

# RIDA® CYCLER

The multiplex real-time PCR instrument



User-friendly magnetic induction real-time PCR system  
for SureFood® and SureFast® PCR kits

- Easy to use
- Fast
- Compact



Distributed by  
R-Biopharm AG  
E-mail: info@r-biopharm.de  
www.r-biopharm.com

## Features

- Compact** Portable and compact qPCR instrument with Bluetooth technology
- Fast** Fast qPCR results through rapid heating and cooling using a patented magnetic induction technology and fan forced air for cooling
- Easy** High speed centrifugation ensures samples spin down at the start of a run – no extra centrifuge needed
- Pre-loaded oil overlay inside each tube prevents evaporation and condensation
- User-friendly software set-up with pre-loaded thermoprofiles
- Operate up to 10 instruments from one workstation

## Specifications

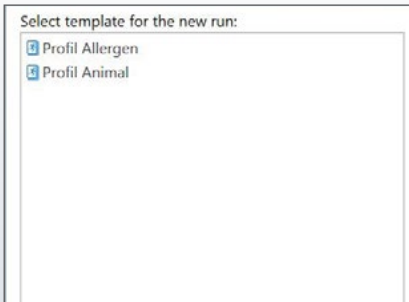
Dimensions	130 x 150 x 150 mm (H x W x L)		
Weight	2.1 kg		
<b>Optical</b>			
Detectors	Photodiode per channel		
Excitation Sources	High power LED for each channel		
4 Channels	Green	Ex 465nm	Em 510nm
	Yellow	Ex 540nm	Em 570nm
	Orange	Ex 585nm	Em 618nm
	Red	Ex 635nm	Em 675nm
Tube format	0.1mL strips of four tubes and matching caps 48 samples per instrument		
Thermal performance	Temperature accuracy: $\pm 0.25$ °C Temperature uniformity: $\pm 0.05$ °C  Ramp rates Heating: 4 °C/s (fast mode) Cooling: 3 °C/s (fast mode)		
<b>Computer minimum requirements</b>			
<ul style="list-style-type: none"> <li>Windows® 7, 32-bit (English version) Operating System</li> <li>.NET Framework 4.5 or higher</li> <li>Intel i5 processor, 2.4 GHz</li> <li>4 GB of RAM</li> <li>1 GB free hard drive capacity</li> </ul>		<ul style="list-style-type: none"> <li>Pointer device</li> <li>USB Drive</li> <li>Adobe® Reader® must be installed to be able to view reports in PDF format</li> <li>Bluetooth®, if this is the preferred connection</li> </ul>	
<b>Calibration</b>			
<b>No calibration required</b> – RIDA®CYCLER is a non-contact system. The rotor is not in contact with anything physical just the induction field.			

# RIDA® CYCLER Software

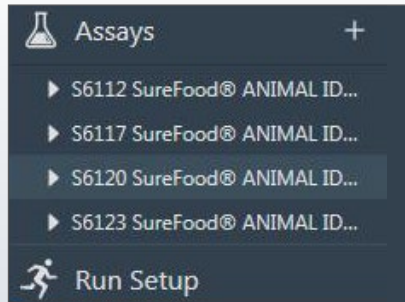
## qPCR Run

User-friendly software set up with all SureFast® and SureFood® assays pre-loaded.  
Start the qPCR run in only 4 steps:

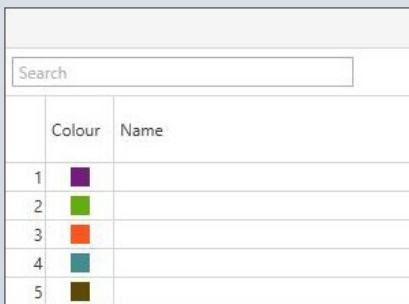
### 1 Select the template



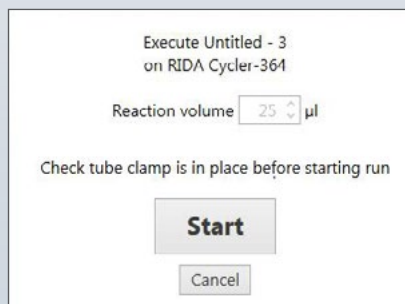
### 2 Select the Assay(s)



### 3 Enter Samples Names



### 4 Start Run



## Results

Analysis options:

**Cycling:** Determination of the quantification cycle (Cq)/ cycle threshold (ct) and reaction efficiency of each sample

Well	Sample	Cq	Efficiency	R <sup>2</sup>
1	NTC			
2	NTC			
3	PTC	27,10	0,98	0,99993
4	PTC	27,08	1,03	0,99980
5	500	29,98	0,98	0,99970
6	500	30,45	0,84	0,99761
7	50	34,04	0,60	0,99992
8	50	32,41	0,75	0,99974
9	5			
10	5	34,43	0,55	0,99842

**Absolute Quantification:** Quantify the unknown concentration of a sample using a standard curve generated with samples of a known quantity

Sample	Concentration (Copies/Reaction)	Efficiency	R <sup>2</sup>
1	10000	0,98	0,99993
2	1000	0,98	0,99970
3	100	0,60	0,99992
4	10	0,75	0,99974
5	1	0,55	0,99842

Report options: Configure the report as needed and export it e.g. as PDF

## Ordering information

Product	Description	Art. No.
RIDA®CYCLER	4 channel qPCR instrument, incl. 1 box of tubes	ZRCYCLER
RIDA®CYCLER-MIC-Tubes	Box with 960 tubes and caps	ZRC-MIC-TUBES

## SureFast® and SureFood® real-time PCR Kits

All kits are validated on the RIDA®CYCLER

### Product range:

- Allergens
- GMO
- Animal species
- Microbiology



**SureFood®/SureFast®  
real-time PCR kits**  
Product Overview

## Benefits

**Size** – qPCR instrument with a small footprint

**Modular** – Connect multiple instruments wireless to one PC

**Convenient** – Pre-loaded assays – no more programming

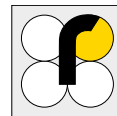
**Reliable results** – Validated for SureFast® and SureFood® real-time PCR Kits

• **Simple**

• **Fast**

• **Accurate results**

For further information please visit: [www.r-biopharm.com](http://www.r-biopharm.com)



# SureFood®/SureFast® real-time PCR kits

Product Overview – 01/2018



- Allergens
- GMO
- Animal Species
- Microbiology
- PREP Basic/Advanced



## SureFood® ALLERGEN/Plant

### SureFood® PREP

Advanced	S1053
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### Extraction control detection kit

SureFast® Animal+Plant Control + ICD	F4053
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### New SureFood® ALLERGEN – qualitative and/or quantitative real-time PCR\*

Gluten	S3606
Soya	S3601
Almond	S3604
Brazil nut	S3617
Cashew	S3615
Hazelnut	S3602
Macadamia	S3616
Peanut	S3603
Pecan	S3618
Pistachio	S3614
Walnut	S3607
Sesame	S3608
Crustaceans	S3612
Fish	S3610
Molluscs**	S3613
Celery	S3605
Lupin	S3611
Mustard	S3609

\* With Internal Amplification Control (IAC) using FAM/HEX

\*\* Qualitative only

### SureFood® ALLERGEN – qualitative real-time PCR

4plex Soya/Celery/Mustard + IAC	S3401
4plex Peanut/Hazelnut/Walnut + IAC	S3402

### SureFast® PLANT – qualitative real-time PCR

Oat PLUS	F6104	Available soon
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### Laboratory reference material for quantitative real-time PCR

SureFood® QUANTARD Allergen 40	S3301
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## SureFood® GMO

### SureFood® PREP

Basic	S1052
Advanced	S1053

### Extraction control detection kit

SureFast® Animal+Plant Control + ICD	F4053
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### SureFood® GMO

Plant PLUS	S2049
Plant	S2056
Plant 4plex Corn/Soya/Canola/Cotton	S2156
Plant 4plex Corn/Soya/Canola + IAC	S2158

### SureFood® GMO SCREEN – qualitative real-time PCR

35S + NOS + FMV	S2026
4plex 35S/NOS/FMV + IAC	S2126
4plex BAR/NPTII/PAT/CTP2:CP4 EPSPS	S2127
CaMV	S2027
P35S:BAR Rice	S2022

\* MON87708+CV127/DP305423/MON87701/MON87769

\*\* MS8/6GT73/T45 Canola

\*\*\* MON88302/DPO734906/RF3 Canola

### SureFood® GMO ID – qualitative real-time PCR

MIR162 Corn	S2035
MON863 Corn	S2037
MS8 Canola	S2062
Bt63 Rice	S2024
Roundup Ready Soya	S2030
RR2Y Soya	S2034
A2704-12 Soya	S2057
4plex Soya I*	S2161
4plex Canola I**	S2166
4plex Canola II***	S2167

### SureFood® GMO QUANT – quantitative real-time PCR

Bt176 Corn	S2015
Bt11 Corn	S2016
T25 Corn	S2017
MON810 Corn	S2019
35S Corn	S2020
NK603 Corn	S2050
MON863 Corn	S2051
MIR162 Corn	S2135
GA21 Corn	S2054
Roundup Ready Soya	S2014
35S Soya	S2028
RR2Y Soya	S2029

## SureFood® ANIMAL

### SureFood® PREP

Basic	S1052
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### Extraction control detection kit

SureFast® Animal+Plant Control + ICD	F4053
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### SureFood® ANIMAL ID – qualitative real-time PCR

4plex Beef/Sheep/Goat + IAAC	S6121
4plex Pork/Chicken/Turkey + IAAC	S6123
4plex Beef/Pork/Horse + IAAC	S6126 <span>New</span>
Beef IAAC	S6113
Horse IAAC	S6118
Horse & Donkey IAAC	S6119
Pork SENS PLUS	S6017
Pork IAAC	S6114
Waterbuffalo IAAC	S6117
Camel IAAC	S6124
Chicken IAAC	S6115
Turkey IAAC	S6116
Cat & Dog IAAC	S6112
Rabbit IAAC	S6120
Poultry IAAC (chicken, turkey, duck, goose)	S6165 <span>New</span>

IAAC = Internal Amplification and Animal Control  
Validated on Bio-Rad CFX96, Qiagen Rotor-Gene Q, Roche LC480 and Stratagene/Agilent Mx3005P

### SureFood® ANIMAL QUANT – quantitative real-time PCR

Beef	S1010
Equus	S1016
Pork	S1011
Chicken	S1014

### SureFood® FISH ID – qualitative real-time PCR

Halibut IAAC 3plex (black and white halibut)	S6201
Oncorhynchus tshawytscha IAAC (chinook salmon)	S6301
Oncorhynchus mykiss IAAC (rainbow trout)	S6302
Oncorhynchus gorbuscha IAAC (pink/humpback salmon)	S6303
Oncorhynchus nerka IAAC (red salmon)	S6304
Salmo trutta IAAC (trout)	S6305
Salmo salar IAAC (atlantic salmon)	S6306
Melanogrammus aeglefinus IAAC (haddock)	S6307
Gadus macrocephalus IAAC (pacific cod)	S6308
Pollachius virens IAAC (pollock/saithe)	S6309
Gadus morhua (IAAC) (atlantic cod)	S6310
Merluccius merluccius (hake)	S6311
Merlangius merlangus IAAC (whiting)	S6312
Gadus chalcogrammus IAAC (alaska pollock)	S6313

FISH ID kits contain 50 reactions

## SureFast® Microbiology

### SureFast® – qualitative real-time PCR

Bacillus cereus group PLUS	F5126
Emetic Bacillus cereus PLUS	F5127 <span>New</span>
Campylobacter PLUS (C. jejuni, C. lari, C. coli)	F5112
Clostridium botulinum Screening PLUS	F5110
Clostridium estertheticum PLUS	F5160
Clostridium perfringens PLUS	F5123
Cronobacter PLUS	F5114
Cronobacter sakazakii PLUS	F5115
Escherichia coli PLUS	F5157
Escherichia coli eae gene PLUS	F5104
EHEC/EPEC 4plex (stx1, stx 2, ipaH, E.coli/Shigella)	F5128
Histomonas meleagridis	F5158
Histomonas meleagridis ONE	F5213
Listeria Screening PLUS	F5117
Listeria monocytogenes PLUS	F5113
Salmonella PLUS	F5111
Salmonella ONE	F5211
Salmonella Serotype 3plex	F5159
Staphylococcus aureus PLUS	F5116
STEC Screening PLUS	F5105
Vibrio 4 plex (V. cholerae, V. parahaemolyticus, V. vulnificus +IAC)	F5161
Yersinia enterocolitica PLUS	F5124
MRSA 4plex ONE	F7217 <span>New</span>
ORT PLUS	F5164 <span>New</span>
STEC 4plex (O157, stx1, stx2, eae)	F5165 <span>New</span>

### SureFast® PREP

Bacteria	F1021
Aqua	F1023
DNA / RNA Virus	F1051
Speed Prep	F1054
PREP Salmonella	F1007

### SureFast® real-time Reverse Transcriptase PCR (qualitative)

Norovirus PLUS	F7001
Norovirus/Hepatitis A 3plex	F7124
Hepatitis A PLUS	F7125
Hepatitis E PLUS	F7142
Influenza H5/H7/H9 4plex	F7139
Influenza A PLUS	F7103

### SureFast® water analysis

PREP Aqua	F1023
Legionella pneumophila PLUS	F5501
Legionella Screen PLUS	F5502
Legionella 3plex	F5505
Pseudomonas aeruginosa PLUS	F5503
Parasitic Water Panel 4plex	F5506
Enterobacteriaceae Screening PLUS	F5507

\* SureFood® Salmonella tests are AOAC-RI (041103) certified

## Benefits

SureFood® kits are distributed worldwide by R-Biopharm AG. The test systems are produced by CONGEN Biotechnologie GmbH located in Berlin, Germany.

The SureFood®/SureFast® product range integrates effective sample preparation with high quality real-time PCR kits.

SureFood®/SureFast® PREP nucleic acid extraction kits are characterized by:

- Easy to use spin filter system
- Matrix optimized methods
- Effective extraction from highly processed food samples
- Only standard laboratory equipment required

SureFood®/SureFast® real-time PCR kits are developed based on long year experience of food analysis on DNA/RNA basis. They cover all relevant applications in fields of allergen, GMO and

pathogen detection as well as animal speciation with following main specifications:

- High sensitivity and specificity
- High reliability
- Robustness
- Direct application support by producer

The SureFood®/SureFast® kits are available for common real-time PCR devices. For kits with internal amplification control this is realized by the PLUS or IAAC system suitable for common qPCR cyclers:

### PLUS 563 - 640 nm

- PLUS kits require a 2-channel device (FAM/HEX)
- 3plex kits require a 3-channel device (FAM/HEX/Cy5)
- 4plex kits require a 4-channel device (FAM/HEX/ROX/Cy5)

The SureFast® ONE kits contains the relevant lysis buffer for fast DNA preparation. An additional DNA preparation kit is not needed.

### **New** Animal and Plant Control + ICD (Art. No. F4053)

Nearly all food and feed comprises of plant or animal origin. To ensure a successful DNA extraction result under given circumstances (matrix, PREP kit and laboratory); this extraction control may be used. Adding an internal control DNA (ICD) to the sample preparation helps to control the extraction procedure. Moreover, a differentiation between the DNA of vertebrates and plants is possible. In case of a positive animal signal, the food cannot be declared as vegetarian.

## Accessories

Product	Description	No. of Tests / Amount	Code No.
<b>Accessories</b>			
SureCC Color Compensation Kit I	Color Compensation for multiplex application of SureFood® kits on LC480	For 3 calibration runs	F4009
SureCC Color Compensation Kit II	Color Compensation for multiplex application of SureFood® kits on LC2.0	For 3 calibration runs	F4010

Color compensation kits are mandatory for LightCycler® 2.0 and LC480.