

# RIDA® QUICK T-2 / HT-2 RQS

Art. No. R5304

## Product Information

- **Reliable**

Very good recovery rates with naturally contaminated oats samples

- **Sensitive**

Limit of detection (LOD): 50 ppb

- **Fast**

Test results within 5 min

### RIDA® QUICK T-2 / HT-2 RQS

Schnelltest zum Nachweis von T-2 / HT-2 Toxin  
Rapid test for the detection of T-2 / HT-2 Toxin

Inhalt:  
20 x Teststreifen  
1 x Extraktionsmedium (115 ml)  
1 x Laufmedium (8 ml)  
1 x Verdünnungspuffer (20 ml)

Contents:  
20 x Test strips  
1 x Extraction medium (115 ml)  
1 x Mobile solvent (8 ml)  
1 x Diluent (20 ml)

In vitro Test  
Lagerung bei (2 – 8 °C)  
Storage at (2 – 8 °C / 36 – 47 °F)

Verwendbar bis/  
Expiry: JJJJ-MM

Charge/  
Lot: XXXXX

Art. No.: R5304

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r-biopharm



## Product Information

# RIDA®QUICK T-2 / HT-2 RQS

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RIDA®QUICK T-2 / HT-2 RQS is an immunochromatographic test for the quantitative analysis of T-2 / HT-2 toxin in oats, maize and wheat in combination with the RIDA®QUICK SCAN reader (Art. No. ZG5005).

## Background

Within the EU guidance levels apply for the sum of T-2 and HT-2 toxin in food and feed.

T-2 and HT-2 toxin belong to the trichothecene group of mycotoxins and are formed by fungi of the genus *Fusarium*. T-2 and HT-2 toxin are often found in agricultural commodities, although the incidence and the concentrations show a broad regional variation. Due to their high cytotoxic and immunosuppressive mode of action T-2 / HT-2 toxins are a threat for human and animal health.

## Brief Information

**Technology:** Lateral flow test

**Format:** 20 single-packed test strips

**Extraction:** Water-based extraction buffer (included)

**Sample preparation:** Grinding, shaking, filtration or centrifugation, dilution

**Incubation time:** 5 min

**Limit of detection (LOD):** 50 ppb (µg/kg)

**Detection range:** 50 - 800 ppb (µg/kg) / 500 - 8000 ppb (with additional dilution step)

## Benefits

**Easy:** Simple and quick aqueous extraction

**Fast:** Rapid one-step test procedure

**Precise:** Reproducible, quantitative results

**EU compliant:** Specifications comply with most guidance levels

## Test Principle

The basis of the immunochromatographic assay in test strip format is an antigen-antibody reaction. A specific antibody against T-2 / HT-2 toxin binds the T-2 / HT-2 toxin molecules in the samples. The test band intensity is directly proportional to the T-2 / HT-2 concentration of the sample. The control band (control line) should be present in all cases in order to prove that the test strip is valid.

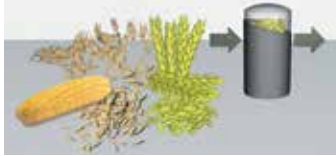
Results are evaluated with RIDA®QUICK SCAN (RQS) reader (Art. No. ZG5005).

# RIDA<sup>®</sup> QUICK T-2 / HT-2 RQS

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## Test Procedure: 10 g sample, LOD 50 ppb, method: T-2/HT-2 Quant

1



Grind the sample, mix thoroughly and weigh 10 g into a screwable tube

2



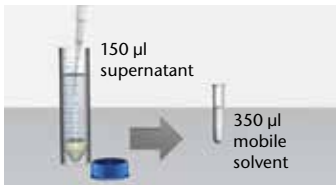
Fill 45 ml of the ready-to-use extraction buffer into a plastic tube, add the sample, close the tube and shake vigorously for 3 min

3



Filter the solution or centrifuge (2 min, 2,000 g)

4



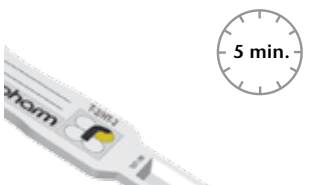
Dilute 150 µl of the clear supernatant with 350 µl mobile solvent

5



Pipette 100 µl onto the application area of the test strip

6



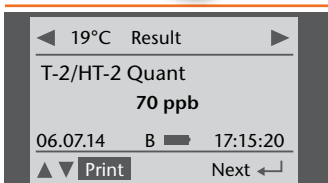
Incubate the test for exactly 5 min

7

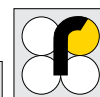


Put the strip into the test strip insert and start the measurement

8



Read and/or print the result



## Product Information

# RIDA® QUICK T-2 / HT-2 RQS

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## Limit of Detection (LOD)

Oats	
Negative samples	c [ppb (µg/kg)]
n = 9	3
	21
	12
	26
	21
	9
	22
	33
	32
	Mean
SD	10
LOD	50

## Recovery

Oats						
Naturally contaminated samples	Lot 1		Lot 2		LC-MS/MS	
	c [ppb (µg/kg)]	Recovery [%]	c [ppb (µg/kg)]	Recovery [%]	c [ppb (µg/kg)]	
n = 9	ND	ND	ND	ND	–	
	ND	ND	ND	ND	–	
	–	–	86	113	76	
	73	88	69	89	77	
	101	88	103	90	115	
	–	–	131	109	120	
	120	93	102	79	129	
	–	–	165	98	168	
	141	89	194	108	180	
	168	87	200	104	193	
Mean	89		97		739	
Spiked samples	+ 139 ppb			+ 639 ppb		
	c [ppb (µg/kg)]	Recovery [%]	Mean Recovery [%]	Recovery [%]	c [ppb (µg/kg)]	Mean Recovery [%]
50 % T-2 / 50 % HT-2	150	108	110	604	95	97
	154	111		599	94	
	153	110		660	103	
70 % T-2 / 30 % HT-2	148	106	106	625	98	98
	153	110		573	90	
	139	100		675	106	
30 % T-2 / 70 % HT-2	146	105	111	646	101	100
	149	107		651	102	
	166	120		619	97	

c = concentration  
 SD = standard deviation  
 LOD = limit of detection

## Product Information

# RIDA® QUICK T-2 / HT-2 RQS

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## Limit of Detection (LOD)

Maize		
Negative samples	Lot 1	Lot 2
	c [ppb (µg/kg)]	c [ppb (µg/kg)]
n = 9	0	5
	0	0
	0	0
	0	0
	0	5
	0	8
	4	13
	0	5
	24	0
<b>Mean</b>	<b>3</b>	<b>4</b>
<b>SD</b>	<b>8</b>	<b>5</b>
<b>LOD</b>	<b>27</b>	<b>19</b>

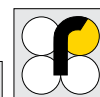
## Recovery

Maize						
Spiked samples	+ 100 ppb			+ 600 ppb		
	c [ppb (µg/kg)]	Recovery [%]	Mean Recovery [%]	Recovery [%]	c [ppb (µg/kg)]	Mean Recovery [%]
50 % T-2 / 50 % HT-2	128	128	132	533	89	101
	124	124		645	108	
	143	143		646	108	
70 % T-2 / 30 % HT-2	114	114	119	599	100	96
	119	119		565	94	
	123	123		557	93	
30 % T-2 / 70 % HT-2	137	137	128	573	96	98
	125	125		598	100	
	121	121		585	98	

c = concentration

SD = standard deviation

LOD = limit of detection



## Product Information

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## Limit of Detection (LOD)

Wheat		
Negative samples	Lot 1	Lot 2
	c [ppb (µg/kg)]	c [ppb (µg/kg)]
n = 9	0	0
	2	2
	0	25
	0	5
	25	26
	10	0
	0	0
	0	0
	0	0
<b>Mean</b>	<b>4</b>	<b>6</b>
<b>SD</b>	<b>8</b>	<b>11</b>
<b>LOD</b>	<b>28</b>	<b>39</b>

## Recovery

Wheat						
Spiked samples	+ 100 ppb			+ 600 ppb		
	c [ppb (µg/kg)]	Recovery [%]	Mean Recovery [%]	Recovery [%]	c [ppb (µg/kg)]	Mean Recovery [%]
50 % T-2 / 50 % HT-2	116	116	129	625	104	101
	157	157		560	93	
	115	115		576	96	
70 % T-2 / 30 % HT-2	122	122	120	597	100	99
	122	122		616	103	
	116	116		574	96	
30 % T-2 / 70 % HT-2	118	118	128	603	101	102
	144	144		613	102	
	122	122		614	102	

c = concentration

SD = standard deviation

LOD = limit of detection

## Product Information

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## Related Products

Product	Description	No. of Tests / Amount	Code No.
<b>Toxin T-2 / HT-2</b>			
<b>ELISA Microtiter Plates</b>			
RIDASCREEN® T-2 / HT-2 Toxin	Enzyme immunoassay for quantitative analysis of T-2 and HT-2 toxin in oats, corn, barley and wheat Detection limit: 30 ppb	96 determinations Incubation time: 45 min	R3805
<b>Toxin T-2</b>			
<b>ELISA Microtiter Plates</b>			
RIDASCREEN® T-2 Toxin	Enzyme immunoassay for quantitative analysis of T-2 toxin in cereals and feed Detection limit: < 5 ppb	96 determinations Incubation time: 1 hr 30 min	R3801
RIDASCREEN®FAST T-2 Toxin	Enzyme immunoassay for quantitative analysis of T-2 toxin in cereals and feed Detection limit: < 50 ppb	48 determinations Incubation time: 15 min	R5302
<b>Immunoaffinity Columns</b>			
EASI-EXTRACT® T-2 & HT-2	Immunoaffinity columns for sample clean-up prior to the analysis of T-2 and HT-2 using HPLC	10 columns (3 ml format) 50 columns (3 ml format)	RBRP43 RBRP43B
<b>Trilogy® Dried Standard (dried)</b>			
T-2 Toxin	T-2 Toxin	100 µg/ml after reconstitution	TS-314
HT-2 Toxin	HT-2 Toxin	100 µg/ml after reconstitution	TS-333
<b>Trilogy® Liquid Standard (liquid)</b>			
T-2 Toxin	T-2 Toxin	100 µg/ml acetonitrile (5 ml)	TSL-314
HT-2 Toxin	HT-2 Toxin	100 µg/ml acetonitrile (5 ml)	TSL-333
<b>Trilogy® Certified Reference Material</b>			
Commodities and mycotoxin concentrations available on request			

For further information or orders please contact R-Biopharm AG:

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