

Test procedure for oats

Table 3: Overview of test procedure for oat samples after the sample preparation using the RIDA®QUICK Mycotoxin ECO Extractor (Art. No. R5000) and the RIDA®QUICK T-2/HT-2 RQS ECO (Art. No. R5304). The RIDA®QUICK DON RQS ECO (Art. No. R5911), RIDA®QUICK Fumonisin RQS ECO (Art. No. R5606) and RIDA®QUICK Ochratoxin ECO (Art. No. R5404) are also available for oat samples, please read the application note document of oat samples using the universal extraction buffer.

	RIDA®QUICK T-2/HT-2 RQS ECO (Art. No. R5304)
Measuring range	64 - 1000 µg/kg
Dilution I	Dilute 100 µL particle-free supernatant with 350 µL mobile solvent 100 µL dilution I on the application area
Incubation time of dilution I	5 min (method: Oats UEx 64 - 1000 ppb)
Measuring range	1000 - 10,000 µg/kg
Dilution II	Dilute 100 µL dilution I with 900 µL sample buffer 100 µL dilution II on the application area
Incubation time of dilution II	5 min (method: Oats UEx 1000 - 10000 ppb)

Note: All solutions required for the dilutions are included in the specific test kit (Art. No. R5304).



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Evaluation

For result interpretation, use only the RIDA®SMART APP software (Art. No. ZRSAM) in combination with an approved smartphone or with the RIDA®SMART BOX (Art. No. ZRSA-SB).

Note: The RIDA®SMART APP software is only available for Android devices.

Recommendation

In order to ensure a high analytical performance we recommend:

- In case of extremely acidic or basic samples, adjust the sample's pH value (pH 6.5 - 7.5) to neutral prior to extraction
- In order to ensure accurate and correct test procedure, please analyze artificially contaminated samples

Further application notes

The following application notes are available on request:

- **RIDA®QUICK DON RQS ECO**, Art. No. R5911
Corn, wheat, oats, barley, sorghum, rice bran, rye, triticale, wheat bran, dried distillers grains (DDG), corn gluten meal (CGM) and soybean meal
- **RIDA®QUICK Fumonisin RQS ECO**, Art. No. R5606
Corn, wheat, oats, barley, sorghum, rice bran, wheat bran, dried distillers grains (DDG) and corn gluten meal (CGM)
- **RIDA®QUICK Ochratoxin ECO**, Art. No. R5404
Corn, wheat, oats, barley, sorghum, rice, rye, feed (pets), dried distillers grains (DDG), corn gluten meal (CGM) and soybean meal
- **RIDA®QUICK T-2/HT-2 RQS ECO**, Art. No. R5304
Corn, wheat, oats, barley, sorghum, rice bran, rye, triticale and soybean meal

For further product information and application notes, please contact your local distributor or R-Biopharm at this address sales@r-biopharm.de.

Disclaimer

The information given in this application note is given as a suggestion for the sample preparation of RIDA®QUICK Mycotoxin ECO Extractor and shall not be regarded as any description or warranty of a certain condition, quality, or functionality of RIDA®QUICK test kits.

Please note: The recipient of this application note must validate any condition and function described herein in the real application. R-Biopharm AG hereby disclaims any and all warranties and liabilities of any kind (including without limitation warranties of non-infringement of intellectual property rights of any third party) with respect to any and all information given in this application note.