

Product catalogue 2021

Clinical Diagnostics



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R-Biopharm test systems

at a glance

RIDASCREEN®

- ELISA for antigen and antibody detection
- Ready-to-use reagents
- Easy test procedure
- Standardized incubation time
- Possibility of processing on automated ELISA systems
- Evaluation by the RIDASOFT® Win.NET software



RIDA®QUICK

- Reliable rapid test for antigen detection
- High sensitivity and specificity
- Agents distinguished by color



RIDA®GENE

- Real-time PCR
- Contains all necessary components
- Reliable results due to included extraction control
- Can be run on commonly used real-time PCR instruments





SeraSpot®

- Microspot array for antibody detection in autoimmune or infectious diseases
- For high throupghput on common ELISA processors
- Ready-to-use reagents and universal test protocol
- Built-in controls and reference curve
- Cost and time efficient multiplex diagnostics



RIDA qLine®

- Quantitative immunoblot for antibody detection (IgE) in serum
- Various allergen panels available



Systems

- Flexible range of automated solutions
- Automated solutions for immunological and molecular tests
- ELISA automation solutions from small to high sample throughput
- Assistance in installation and routine by our application specialists



Allergology



Nowadays an allergy is called a specific hypersensitivity of the immune system against substances that are actually harmless. Type V has now been added to the four allergy types (types I - IV) originally classified by Coombs and Gell.

Type I allergy

The most frequent allergic reactions are type I reactions, which take place primarily on epithelial surfaces (skin, lungs, gastrointestinal tract) and are characterized by the formation of specific immunoglobulin E against the allergens. These type I reaction is the cause of allergic rhinitis, asthma, atopic dermatitis, etc.. The occurrence of this allergy type involves TH2 lymphocytes, which cause B lymphocytes to produce specific IgE antibodies, which are then bound to the surface of mast cells. On repeated contact with this allergen and cross-linking of mast cell-bound IgE antibodies, the mast

cell secretes the biogenic amine histamine, which causes the symptoms of the allergy.

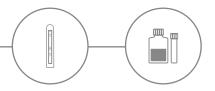
Type II and III allergies

Type II and III allergies are characterized by the formation of immunoglobulin M or G, with type II reactions acting against cell surfaces and type III reactions against soluble antigens. Type III reactions lead by the formation of IgG antibodies immune complexes with the allergens leading for example to the clinical picture of exogenous allergic alveolitis. Furthermore, IgG antibodies against food stuff are suspect to mediate delayed food allergies.

Type IV and V allergies

Type IV reactions are cellular reactions which predominantly involve T lymphocytes.

Granulomatous type V allergy can be considered a variant of type IV allergy, as it also triggers a cell-mediated immune response, but involves macrophages instead of T-lymphocytes.



Immunoblot

Accessories



Allergy diagnostics

As a rule, the allergens are proteins from natural sources such as pollens, animal epithelia, insect venoms, foodstuffs, mites etc., but also medicines such as penicillin and its derivatives can also trigger type I allergies. Patients show often a wide range

of varying symptoms and sensitization patterns against several allergens. It is necessary to test the blood of a patient when suspected of having an allergic reaction on specific IgE antibodies by using the single allergen system RIDASCREEN® Allergy ELISA or the lineblot RIDA qLine® Allergy.



Immunoblots

Product	Description	Matrix	Tests	Art. No.
	Immunoblots for antibody detection			
RIDA qLine®Allergy Panel 1	Immunoblot for quantitative determination of specific IgE in human serum or plasma (citrate) • Standard curve on each strip • 13 inhalative and 7 food allergens • Test membranes (nitrocellulose) in reaction troughs	Serum/ plasma (citrate)	10	A6142
RIDA qLine®Allergy Panel 2	Immunoblot for quantitative determination of specific IgE in human serum or plasma (citrate) • Standard curve on each strip • 20 inhalative allegens • Test membranes (nitrocellulose) in reaction troughs	Serum/ plasma (citrate)	10	A6242
RIDA qLine®Allergy Panel 3	Immunoblot for quantitative determination of specific IgE in human serum or plasma (citrate) • Standard curve on each strip • 20 Food allegens • Test membranes (nitrocellulose) in reaction troughs	Serum/ plasma (citrate)	10	A6342
RIDA qLine®Allergy Panel 4	Immunoblot for quantitative determination of specific IgE in human serum or plasma (citrate) • Standard curve on each strip • 20 Allergens Pediatric panel • Test membranes (nitrocellulose) in reaction troughs	Serum/ plasma (citrate)	10	A6442
	Accessory			
RIDA®CCD-Inhibitor	Accessory for the inhibition of false positive results by cross-reactive anti-CCD IgE in human serum and plasma in in vitro diagnostics	Serum/ plasma (citrate)	25	ZA0601

Individual panels on request. Please ask your local distributor.

Autoimmunity



In autoimmunity, the immune system attacks structures of its own body. Depending on the attacked structure (e.g. nerves, joints, liver), the symptoms and thus the kind of disease vary. Today, around 81 different autoimmune diseases are known. These can be either localized, i.e. organ-specific, or systemic autoimmune diseases.

Many autoimmune diseases are characterized by autoantibodies. The autoantibodies are either directly pathogenic (e.g. anti-GBM) or disease associated. They can be valuable as prognostic markers (e.g. anti-AMA-M2), helpful in patient monitoring (e.g. anti-dsDNA) or necessary for differential diagnosis (e.g. anti-Mi2). Importantly,

the earlier the diagnosis of AID is made the better the outcome is for the patient. This is especially important in progressive e.g. rheumatic, fibrotic diseases that lead to irreversible deficits.

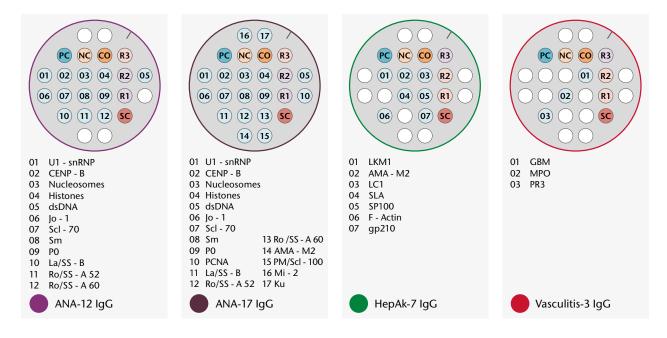
Diagnostics of autoimmune diseases

Autoantibody testing is a central element in the diagnosis and treatment of AID. R-Biopharm offers SeraSpot®, a new microspot array for the diagnosis of autoimmune and infectious diseases. Today, the SeraSpot® platform comprises 4 different microspot arrays plus the microspot array scanner for the diagnosis of connective tissue disease, autoimmune liver diseases or systemic vasculitis and goodpasture disease.





Overview of SeraSpot® tests with respective target antigens:





Autoimmune diseases

Product	Description	Matrix	Tests	Art. No.
	Microspot arrays			
SeraSpot® ANA-12 IgG	Specific detection of IgG antibodies against 12 nuclear and cytoplasmatic antigens	Serum/ plasma	1 x 48 1 x 96	SP-002-12 G-S6 SP-002-12 G-S12
SeraSpot® ANA-17 IgG	Specific detection of IgG antibodies against 17 nuclear and cytoplasmatic antigens	Serum/ plasma	1 x 48 1 x 96	SP-002-17 G-S6 SP-002-17 G-S12
SeraSpot® HepAk-7 IgG	Specific detection of IgG antibodies in autoimmune liver diseases	Serum/ plasma	1 x 48 1 x 96	SP-004-7 G-S6 SP-004-7 G-S12
SeraSpot® Vaskulitis-3 IgG	Specific detection of IgG antibodies in systemic vasculitis	Serum/ plasma	1 x 48 1 x 96	SP-003-3 G-S6 SP-003-3 G-S12



Bacteriology



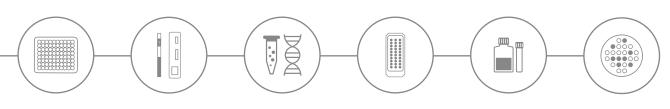
The health services are presented with a significant challenge in terms of diagnosis and treatment of infectious diseases. Effective use of the various diagnostic solutions can significantly improve the detection and control of infectious diseases caused by bacteria. The laboratory procedure must ensure that the information derived from the diagnostic test is reliable and delivered in a timely manner.

Diagnostic solutions in clinical bacteriology

Although the media culture is still the most established method in clinical bacteriology, there is a rising number of diagnostic bacteriology laboratories that

deploy commercial IVD kits in their procedures. The validated, reliable and rapid solutions offer a great advancement over the labour- and time-consuming culture method, in particular with respect to specificity and sensitivity.

The bacteriology test portfolio from R-Biopharm offers a wide range of solutions that meets the diagnostic and organizational needs of small to large laboratories. You may choose from a variety of systems to test for a wide range of parameters including Legionella spp., Mycoplasma spp., Bordetella spp. and Clostridium difficile.



ELISA

Rapid tests

Real-time PCR

Immunofluorescence assay Accessories

Microspot array





Bordetella spp.

Product	Description Real-time PCR	Matrix	Tests	Art. No.
RIDA®GENE Bordetella	Multiplex real-time PCR for the direct qualitative detection and differentiation of Bordetella pertussis, Bordetella parapertussis and Bordetella holmesii DNA in untreated human nasopharyngeal swabs	Nasopha- ryngeal swabs	100	PG2505



Borrelia spp.

	Microspot arrays			
SeraSpot® Anti-Borrelia-10 IgG	Specific detection of IgG antibodies against	Serum/	1 x 96	SP-006-10 G-S12
	Borrelia burgdorferi sensu lato	plasma	10 x 96	SP-006-10 G-S120
SeraSpot® Anti-Borrelia-10 IgM	Specific detection of IgM antibodies against	Serum/	1 x 96	SP-006-10 M-S12
	Borrelia burgdorferi sensu lato	plasma	10 x 96	SP-006-10 M-S120



Campylobacter spp.

	Real-time PCR			
RIDA®GENE Bacterial Stool Panel	Multiplex real-time PCR for the direct qualitative detection and differentiation of Salmonella spp., Campylobacter spp. and Yersinia enterocolitica DNA in untreated human stool samples	Stool	100	PG2405
RIDA®GENE Bacterial Stool Panel I	Multiplex real-time PCR for the direct qualitative detection and differentiation of Salmonella spp., Campylobacter spp., EIEC/Shigella spp. and STEC DNA in untreated human stool samples	Stool	100	PG2415
	Enzyme immunoassay			
RIDASCREEN® Campylobacter	Enzyme immunoassay for the detection of Campylobacter jejuni and Campylobacter coli in human stool samples	Stool	96	C2401
	Reference controls for RIDASCREEN® ELISA			
RIDASCREEN® Campylobacter Reference Controls	Reference controls A (positive) and B (negative)	-	2.0 mL (A) 2.0 mL (B)	CRP2404
	Rapid test	•		
RIDA®QUICK Campylobacter	Immunochromatographic lateral flow rapid assay for the detection of <i>Campylobacter jejuni</i> und <i>Campylobacter coli</i> in human stool samples Single pouched cassettes	Stool	25	N2403
	Controls for RIDA®QUICK	-	-	
RIDA®QUICK Campylobacter Control	Positive control	-	1.8 mL	NP2404



Chlamydophila pneumoniae

Product	Description	Matrix	Tests	Art. No.
	Real-time PCR			
RIDA®GENE CAP Bac	Multiplex real-time PCR for the direct qualitative detection of Chlamydophila pneumoniae, Legionella pneumophila and Mycoplasma pneumoniae DNA in untreated human bronchoalveolar lavage (BAL)	BAL	100	PG2705



Clostridium difficile

	Real-time PCR				
RIDA®GENE CD Toxin A/B	Multiplex real-time PCR for the direct qualitative detection of <i>Clostridium difficile</i> toxin genes A (tcdA) and B (tcdB) in untreated human stool and culture samples	Stool/ cultures	100	PG0825	
RIDA®GENE Clostridium difficile	Multiplex real-time PCR for the direct qualitative detection of Clostridium difficile DNA and Clostridium difficile toxin genes A (tcdA) and B (tcdB) in untreated human stool and culture samples	Stool/ cultures	100	PG0835	
RIDA®GENE Hospital Stool Panel	Multiplex real-time RT-PCR for the direct qualitative detection and differentiation of Norovirus RNA (genogroup I and II), Rotavirus RNA and Clostridium difficile toxin genes A (tcdA) and B (tcdB) in human stool samples	Stool	100	PG0705	
	Enzyme immunoassays				
RIDASCREEN® Clostridium difficile GDH	Enzyme immunoassay for the detection of glutamate dehydrogenase of <i>Clostridium difficile</i> in human stool samples	Stool	96	C0701	
RIDASCREEN® Clostridium difficile Toxin A/B	Enzyme immunoassay for the detection of toxin A and B of Clostridium difficile	Stool	96	C0801	
Reference controls for RIDASCREEN® ELISA					
RIDASCREEN® Clostridium difficile GDH Reference Controls	Reference controls A (positive) and B (negative)	_	2.0 mL (A) 2.0 mL (B)	CRP0704	
RIDASCREEN® Clostridium difficile Toxin A/B Reference Controls	Reference controls A (positive) and B (negative)	_	2.0 mL (A) 2.0 mL (B)	CRP0804	



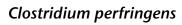






Clostridium difficile

Product	Description	Matrix	Tests	Art. No.
	Rapid tests			
RIDA®QUICK Clostridium difficile GDH	Immunochromatographic lateral flow rapid assay for the detection of <i>Clostridium difficile</i> GDH Single pouched cassettes	Stool	25	N0703
RIDA®QUICK Clostridium difficile Toxin A/B	Immunochromatographic lateral flow rapid assay for the detection of Toxins A and B of C. difficile Single pouched cassettes	Stool	25	N0803
	Controls for RIDA®QUICK			
RIDASCREEN® Clostridium difficile GDH Control	Positive control	_	1.8 mL	NP0704
RIDA®QUICK Clostridium difficile Toxin A/B Control	Positive control	-	1.8 mL	NP0804



	Enzyme immunoassay			
RIDASCREEN® Clostridium perfringens Enterotoxin	Enzyme immunoassay for detection of enterotoxin of <i>Clostridium perfringens</i> in human stool samples	Stool	96	C0601
	Reference controls for RIDASCREEN® ELISA			
RIDASCREEN® Clostridium perfringens Enterotoxin Reference Controls	Reference controls A (positive) and B (negative)	-	2.0 mL (A) 2.0 mL (B)	CRP0604





Escherichia coli

Product	Description	Matrix	Tests	Art. No.
	Real-time PCR			
RIDA®GENE EHEC/EPEC	Multiplex real-time PCR for the direct qualitative detection of DNA for virulence factors of EHEC, STEC, EPEC, and EIEC/Shigella spp. in untreated human stool and culture samples	Stool/ cultures	100	PG2205
RIDA®GENE EAEC	Multiplex real-time PCR for the direct qualitative detection of enteroaggregative <i>E. coli</i> (EAEC) DNA in untreated human stool and culture samples	Stool/ cultures	100	PG2215
RIDA®GENE ETEC/EIEC	Multiplex real-time PCR for the direct qualitative detection of DNA for virulence factors of ETEC and EIEC/Shigella spp. in untreated human stool samples and culture samples	Stool/ cultures	100	PG2225
RIDA®GENE E. coli Stool Panel I	Multiplex real-time PCR for the direct qualitative detection of DNA for virulence factors of EHEC, STEC, and EPEC in untreated human stool samples	Stool	100	PG2285
RIDA®GENE Bacterial Stool Panel I	Multiplex real-time PCR for the direct qualitative detection and differentiation of Salmonella spp., Campylobacter spp., EIEC/Shigella spp. and STEC DNA in untreated human stool samples	Stool	100	PG2415
	Enzyme immunoassay			
RIDASCREEN® Verotoxin	Enzyme immunoassay for the detection of verotoxins 1 and 2 (shigatoxins 1 and 2) of <i>Escherichia coli</i> in a stool enrichment	mTSB- Bouillon	96	C2201
	Reference controls for RIDASCREEN® ELISA			
RIDASCREEN® Verotoxin Reference Controls	Reference controls A (positive) and B (negative)	_	2.0 mL (A) 2.0 mL (B)	CRP2204
	Rapid test			
RIDA®QUICK Verotoxin/O157 Combi	Immunochromatographic rapid assay for the detection of verotoxins and/or <i>E. coli</i> O157 in a stool enrichment Single pouched cassettes	mTSB- Buillon	20	N2203
	Controls for RIDA®QUICK			
RIDA®QUICK Verotoxin/O157 Combi Control	Positive control	-	1.8 mL	NP2204
Enrichment broth	Accessory			
RIDA® Enrichment broth	mTSB-buillon with Mitomycin C for the enrichment of verotoxin (shigatoxin)-producing <i>E. coli</i> bacteria	-	100	Z1000
RIDA® Enrichment broth	mTSB-buillon with Mitomycin C for the enrichment of verotoxin (shigatoxin)-producing <i>E. coli</i> bacteria	_	25	Z1003











Helicobacter pylori

Product	Description	Matrix	Tests	Art. No.
	Real-time PCR			
RIDA®GENE Helicobacter pylori	Multiplex real-time PCR for the direct qualitative detection of <i>Helicobacter pylori</i> DNA and DNA for clarithromycin resistance in untreated human biopsy samples	Biopsy	100	PG2305
	Microspot arrays			
SeraSpot® Anti-Helicobacter-6 IgA	Specific detection of IgA antibodies against Helicobacter pylori	Serum/ plasma	1 x 48 1 x 96	SP-007-6 A-S6 SP-007-6 A-S12
SeraSpot® Anti-Helicobacter-6 IgG	Specific detection of IgG antibodies against Helicobacter pylori	Serum/ plasma	1 x 48 1 x 96	SP-007-6 G-S6 SP-007-6 G-S12
	Enzyme immunoassays			
RIDASCREEN® Helicobacter IgG	Specific detection of IgG antibodies against Helicobacter pylori	Serum	96	K2321
RIDASCREEN® Helicobacter	Enzyme immunoassay for the detection of Helicobacter pylori in human stool samples	Stool	96	C2302
	Reference controls for RIDASCREEN® ELISA			
RIDASCREEN® H. pylori Reference Controls	Reference controls A (positive) and B (negative)	_	2.0 mL (A) 2.0 mL (B)	CRP2304
	Rapid test			
RIDA®QUICK Helicobacter	Immunochromatographic lateral flow rapid assay for the detection of <i>Helicobacter pylori</i> in human stool samples Single pouched cassettes	Stool	25	N2303
	Controls for RIDA®QUICK			
RIDA®QUICK Helicobacter Control	Positive control	_	1.8 mL	NP2304



Legionella spp.

Product	Description	Matrix	Tests	Art. No.
	Real-time PCR			
RIDA®GENE Legionella	Multiplex real-time PCR for the direct qualitative detection and differentiation of <i>Legionella</i> spp. and <i>Legionella pneumophila</i> DNA in human sputum, BAL and tracheal secretion	Sputum/ BAL/tracheal secretion	100	PG8005
RIDA®GENE CAP Bac	Multiplex real-time PCR for the direct qualitative detection of <i>Chlamydophila</i> <i>pneumoniae</i> , <i>Legionella pneumophila</i> and <i>Mycoplasma pneumoniae</i> DNA in untreated human bronchoalveolar lavage (BAL)	BAL	100	PG2705
	Enzyme immunoassay			
RIDASCREEN® Legionella	Enzyme immunoassay for the detection of Legionella pneumophila in human urine samples	Urine	96	C8001
	Reference controls for RIDASCREEN® ELISA			
RIDASCREEN® Legionella Reference Controls	Reference controls A (positive) and B (negative)	_	2.0 mL (A) 2.0 mL (B)	CRP8004
	Immunoflourescence assay			
RIDA® FLUOR Legionella IgG (3 Pools)	Row 1: SG 1 - 6 Row 2: SG 7 - 14 Row 3: L. boz-dum-gor-jord-longb-mic Immunofluorescence assay for detection of IgG antibodies against <i>Legionella pneumophila</i> serogroup 1 - 14 and six non-pneumophila species of <i>Legionella</i>	Serum	10 x 30	18521









Methicillin-resistant/methicillin-sensitive Staphylococcus aureus

Product	Description	Matrix	Tests	Art. No.
	Real-time PCR			
RIDA®GENE MRSA	Multiplex real-time PCR for the direct qualitative detection of methicillin-resistant Staphylococcus aureus (MRSA) and methicillin-susceptible Staphylococcus aureus (MSSA) DNA in untreated human nasal/throat swabs, wound swabs and culture	Swab specimens (nasal/ throat, wound,)/ cultures	100	PG0605
RIDA®GENE PVL	Multiplex real-time PCR for the direct qualitative detection of the PVL-gene (Panton-Valentine leukocidine) in culture samples	Cultures	100	PG0645



Mycoplasma spp.

	Real-time PCR			
RIDA®GENE STI Mycoplasma Panel	Multiplex real-time PCR for the direct qualitative detection and differentiation of <i>Mycoplasma hominis, Mycoplasma genitalium</i> and <i>Ureaplasma urealyticum/parvum</i> DNA in human genital swabs and urine	Genital swab/urine	100	PG4945
RIDA®GENE Mycoplasma pneumoniae	Multiplex real-time PCR for the direct qualitative detection of <i>Mycoplasma pneumoniae</i> DNA in human sputum, BAL and tracheal secretion	Sputum/ BAL/tracheal secretion	100	PG4305
RIDA®GENE CAP Bac	Multiplex real-time PCR for the direct qualitative detection of <i>Chlamydophila pneumoniae</i> , <i>Legionella pneumophila</i> and <i>Mycoplasma pneumoniae</i> DNA in untreated human bronchoalveolar lavage (BAL)	BAL	100	PG2705



Salmonella spp.

	Real-time PCR			_
RIDA®GENE Bacterial Stool Panel	Multiplex real-time PCR for the direct qualitative detection and differentiation of Salmonella spp., Campylobacter spp. and Yersinia enterocolitica DNA in untreated human stool samples	Stool	100	PG2405
RIDA®GENE Bacterial Stool Panel I	Multiplex real-time PCR for the direct qualitative detection and differentiation of Salmonella spp., Campylobacter spp., EIEC/Shigella spp. and STEC DNA in untreated human stool samples	Stool	100	PG2415





Treponema pallidum

Product	Description	Matrix	Tests	Art. No.
	Microspot arrays			
<i>SeraSpot</i> ®	Specific detection of IgG antibodies against	Serum/	1 x 48	SP-010-4 G-S6
Anti-Treponema-4 IgG	Treponema pallidum	plasma	1 x 96	SP-010-4 G-S12
SeraSpot®	Specific detection of IgM antibodies against	Serum/	1 x 48	SP-010-4 M-S6
Anti-Treponema-4 IgM	Treponema pallidum	plasma	1 x 96	SP-010-4 M-S12



Yersinia enterocolitica

	Real-time PCR			
RIDA®GENE Bacterial Stool Panel	Multiplex real-time PCR for the direct qualitative detection and differentiation of <i>Salmonella</i> spp., <i>Campylobacter</i> spp. and <i>Yersinia enterocolitica</i> DNA in untreated human stool samples	Stool	100	PG2405
	Microspot arrays			
SeraSpot® Anti-Yersinia-6 IgA	Specific detection of IgA antibodies against Yersinia enterocolitica	Serum/ plasma	1 x 48 1 x 96	SP-005-6 A-S6 SP-005-6 A-S12
SeraSpot® Anti-Yersinia-6 IgG	Specific detection of IgG antibodies against Yersinia enterocolitica	Serum/ plasma	1 x 48 1 x 96	SP-005-6 G-S6 SP-005-6 G-S12



Various

Akkermansia muciniphila	Real-time PCR			
RIDA®GENE Akkermansia muciniphila	Multiplex real-time PCR for the direct qualitative or quantitative detection of <i>Akkermansia muciniphila</i> DNA in human stool samples	Stool	100	PG0145
Faecalibacterium prausnitzii Real-time PCR				
RIDA®GENE Faecalibacterium prausnitzii	Multiplex real-time PCR for the direct qualitative or quantitative detection of <i>Faecalibacterium</i> prausnitzii DNA in human stool samples	Stool	100	PG0155
Bacteroides/Clostridium Cluste	r XIVa – Real-time PCR			
RIDA®GENE Gut Balance	Multiplex real-time PCR for the direct qualitative or quantitative detection and differentiation of <i>Bacteroides</i> and <i>Clostridium</i> Cluster XIVa DNA in human stool samples	Stool	100	PG0105













Accessories

Product	Description	Matrix	Tests	Art. No.
	Color compensation			
RIDA®GENE Color Compensation Kit I	To generate a Color Compensation File for 3- and 4-plex RIDA®GENE real-time PCR experiments on the LightCycler®480II*	_	3	PG0001
RIDA®GENE Color Compensation Kit II	To generate a Color Compensation File for RIDA®GENE real-time PCR experiments on the LightCycler® 1.5/2.0	_	3	PG0002
RIDA®GENE Color Compensation Kit IV	To generate a Color Compensation File for 5-plex RIDA®GENE real-time PCR experiments on the LightCycler® 480II**	_	3	PG0004
	DNA/RNA extraction			
RIDA® Xtract	Spin-filter based extraction kit for the simultaneous isolation and purification of DNA and RNA in various matrices (serum/ plasma/ cerebral fluid/ cell culture supernatant/ other cell free body fluids (e.g. urine)/ swabs/tissue biopsies/stool)	See description	250 pre- parations	PGZ001



^{*} For RIDAGENE products of the generation 1.0. ** For RIDAGENE products of the generation 2.0.

Gastroenterology



The ELISA tests are suited for single plate or medium-high-throughput analysis on automated readers. Below, you can find the biological markers and their diagnostic relevance at a glance.

Biomarkers for clinical diagnostics

Biological markers (biomarkers) are measurable indicators for specific conditions. The following biomarkers are relevant in gastroenterology:

 Calprotectin is a highly specific indicator of gastrointestinal inflammation which is used for the differentiation of IBD and IBS and for treatment monitoring.

- α1-antitrypsin and slgA indicate the integrity of the gut wall. This is relevant for monitoring and diagnosing a leaky gut syndrome.
- Pancreatic elastase is used for the detection of pancreatic insufficiency and pancreatitis.
- Therapeutic drug monitoring

Therapeutic drug monitoring of infliximab (IFX), adalimumab (ADM), vedolizumab (VDZ) and golimumab (GLM) and ustekinumab (UST) supports the treatment optimization and the reduction of treatment costs.







Inflammatory Bowel Disease and Leaky-Gut Syndrom

Product	Description	Matrix	Tests	Art. No.
	Enzyme immunoassays			
RIDASCREEN® Calprotectin	Enzyme immunoassay for the quantitative determination of calprotectin	Stool	96	G09036
RIDASCREEN® α ₁ -Antitrypsin	Enzyme immunoassay for the quantitative determination of $\alpha_{\rm l}$ -Antitrypsin	Stool	96	G09034
RIDASCREEN® sIgA	Enzyme immunoassay for the quantitative determination of secretoric IgA	Stool	96	G09035
	Stool collection tubes			
RIDA® TUBE	For collection and preparation of stool samples, • Unfilled; to use after internal validation	-	50	GZ3013
RIDA® TUBE Calprotectin	For the collection and preparation of stool samples, • Only for use with RIDASCREEN® Calprotectin (Art. No. G09036)	_	50	GZ3016





Pancreatic Diagnostics

	Enzyme immunoassays			
Pancreatic Elastase ELISA	Enzyme immunoassay for the quantitative determination of pancreatic elastase	Stool	96	G09038
Pancreatic Elastase ELISA (SK15)	Enzyme immunoassay for the quantitative determination of pancreatic elastase; additional standard (SK15)	Stool	96	G09040
	Stool collection tubes			
Stool Preparation Set	For collection and preparation of stool samples, • Only use with Pancreatic Elastase ELISA (Art. No. G09040)	Serum/ plasma	45	GZ3008







Therapeutic drug monitoring (TDM)

Product	Description	Matrix	Tests	Art. No.	
	Enzyme immunoassays				
RIDASCREEN® ADM Monitoring	Enzyme immunoassay for the quantitative determination of adalimumab (ADM)	Serum/ plasma	96	G09043	
RIDASCREEN® Anti-ADM Antibodies	Enzyme immunoassay for the quantitative determination of antibodies to adalimumab (ADM)	Serum/ plasma	96	G09044	
RIDASCREEN® IFX Monitoring	Enzyme immunoassay for the quantitative determination of infliximab (IFX) and its biosimilars	Serum/ plasma	96	G09041	
RIDASCREEN® Anti-IFX Antibodies	Enzyme immunoassay for the quantitative determination of antibodies to infliximab (IFX) and its biosimilars	Serum/ plasma	96	G09042	
RIDASCREEN® VDZ Monitoring	Enzyme immunoassay for the quantitative determination of vedolizumab (VDZ)	Serum/ plasma	96	G09045	
RIDASCREEN® GLM Monitoring	Enzyme immunoassay for the quantitative determination of golimumab (GLM)	Serum/ plasma	96	G09047	
RIDASCREEN® UST Monitoring	Enzyme immunoassay for the quantitative determination of ustekinumab (UST)	Serum/ plasma	96	G09049	
	Rapid tests				
RIDA®QUICK ADM Monitoring	Immunochromatographic lateral flow assay for the quantitative determination of adalimumab (ADM)	Serum/ plasma	25	GN3043	
RIDA®QUICK IFX Monitoring	Immunochromatographic lateral flow assay for the quantitative determination of infliximab (IFX) and its biosimilars	Serum/ plasma	25	GN3041	
Control set for RIDA®QUICK					
RIDA®QUICK ADM Monitoring Control Set	Control set • Accessory for Art. No. GN3043	_	_	GP3043	
RIDA®QUICK IFX Monitoring Control Set	Control set • Accessory for Art. No. GN3041	_	-	GP3041	











Effectively, QC is able to find and correct flaws in the analytical processes of a lab before potentially incorrect patient results are released. Maintaining accurate and frequent checks of laboratory sample testing through quality control is vital to ensuring that patient testing is done right and that it produces accurate results

The Microbix's quality assessment products (QAPs™) are composed of QAPs across the PROCEEDx™, ONBOARDxTM and REDx™ Controls tradenames — to support whole-process accuracy of molecular and immunological tests for bacterial and viral diseases by emulating patient samples while being consistent, non-infectious, stable, and cross-instrument compatible. The QAPs ™ products are quality controls to support the accuracy of testing for respiratory viruses such as SARS-CoV-2 (COVID-19), Flu A, Flu B, and RSV, as well as the

leading edge QAPs [™] for high-risk types of HPV and other sexually-transmitted infections

REDx™ Controls (CE) to ensure day-to-day consistency of an analytical process and assists in determining reliable patient test results.

PROCEEDx™ (RUO) to ensure whether a device complies with its specification or imposed condition. Intended for use in internal processes (Verification). In addition, PROCEEDx™ can also be used to assure that a product meets customer needs and involves acceptance criteria for external users (validation).

ONBOARDx™ (RUO) is a all-encompassing validation and verification kit for instrument/kit/assay qualification and operator training. Kit contains PROCEEDx™ (RUO) material.



Accessories





Respiratory infections

Product	Test compatibility	Art. No.	
		PROCEEDx™	RED x [™] controls
Adenovirus Positive	Immunoassay	VP-15-01	
Adenovirus + Rotavirus Positive	Nucleic acid	VP-15-02	
Chlamydia trachomatis + Neisseria gonorrhoeae Positive	Nucleic acid	VP-12-M2	
HSV 1 & 2 Positive	Nucleic acid; immunoassay	VP-02-M2	
Influenza A Positive	Nucleic acid; immunoassay	VP-13-01	
Influenza A Positive (swab)	Nucleic acid; immunoassay	VP-S-13-01	
Influenza A + Adenovirus Positive	Nucleic acid; immunoassay	VP-13-04	
Influenza A + B Positive	Immunoassay	VP-13-02	
Influenza A + Rotavirus Positive	Immunoassay	VP-13-05	
Influenza A + RSV Positive	Immunoassay	VP-13-03	
Influenza B Positive	Nucleic acid; immunoassay	VP-14-01	
Influenza B Positive (swab)	Nucleic acid; immunoassay	VP-S-14-01	
Influenza B + Adenovirus Positive	Immunoassay	VP-14-03	
Influenza B + Rotavirus Positive	Immunoassay	VP-14-04	
Influenza B + RSV Positive	Immunoassay	VP-14-02	
MDx Negative	Nucleic acid	VP-99-M1	RED-99-M1
Parainfluenza 3 Positive	Nucleic acid	VP-10-M1	
RSV Positive	Nucleic acid; immunoassay	VP-07-01	
RSV Positive (swab)	Nucleic acid; immunoassay	VP-S-07-01	
RSV + Adenovirus Positive	Immunoassay	VP-07-02	
RSV + Rotavirus Positive	Immunoassay	VP-07-03	
SARS-CoV-2 Negative (vial)	Nucleic acid	VP-99-M3	RED-99-M3
SARS-CoV-2 Positive (vial)	Nucleic acid	VP-19-01 RED-19-01	
SARS-CoV-2 Negative (swab)	Nucleic acid	VP-S-99-M4	RED-S-99-M4
SARS-CoV-2 Positive (swab)	Nucleic acid	VP-S-19-01	RED-S-19-01
SARS-CoV-2 Positive Ag (swab)	Immunoassay	VP-S-19-02	

Only available in selected countries.



Respiratory infections

Product	Test compatibility	Kit components	Art. No.
			ONBOARDx™ Kit
SARS-CoV-2 Vial Kit 01	Nucleic acid	SARS-CoV-2 Positive (0.5mL) vial x 8 SARS-CoV-2 Negative (0.5mL) vial x 4	VP-K-CoV2-01
SARS-CoV-2 Swab Kit 01	Nucleic acid	SARS-CoV-2 Positive Swab x 8 SARS-CoV-2 Negative Swab x 4	VP-SK-CoV2-01
Respiratory Swab Kit (RUO)	Nucleic acid	SARS-CoV-2 Positive Swab x 3 Influenza A Positive Swab x3 Influenza B Positive Swab x3 RSV Positive Swab x3	VP-SK-RESP-01
Respiratory Kit (RUO)	Nucleic acid	SARS-CoV-2 Positive Sample 3 x 0.5 mL vial Influenza A Positive Sample 3 x 1.0 mL vial Influenza B Positive Sample 3 x 1.0 mL vial RSV Positive Sample 3 x 1.0 mL vial	VP-K-RESP-01
			ONBOARDx™ Kit
FLOQ® SARS-CoV-2 Ag Swab Kit (RUO)	Immunoassay	SARS-CoV-2 Ag Positive swab x8 Respiratory Negative swab x4	VP-SK-COV2AG-01
FLOQ® SARS-CoV-2 Ag Swab Kit B (RUO)	Immunoassay	Sars-CoV-2 AG Positive swab x15 Respiratory Negative swab x5	VP-SK-COV2AG-02
Respiratory Swab Kit B (RUO)	Immunoassay	SARS-CoV-2 Ag Positive swab x5 Influenza A Positive swab x5 Influenza B Positive swab x5 RSV Positive swab x5	VP-SK-RESPAG-02

Gastrointestinal infections

Product	Test compatibility	Art. No.	
		$PROCEEDx^{TM}$	REDx™ controls
Cryptosporidium Positive	Immunoassay	VP-37-02	
Giardia Positive	Immunoassay	VP-37-03	
Negative	Nucleic acid; immunoassay	VP-99-01	
Negative (swab)	Nucleic acid; immunoassay	VP-S-99-01	
Rotavirus Positive	Immunoassay	VP-35-01	

Only available in selected countries.





Sexually transmitted infections

Product	Test compatibility	Art. No.	Art. No.		
		$PROCEEDx^{TM}$	REDx™ Controls		
Chlamydia trachomatis Positive	Nucleic acid	VP-12-M1			
Chlamydia trachomatis Positive	Immunoassay	VP-12-01			
HPV 16 Positive	Nucleic acid	VP-62-16	RED-62-16		
HPV 18 Positive	Nucleic acid	VP-62-18	RED-62-18		
HPV 31 Positive	Nucleic acid	VP-62-31			
HPV 33 Positive	Nucleic acid	VP-62-33			
HPV 39 Positive	Nucleic acid	VP-62-39			
HPV 45 Positive	Nucleic acid	VP-62-45	RED-62-45		
HPV 67 Positive (hr Negative)	Nucleic acid	VP-62-67			
HSV 1 Positive	Nucleic acid	VP-02-M1			
HSV 2 Positive	Nucleic acid	VP-23-M1			
Mycoplasma genitalium	Nucleic acid	VP-63-01	RED-63-01		
Neisseria gonorrhoeae Positive	Nucleic acid	VP-17-M1			
Trichomonas vaginalis Positive	Nucleic acid	VP-61-02			
Trichomonas vaginalis Positive	Nucleic acid; immunoassay	VP-61-01			

Only available in selected countries.

Mycology



Although fungi play many essential roles in human homeostasis, they may also constitute health burden for certain groups of patients. When the host–fungal pathogen balance is disturbed, a fungal infection may lead to serious consequences. Proper detection of the growth of the fungal agents is therefore of high importance in clinical microbiology.

Pneumocystis jirovecii does not cause any harm in healthy people and is widely spread among the normal population. However, immunocompromised people infected with *Pneumocystis jirovecii*, develop pneumonia with symptoms including dry cough, shortness of breath, tachypnoe and fever. *Pneumocystis jirovecii* causes respiratory infections and is the most common opportunistic illness in HIV-infected people.

Diagnostic solutions for mycology

The mycology tests portfolio from R-Biopharm offers PCR technology that meet the diagnostic needs of laboratories.



Real-time PCR

Accessories





Fungi

Product	Description	Matrix	Tests	Art. No.
Pneumocystis jirovecii	Real-time PCR			
RIDA®GENE Pneumocystis jirovecii	Multiplex real-time PCR for the direct qualitative or quantitative detection of <i>Pneumocystis jirovecii</i> DNA in untreated human bronchoalveolar lavage (BAL)	BAL	100	PG1905



Accessories

DNA/RNA extraction					
RIDA® Xtract	Spin-filter based extraction kit for the simultaneous isolation and purification of DNA and RNA in various matrices (serum/plasma/cerebral fluid/cell culture supernatant/other cell free body fluids (e.g. urine)/swabs/tissue biopsies/stool)	See description	250 preparations	PGZ001	



Parasitology

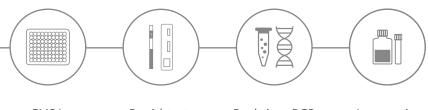


Parasitic infections are caused by three types of organisms: protozoa, helminths and ectoparasites. Infections with protozoa can occur by, for instance, drinking water containing the protozoa organisms' cells or though food that was undercooked. *Giardia lamblia*, *Cryptosporidium parvum*, *Entamoeba histolytica* and *Dientamoeba fragilis* are the most important diarrhea-causing protozoa.

Due to the ease of spread, fast and reliable diagnosis of a parasitic infection at an early stage is crucial for an effective therapy. Immunoassays and molecular diagnostics enable detection and differentiation of parasitic infections sooner than traditional methods, such as microscopy.

Innovative diagnostic solutions for parasitology

R-Biopharm offers various technologies for parasitology that meet the diagnostic and organizational needs of small to large laboratories. You may choose from different diagnostic systems to test for a variety of parasites including *Entamoeba*, *Giardia* and *Cryptosporidium*. We also offer a parasitic stool panel.



Rapid tests

Real-time PCR

Accessories





Cryptosporidium spp.

Product	Description	Matrix	Tests	Art. No.
	Real-time PCR			
RIDA®GENE Parasitic Stool Panel I	Multiplex real-time PCR for the direct qualitative detection and differentiation of Giardia lamblia, Entamoeba histolytica, Cryptosporidium spp. and Dientamoeba fragilis DNA in human stool samples	Stool	100	PG1715
RIDA®GENE Parasitic Stool Panel II	Multiplex real-time PCR for the direct qualitative detection and differentiation of Giardia lamblia, Entamoeba histolytica and Cryptosporidium spp. DNA in human stool samples	Stool	100	PG1725
	Enzyme immunoassay			
RIDASCREEN® Cryptosporidium	Enzyme immunoassay for the detection of Cryptosporidium parvum and Cryptosporidium hominis in human stool samples	Stool	96	C1201
	Reference control for RIDASCREEN® ELISA			
RIDASCREEN® Cryptosporidium Reference Controls	Reference controls A (positive) and B (negative)	-	2.0 mL (A) 2.0 mL (B)	CRP1204







Cryptosporidium spp.

Product	Description	Matrix	Tests	Art. No.
	Rapid tests			
RIDA®QUICK Cryptosporidium	Immunochromatographic rapid assay for the detection of <i>Cryptosporidium parvum</i> and <i>Cryptosporidium hominis</i> in human stool samples Single pouched cassettes	Stool	20	N1203
RIDA®QUICK Cryptosporidium/Giardia Combi	Immunochromatographic rapid assay for the detection of <i>Cryptosporidium parvum</i> , <i>Cryptosporidium hominis</i> and/or <i>Giardia</i> <i>lamblia</i> in human stool samples Single pouched cassettes	Stool	20	N1123
RIDA®QUICK Cryptosporidium/Giardia/ Entamoeba Combi	Immunochromatographic rapid assay for the detection of <i>Cryptosporidium parvum</i> , <i>Cryptosporidium hominis</i> , <i>Giardia lamblia</i> and/or <i>Entamoeba histolytica</i> in human stool samples Single pouched cassettes	Stool	20	N1723
	Controls for RIDA®QUICK			
RIDA®QUICK Parasite Combi Control	Positive control	-	1.8 mL	NP1704

Dientamoeba fragilis

Real-time PCR				
RIDA®GENE Parasitic Stool Panel I	Multiplex real-time PCR for the direct qualitative detection and differentiation of Giardia lamblia, Entamoeba histolytica, Cryptosporidium spp. and Dientamoeba fragilis DNA in human stool samples	Stool	100	PG1715







Entamoeba spp.

Product	Description	Matrix	Tests	Art. No.
	Real-time PCR			
RIDA®GENE Parasitic Stool Panel I	Multiplex real-time PCR for the direct qualitative detection and differentiation of Giardia lamblia, Entamoeba histolytica, Cryptosporidium spp. and Dientamoeba fragilis DNA in human stool samples	Stool	100	PG1715
RIDA®GENE Parasitic Stool Panel II	Multiplex real-time PCR for the direct qualitative detection and differentiation of <i>Giardia lamblia, Entamoeba histolytica</i> and <i>Cryptosporidium</i> spp. DNA in human stool samples	Stool	100	PG1725
Entamoeba	Enzyme immunoassays			
RIDASCREEN® Entamoeba histolytica IgG	Specific detection of IgG antibodies against Entamoeba histolytica	Serum	96	K1721
RIDASCREEN® Entamoeba	Enzyme immunoassay for the detection of Entamoeba histolytica/Entamoeba dispar in human stool samples	Stool	96	C1701
	Reference controls for RIDASCREEN® ELISA			
RIDASCREEN® Entamoeba Reference Controls	Reference controls A (positive) and B (negative)	-	2.0 mL (A) 2.0 mL (B)	CRP1704
	Rapid tests			
RIDA®QUICK Entamoeba	Immunochromatographic rapid assay for the detection of <i>Entamoeba histolytica/Entamoeba dispar</i> in human stool samples Single pouched cassettes	Stool	20	N1703
RIDA®QUICK Cryptosporidium/Giardia/ Entamoeba Combi	Immunochromatographic rapid assay for the detection of <i>Cryptosporidium</i> and/or <i>Giardia</i> and/or <i>Entamoeba</i> in human stool samples Single pouched cassettes	Stool	20	N1723
Controls for RIDA®QUICK				
RIDA®QUICK Parasite Combi Control	Positive control	-	1.8 mL	NP1704









Giardia lamblia

Product	Description	Matrix	Tests	Art. No.
	Real-time PCR			
RIDA®GENE Parasitic Stool Panel I	Multiplex real-time PCR for the direct qualitative detection and differentiation of Giardia lamblia, Entamoeba histolytica, Cryptosporidium spp. and Dientamoeba fragilis in human stool samples	Stool	100	PG1715
RIDA®GENE Parasitic Stool Panel II	Multiplex real-time PCR for the direct qualitative detection and differentiation of <i>Giardia lamblia, Entamoeba histolytica</i> and <i>Cryptosporidium</i> spp. in human stool samples	Stool	100	PG1725
	Enzyme immunoassay			
RIDASCREEN® Giardia	Enzyme immunoassay for the detection of Giardia lamblia in human stool samples	Stool	96	C1101
	Reference controls for RIDASCREEN® ELISA			
RIDASCREEN® Giardia Reference Controls	Reference controls A (positive) and B (negative)	-	2.0 mL (A) 2.0 mL (B)	CRP1104
	Rapid tests			
RIDA®QUICK Giardia	Immunochromatographic rapid assay for the detection of <i>Giardia lamblia</i> Single pouched cassettes	Stool	20	N1103
RIDA®QUICK Cryptosporidium/Giardia Combi	Immunochromatographic rapid assay for the detection of <i>Cryptosporidium parvum</i> , <i>Cryptosporidium hominis</i> and/or <i>Giardia lamblia</i> in human stool samples Single pouched cassettes	Stool	20	N1123
RIDA®QUICK Cryptosporidium/Giardia/ Entamoeba Combi	Immunochromatographic rapid assay for the detection of <i>Cryptosporidium parvum</i> , <i>Cryptosporidium hominis</i> , <i>Giardia lamblia</i> and/or <i>Entamoeba histolytica</i> in human stool samples Single pouched cassettes	Stool	20	N1723
	Controls for RIDA®QUICK			
RIDA®QUICK Parasite Combi Control	Positive control	-	1.8 mL	NP1704











Various

Product	Description	Matrix	Tests	Art. No.
Trichomonas vaginalis	Real-time PCR			
RIDA®GENE Trichomonas vaginalis	Multiplex real-time PCR for the direct qualitative detection of <i>Trichomonas vaginalis</i> DNA in human genital swabs and urine	Genital swab/urine	100	PG4975
E. granulosus/multiloculrais	Enzyme immunoassay			
RIDASCREEN® Echinococcus IgG	Specific detection of IgG antibodies against Echinococcus granulosus and Echinococcus multilocularis	Serum	96	K7621
Leshmania infantum	Enzyme immunoassay			
RIDASCREEN® Leishmania IgG	Specific detection of IgG antibodies against Leishmania infantum	Serum	96	K7321
Taenia solium	Enzyme immunoassay			
RIDASCREEN® Taenia solium IgG	Specific detection of IgG antibodies against the larval forms of <i>Taenia solium</i> (cysticercosis)	Serum	96	K7721
Toxocara canis	Enzyme immunoassay			
RIDASCREEN® Toxocara IgG	Specific detection of IgG antibodies against Toxocara canis	Serum	96	K7421
Trichinella spiralis	Enzyme immunoassay			
NovaLisa [™] Trichinella spiralis	Specific detection of IgG antibodies against Trichinella spiralis	Serum/ plasma (citrate)	96	TRIG0480



Accessories

Product	Description	Matrix	Tests	Art. No.
Accessories	Color compensation			
RIDA®GENE Color Compensation Kit I	To generate a Color Compensation File for 3- and 4-plex RIDA®GENE real-time PCR experiments on the LightCycler®480II*	_	3	PG0001
RIDA®GENE Color Compensation Kit II	To generate a Color Compensation File for RIDA®GENE real-time PCR experiments on the LightCycler® 2.0	_	3	PG0002
RIDA®GENE Color Compensation Kit IV	To generate a Color Compensation File for RIDA®GENE real-time PCR experiments on the LightCycler® 480II**	_	3	PG0004
	DNA/RNA extraction			
RIDA® Xtract	Spin-filter based extraction kit for the simultaneous isolation and purification of DNA and RNA in various matrices (serum/plasma/cerebral fluid/cell culture supernatant/other cell free body fluids (e.g. urine)/swabs/tissue biopsies/stool)	See description	250 preparations	PGZ001





^{*} For RIDA*GENE products of the generation 1.0. ** For RIDA*GENE products of the generation 2.0.



Virology



Effective use of these diagnostic platforms enables the timely detection and control of infectious diseases caused by viral agents. We offer a broad portfolio of parameters and technologies for clinical virology, with a particular focus on viruses causing gastrointestinal infections and respiratory infections.

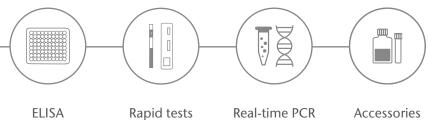
Norovirus diagnostics: fast diagnostics in outbreaks - always on the forefront

Noroviruses are a major cause of gastroenteritis world-wide with estimated 23 million cases a year in the USA. They are frequently the reason for outbreaks in communal facilities, for instance nursing homes, hospitals, prisons and cruise ships. Since norovirus outbreaks are reported more often than outbreaks caused by bacterial pathogens, they may have a considerable impact on public health.

The reliable norovirus diagnostic tests from R-Biopharm help clinical laboratories of all sizes to detect norovirus infections in a simplee and fast manner. Depending on their needs, laboratories may pick from our ELISA, rapid tests or PCR product portfolio.

Innovative diagnostic solutions for virology

Our virology catalogue offers technologies that meet the diagnostic and organizational needs of small to large laboratories. You may choose from different systems to test for a variety of viral pathogens such as Norovirus, Adenovirus, Astrovirus, Enterovirus, Parvovirus, Rotavirus, Sapovirus, Influenza, Parainfluenza, RSV, HSV, FSME, Mumps and Measles.







Adenovirus

Product	Description	Matrix	Tests	Art. No.
	Real-time RT-PCR			
RIDA®GENE Adenovirus	Multiplex real-time PCR for the direct qualitative detection of Adenovirus DNA in untreated human nasal/throat swabs and BAL	Nasal/ throat swabs/BAL	100	PG1005
RIDA®GENE Viral Stool Panel I	Multiplex real-time RT-PCR for the direct qualitative detection of Norovirus RNA, Rotavirus RNA, Adenovirus (subtype 40/41) DNA, and Astrovirus RNA in untreated stool samples	Stool	100	PG1315
RIDA®GENE Viral Stool Panel II	Multiplex real-time RT-PCR for the direct qualitative detection and differentiation of Rotavirus RNA, Astrovirus RNA, and Adenovirus 40/41 DNA in untreated stool samples	Stool	100	PG1325
RIDA®GENE Viral Stool Panel III	Multiplex real-time RT-PCR for the direct qualitative detection and differentiation of Norovirus RNA, Rotavirus RNA and Adenovirus 40/41 DNA in human stool samples	Stool	100	PG1335
	Enzyme immunoassay			
RIDASCREEN® Adenovirus	Enzyme immunoassay for the detection of Adenoviruses in human stool samples	Stool	96	C1001
	Reference controls for RIDASCREEN® ELISA			
RIDASCREEN® Adenovirus Reference Controls	Reference controls A (positive) and B (negative)	-	2.0 mL (A) 2.0 mL (B)	CRP1004
	Rapid tests			
RIDA®QUICK Rotavirus/Adenovirus Combi	Immunochromatographic rapid assay for the detection of Rotaviruses and/or Adenoviruses in human stool samples Box with strips	Stool	25	N1002
RIDA®QUICK Rotavirus/Adenovirus Combi	Immunochromatographic rapid assay for the detection of Rotaviruses and/or Adenoviruses in human stool samples Single pouched cassettes	Stool	20	N1003
RIDA®QUICK Rotavirus/Adenovirus/Norovirus Combi	Immunochromatographic rapid assay for the detection of Rotaviruses and/or Adenoviruses and/or Noroviruses genogroup I and II in human stool samples Single pouched cassettes	Stool	20	N1903
	Controls for RIDA®QUICK			
RIDA®QUICK Rotavirus/Adenovirus Combi Control	Positive control	_	1.8 mL	NP1904
	Sample diluent for RIDA®QUICK			
Rotavirus/Adenovirus Sample diluent	Tubes with 1.5 mL sample diluent	Stool	25	ZN1004
	•		-	•









Astrovirus

Product	Description	Matrix	Tests	Art. No.
	Real-time RT-PCR			
RIDA®GENE Viral Stool Panel I	Multiplex real-time RT-PCR for the direct qualitative detection of Norovirus RNA, Rotavirus RNA, Adenovirus (subtype 40/41) DNA, and Astrovirus RNA in untreated stool samples	Stool	100	PG1315
RIDA®GENE Viral Stool Panel II	Multiplex real-time RT-PCR for the direct qualitative detection and differentiation of Rotavirus RNA, Astrovirus RNA, and Adenovirus 40/41 DNA in untreated stool samples	Stool	100	PG1325
	Enzyme immunoassay			
RIDASCREEN® Astrovirus	Enzyme immunoassay for the detection of Astroviruses in human stool samples	Stool	96	C1301
	Reference control for RIDASCREEN® ELISA			
RIDASCREEN® Astrovirus Reference Controls	Reference controls A (positive) and B (negative)	_	2.0 mL (A) 2.0 mL (B)	CRP1304





Coronavirus

	Pool time DT DCD			
	Real-time RT-PCR			
RIDA®GENE SARS-CoV-2	Multiplex real-time RT-PCR for the direct qualitative detection of coronavirus (SARS-CoV-2) RNA from human throat and nasopharyngeal swabs	Nasal/ throat swab	100 200	PG6815 PG6820*
RIDA®GENE Flu & SARS-CoV-2	Multiplex real-time RT-PCR for the direct qualitative detection and differentation of Flu A/Flu B and coronavirus (SARS-COV-2) RNA from human throat and nasopharyngeal swabs	Nasal/ throat swab	200	PG6825

^{*} Only available within the EU and the EFTA countries





Enterovirus

Product	Description	Matrix	Tests	Art. No.
Enterovirus	Real-time RT-PCR			
RIDA®GENE Enterovirus	Multiplex real-time RT-PCR for the direct qualitative detection of enterovirus RNA (polioviruses, echoviruses, coxsackieviruses and human enteroviruses) in untreated human stool samples and cerebrospinal fluid	Stool/CSF	100	PG4705



Epstein-Barr-Virus

	Enzyme immunoassays			
SeraSpot® Anti-EBV-4 IgG	Specific detection of IgG antibodies against Epstein-Barr-Virus	Serum/ plasma	96	SP-013-4 G-S12
SeraSpot® Anti-EBV-3 IgG	Specific detection of IgM antibodies against Epstein-Barr-Virus	Serum/ plasma	96	SP-013-3 M-S12



Influenza

	Real-time RT-PCR			
RIDA®GENE Flu	Multiplex real-time RT-PCR for the direct qualitative detection and differentiation of Influenza A, Influenza B and H1N1v RNA in untreated human nasal/throat swabs	Nasal swab/ throat swab	100	PG0505
RIDA®GENE Flu & RSV	Multiplex real-time RT-PCR for the direct qualitative detection and differentiation of Influenza A, Influenza B and RSV RNA in human nasal/throat swabs and BAL	Nasal swab/ throat swab/BAL	100	PG0545





Hantavirus

Product	Description	Matrix	Tests	Art. No.
Enzyme immunoassays				
RIDASCREEN® Hantavirus Dobrava/Hantaan IgG Hantavirus Dobrava/Hantaan IgM	Specific detection of IgG or IgM antibodies against the Dobrava and Hantaan serotype of Hantavirus	Serum Serum	96 96	K9121 K9131
RIDASCREEN® Hantavirus Puumala IgG Hantavirus Puumala IgM	Specific detection of IgG or IgM antibodies against the Puumala serotype of Hantavirus	Serum Serum	96 96	K9221 K9231



Measles

Measles	Enzyme immunoassay			
RIDASCREEN® Masern/Measles Virus IgG	Specific detection of IgG or IgM antibodies against Measles virus. IgG-analysis in international units (mLU/mL)	Serum	96	K5421



Mumps

Mumps	Enzyme immunoassay			
RIDASCREEN® Mumps Virus IgG Mumps Virus IgM	Specific detection of IgG or IgM antibodies against Mumps virus	Serum Serum	96 96	K5521 K5531







Norovirus

Product	Description	Matrix	Tests	Art. No.
	Real-time PCR			
RIDA®GENE Hospital Stool Panel	Multiplex real-time RT-PCR for the direct qualitative detection and differentiation of Norovirus RNA (genogroup I and II), Rotavirus RNA and Clostridium difficile toxin genes A (tcdA) and B (tcdB) in human stool samples	Stool	100	PG0705
RIDA®GENE Norovirus	Multiplex real-time RT-PCR for the direct qualitative detection of Norovirus RNA of genogroups I (GI) and II (GII) in untreated stool samples	Stool	100	PG1405
RIDA®GENE Norovirus I & II	Multiplex real-time RT-PCR for the direct qualitative detection and differentiation of Norovirus RNA of genogroups I (GI) and II (GII) in untreated stool samples	Stool	100	PG1415
RIDA®GENE Norovirus GI/GII	Multiplex real-time RT-PCT for the simultaneous qualitative detection and differentiation of norovirus genogroup I (GI) and II (GII) nucleic acid	Stool	100	PG1445*
RIDA®GENE Viral Stool Panel I	Multiplex real-time RT-PCR for the direct qualitative detection of Norovirus RNA, Rotavirus RNA, Adenovirus (subtype 40/41) DNA, and Astrovirus RNA in untreated stool samples	Stool	100	PG1315
RIDA®GENE Viral Stool Panel III	Multiplex real-time RT-PCR for the direct qualitative detection and differentiation of Norovirus RNA, Rotavirus RNA and Adenovirus 40/41 DNA in human stool samples	Stool	100	PG1335
	Enzyme immunoassays			
RIDASCREEN® Norovirus	Enzyme immunoassay for the detection of Noroviruses genogroup I and II in human stool samples	Stool	96	C1401
RIDASCREEN® Norovirus	Enzyme immunoassay for the detection of Noroviruses genogroup I and II in human stool samples	Stool	96	C1401US*
	Reference controls for RIDASCREEN® ELISA			
RIDASCREEN® Norovirus Reference Controls	Reference controls A (positive) and B (negative)	-	2.0 mL (A) 2.0 mL (B)	CRP1404
	Rapid tests			
RIDA®QUICK Norovirus	Immunochromatographic lateral flow rapid assay for the detection of Noroviruses genogruop I and II in human stool sample Single pouched cassettes	Stool	25	N1402
RIDA®QUICK Rotavirus/Adenovirus/Norovirus Combi	Immunochromatographic rapid assay for the detection of Rotaviruses and/or Adenoviruses and/or Noroviruses genogruop I and II in human stool sample Single pouched cassettes	Stool	20	N1903
	Controls for RIDA®QUICK			
RIDA®QUICK Norovirus Control	Positive control	-	1.8 mL	NP1404

 $[\]boldsymbol{\ast}$ Only for sale in the US.



Parainfluenza

Product	Description	Matrix	Tests	Art. No.
Parainfluenza	Real-time RT-PCR			
RIDA®GENE Parainfluenza	Multiplex real-time RT-PCR for the direct qualitative detection and differentiation of human Parainfluenza 1, 3 and 2/4 RNA in untreated human nasal/throat swabs	Nasal swab/ throat swab	100	PG5805



Parvovirus

	Microspot arrays			
SeraSpot® Anti-Parvovirus-6 IgG	Specific detection of IgG antibodies against Parvovirus	Serum/ plasma	48	SP-012-6 G-S6
SeraSpot® Anti-Parvovirus-5 IgM	Specific detection of IgM antibodies against Parvovirus	Serum/ plasma	48	SP-012-5 M-S6







Rotavirus

Product	Description	Matrix	Tests	Art. No.
	Real-time PCR			
RIDA®GENE Hospital Stool Panel	Multiplex real-time RT-PCR for the direct qualitative detection and differentiation of Norovirus RNA (genogroup I and II), Rotavirus RNA and Clostridium difficile toxin genes A (tcdA) and B (tcdB) in human stool samples	Stool	100	PG0705
RIDA®GENE Viral Stool Panel I	Multiplex real-time RT-PCR for the direct qualitative detection of Norovirus RNA, Rotavirus RNA, Adenovirus (subtype 40/41) DNA, and Astrovirus RNA in untreated stool samples	Stool	100	PG1315
RIDA®GENE Viral Stool Panel II	Multiplex real-time RT-PCR for the direct qualitative detection and differentiation of Rotavirus RNA, Astrovirus RNA, and Adenovirus 40/41 DNA in untreated stool samples	Stool	100	PG1325
RIDA®GENE Viral Stool Panel III	Multiplex real-time RT-PCR for the direct qualitative detection and differentiation of Norovirus RNA, Rotavirus RNA and Adenovirus 40/41 DNA in human stool samples	Stool	100	PG1335
	Enzyme immunoassay			
RIDASCREEN® Rotavirus	Enzyme immunoassay for the detection of Rotaviruses in human stool samples	Stool	96	C0901
	Reference control for RIDASCREEN® ELISA			
RIDASCREEN® Rotavirus Reference Controls	Reference controls A (positive) and B (negative)	-	2.0 mL (A) 2.0 mL (B)	CRP0904
	Rapid tests			
RIDA®QUICK Rotavirus	Immunochromatographic rapid assay for the detection of Rotaviruses in human stool samples Single pouched cassettes	Stool	20	N0903
RIDA®QUICK Rotavirus/Adenovirus Combi	Immunochromatographic rapid assay for the detection of Rotaviruses and/or Adenoviruses in human stool samples Single pouched cassettes	Stool	20	N1003
RIDA®QUICK Rotavirus/Adenovirus/Norovirus Combi	Immunochromatographic rapid assay for the detection of Rotaviruses and/or Adenoviruses and/or Noroviruses genogroup I and II in human stool samples Single pouched cassettes	Stool	20	N1903
	Controls for RIDA®QUICK			
RIDA®QUICK Rotavirus/Adenovirus Combi Control	Positive control	_	1.8 mL	NP1904
	Sample diluent for RIDA®QUICK			
Rotavirus/Adenovirus Sample diluent	Tubes with 1.5 mL sample diluent	Stool	25	ZN1004
	-	-	-	-







Respiratory Syncytial Virus & Human Metapneumovirus

Product	Description	Matrix	Tests	Art. No.
RSV & hMPV	Real-time RT-PCR			
RIDA®GENE RSV & hMPV	Multiplex real-time RT-PCR for the direct qualitative detection and differentiation of RSV and hMPV RNA in untreated human nasal/throat swabs and BAL	Nasal/ throat swabs, BAL	100	PG5905
RIDA®GENE Flu & RSV	Multiplex real-time RT-PCR for the direct qualitative detection and differentiation of Influenza A, Influenza B and RSV RNA in human nasal/throat swabs and BAL	Nasal/ throat swabs, BAL	100	PG0545



Sapovirus

Sapovirus	Real-time RT-PCR			
RIDA®GENE Sapovirus	Multiplex real-time RT-PCR for the direct qualitative detection of Sapovirus RNA in human stool samples	Stool	100	PG1605



Accessories

Accessories	Color compensation			
RIDA®GENE Color Compensation Kit I	To generate a Color Compensation File for 3- and 4-plex RIDA®GENE real-time PCR experiments on the LightCycler® 480II*	-	3	PG0001
RIDA®GENE Color Compensation Kit IV	To generate a Color Compensation File for RIDA®GENE real-time PCR experiments on the LightCycler® 480II**	-	3	PG0004
Accessory	DNA/RNA extraction			
RIDA® Xtract	Spin-filter based extraction kit for the simultaneous isolation and purification of DNA and RNA in various matrices (serum/plasma/cerebral fluid/cell culture supernatant/other cell free body fluids (e.g. urine)/swabs/tissue biopsies/stool)	See description	250 preparations	PGZ001



^{*} For RIDAGENE products of the generation 1.0. ** For RIDAGENE products of the generation 2.0.



Systems



Reliable products and high quality are standard in clinical laboratories. Moreover, time and costs play an increasingly important role which can optimally be addressed with suitable automation solutions. This is where R-Biopharm comes in with its automation products and services. In cooperation with renowned partners, R-Biopharm offers equipment and software solutions from small to high sample throughput for your specific laboratory requirements.

Systems & software

R-Biopharm offers different platforms for ELISA, real-time PCR and rapid tests.

- The lateral flow reader RIDA®QUICK SCAN II is R-Biopharm's solution for secure analysis and quality-assured documentation in the field of therapeutic drug monitoring.
- For molecular diagnostics R-Biopharm offers the automated interpretation software RIDA®SEEK for

RIDA®GENE real-time PCR kits. RIDA®SEEK enables qualitative interpretation of results from PCR cycler raw data. The RIDA®CYCLER is a compact and flexible 4 channel real-time PCR instrument based on innovative magnetic induction technology (for research use only).

 All R-Biopharm ELISA tests are verified on various automation systems. Further, R-Biopharm provides convenient software solutions for measurement, evaluation and documentation of RIDASCREEN® ELISA tests and RIDA qLine®.

Services

It is R-Biopharm's ambition to accompany you as a reliable partner during planning, installation and also later in your daily routine. Therefore, R-Biopharm's application specialists are always on your disposal and work continuously on the improvement, updating and validation of all systems and instruments.





Molecular diagnostics

Product	Description	Units		Art. No.
RIDA®CYCLER	qPCR thermocycler 4 channels, incl. 1 box with reaction tubes (for research use only)	1	_	ZRCYCLER
RIDA®CYCLER-MIC-Tubes	Box with 960 reaction tubes and caps	1	_	ZRC-MIC-TUBES
RIDA®CYCLER TVS	Temperature verification system for RIDA®CYCLER	1	-	ZRCYCLER-TVS
RIDA®SEEK	Software for evaluation and documentation of RIDA®GENE real-time PCR kits	1	_	ZRIDASEEK



Immunoassay systems and evaluation software

	ELISA systems			
Dynex DS2®	Fully automated 2-microtiter plate analyzer with 2 incubators	1	_	Z62000
Dynex DSX®	Fully automated 4-microtiter plate analyzer with 2/4 incubators	1	_	Z65200 Z65400
Dynex Agility®	Fully automated 12-microtiter plate analyzer with 12 incubators	1	_	ZAGILITY
	ELISA washer, reader and evaluation software			
RIDA®ABSORBANCE 96	Microtiterplate reader	1	_	ZRA96
BioTek [®] 50™ TS 8V	Microtiterplate washer	1	_	Z50TS8V
BioTek [®] 800 [™] TS	Microtiterplate reader	1	_	Z800TS
RIDASOFT® Win.NET	Software for measurement, evaluation and documentation of RIDASCREEN® ELISA tests	1	_	Z9996



Rapid tests

RIDA®QUICK SCAN II - IVD SET	Lateral flow reader (CE-IVD) and 2D barcode scanner	1	_	ZRQS2-KD-SET
RIDA®QUICK SCAN II	Lateral flow reader (CE-IVD)	1	_	ZRQS2-KD
Honeywell Xenon 1900	2D barcode scanner for ZRQS2-KD	1	_	ZRQS2-BS
RIDA®QUICK SCAN II Control strip	Control strip for control measurement on ZRQS2-KD	1	_	ZRQS2-KS-KD





Blot systems and evaluation software

Product	Description	Units		Art. No.
RIDA qLine® autoBlot	Fully automated analyzer for 36 RIDA qLine® Allergy test strips	1	_	ZG3101
RIDA qLine® Orbital Shaker	Orbital shaker (100 - 240 V)	1	_	ZG2601
RIDA qLine® Scan	Reader for RIDA qLine® Allergy (CE-IVD)	1	_	ZG1109
RIDA qLine® QC-Kit	10 test strips for function control of the evaluation unit	1	_	ZG1108
RIDA qLine® SOFT	Software for measurement, evaluation and documentation of RIDA qLine® test strips	1	-	Z9995
RIDA qLine® autoBlot Screw cap bottle 20 mL	Screw cap bottle (20 mL) for RIDA qLine® autoBlot box of 120 pcs.	1	_	Z0011
RIDA qLine® autoBlot Screw cap for Z0011	Screw cap for Z0011 box of 120 pcs.	1	_	Z0012
RIDA qLine® autoBlot Pipet tips	Pipet tips for RIDA qLine® autoBlot, Box of 100 trays á 96 tips = 9600 pcs.	1	_	Z0013
RIDA qLine® autoBlot Maintenance Pack	Maintenance pack for RIDA qLine® autoBlot	1	_	ZATB-F-MPK

Microspot array diagnostics

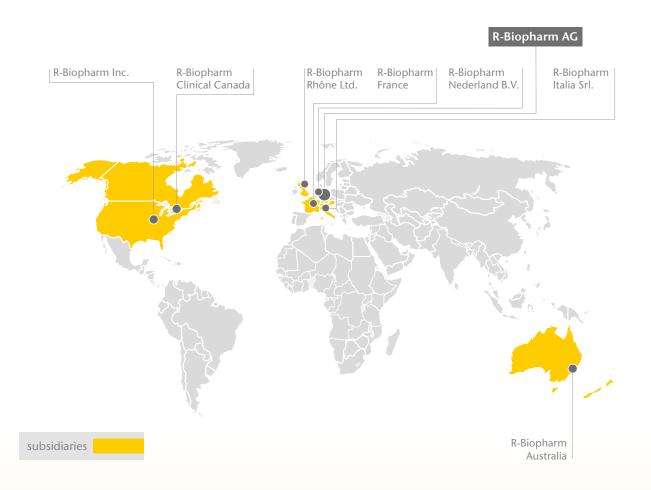
<i>SpotSight</i> [®] strip	Scanner for image acquisition and interpretation (strip)	1	_	Z-SP-STRIP-B
<i>SpotSight</i> ® plate mono	Scanner for image acquisition and interpretation (plate)	1	_	Z-SP-PLATE-C







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General terms & conditions of R-Biopharm AG

(Date of Issue: October 2010)

I. General Provisions

These General Terms & Conditions only are valid for entrepreneurs, legal entities under public law or public-law special assets (legal entities according to § 310 I German Civil Code ("Bürgerliches Gesetzbuch" - "BGB"). We deliver according to these General Terms & Conditions exclusively. They are deemed to have been acknowledged with the placing of an order or the receipt of the goods and shall also apply to all future business relationships, even if they are not explicitly agreed upon again. Deviating Terms and Conditions are not binding for us, even if we do not object to them explicitly.

II. Orders and Offer Documents

Our offers are subject to alteration. Decisive for the scope of our delivery obligation are our offer in writing respectively our written order confirmation. Deliverable are only the products which are contained in our current applicable price lists.

III. Prices and Conditions of Payment/Withdrawal in case of default

- 1. Purchase price is the price stated by us or if no price has been stated the price which is contained in our price list, which is in effect on the day of the order. The prices stated by us unless otherwise stipulated in writing are including packing and shipping costs, excluding VAT. The deduction of cash discounts shall not be granted. A small-quantity surcharge in the amount of 10 Euros can be charged for deliveries with a product value of up to 300 Euros (small quantity).
- with a product value of up to 300 Euros (small quantity).

 2. Payment obligations resulting from the delivery of goods are to be fulfilled within thirty (30) days of the invoice date by bank transfer exclusively and shall be deemed to have been effected only to the extent, to which we can dispose of them freely at a bank. For checks and bills of exchange, a processing fee of 30 Euros shall be charged; discounting and expenses shall be for the account of the Buyer.
- The Buyer shall only be entitled to set-off with a counter-claim which is undisputed or has been determined by a final verdict. A right of retention the Buyer does only have as far as it is resulting from the same contractual relationship.
- 4. Should the Buyer be in default with due payments entirely or partly, the regulations of the statutory law are applicable. Interest in the amount of 8% above the basic interest rate (as it is published by the German Federal Bank) shall be due. We are reserving the right to claim any exceeding damage for delay.
- 5. In case of withdrawal, we are entitled at the expense of the Buyer to let the goods, which have been delivered by us, mark, store separately and collect. The Buyer already yet is declaring his consent that the persons who are commissioned with the collection are entitled to access the premises, on which the goods are, and enter them by car for this purpose.
- In case of our withdrawal, we are not obliged to further deliveries any more, also regarding further future deliveries.

IV. Retention of Title

- 1. We shall retain title to the goods delivered by us, until all the claims, to which we are entitled on whatever legal grounds arising from our business relationship with the Buyer, have been fully satisfied. Upon the Buyer's request, we shall be obligated to release the securities in so far as their realizable value exceeds our claims by more than 10%. We reserve the right to select the items of collateral to be released.
- 2. The Buyer undertakes to only sell the goods, which are subject to retention, in his ordinary course of business, according to his usual terms and conditions of business and only as long as he is not in default with his payments. He is entitled to resell the goods, which are subject to retention, only on the condition that a transfer of the receivables, resulting from such a resale, to us takes place. He is not be entitled to dispose of the goods, which are subject to retention, in any another way (such as e. g. collateral assignment, pledging, leasing, lending, etc.). The Buyer is obligated to immediately notify us of any seizure or other interference by a third party, together with handing over of the documents which are necessary for an intervention.

V. Delivery

- Our delivery times are generally only approximate and not binding.
- 2. Uncontrollable incidents, for which we are not responsible, e. g. natural phenomena, war, orders of the authorities, embargo, unexpected delays in the delivery of essential components and other materials ("Force Majeure"), shall prolong the delivery time reasonably. This also applies, if these incidents occur during a delay in delivery or at a sub-supplier. However, the delivery time shall be prolonged by a maximum period of two (2) months. Should we also not be able to deliver after this time, then the Buyer as well as we themselves are entitled to withdraw from the contract. Any claims of damages of the Buyer for this reason are excluded. Should we withdraw from the contract, we shall immediately refund the Buyer any and all payments possibly rendered for not yet delivered goods.
- rendered for not yet delivered goods.

 3. Should the Buyer despite reminder not fulfill his payment obligations resulting from existing contracts, we shall only supply on advance payment from then on.

 4. We are entitled to partial deliveries to a reasonable extent; here each partial delivery
- 4. We are entitled to partial deliveries to a reasonable extent; here each partial delivery can be invoiced separately. In case of order on call, the call-off has to take place at least two (2) calendar weeks prior to the desired delivery date.

VI. Shipment and Passing of Risk

 Dispatch ex works or distribution warehouse shall be carried out at the expense of the Buyer. Shipping route and mode of dispatch shall be determined by us. We shall only be obligated to obtain a transport insurance, if explicitly instructed to do so by the Buyer in writing; the Buyer shall bear the costs for this insurance. 2. The passing of risk to the Buyer takes place as soon as the goods have been handed over to the haulage contractor respectively leave our factory or distribution warehouse for the purpose of dispatch; this also is valid, if we - by way of exception - organize additional services, e. g. carriage prepaid shipping, delivery to the premises of the Buyer, or similar. In particular we are not liable for alteration or deterioration of the goods during transport or resulting from improper storage. Should we have notified the Buyer that the goods are ready for dispatch or collection, the risk passes on to the Buyer, if he does not have the goods delivered or collect them, despite of us having set him a reasonable period of time for doing so; regarding that, the passing of risk takes place at the beginning of the day which follows the day, on which the deadline has expired.

VII. Warranty/Liability

- It is precondition for the execution of claims based on a defect, that the Buyer has
 performed his responsibilities to examine and complain according to § 377 of the
 German Commercial Code ("Handelsgesetzbuch" "HGB") correctly and completely.
- We are liable for faultlessness of the goods corresponding to the state of the art.
 Features of samples and specimens as well as any statements regarding the condition
 of the goods, shall only be considered as an agreement on quality, if they explicitly
 have been agreed upon as determining the condition of the goods. Otherwise they
 are non-binding and do not free the Buyer from an own inspection of the goods
 concerning their suitability for his purposes. We neither grant guarantees with the
 content of a liability without fault nor any other kind of guarantees for quality and
 durability in the legal sense.
 We are not liable for damages as far as they have been caused by improper storage of
- We are not liable for damages as far as they have been caused by improper storage of our products and/or their application contrary to the prescriptions - e. g. application after expiry of their shelf life or contrary to the direction for use - or as far as they have been caused by the Buyer in any other way.
 The exceeding of use-by dates after the delivery does not entitle the Buyer to claims
- The exceeding of use-by dates after the delivery does not entitle the Buyer to claims
 of any kind, but is deemed to be the usual condition. This is not the case, if the period
 between the date of delivery and the use-by date is less than four (4) calendar weeks.
 We shall only be liable for damages, as far as we attributable have caused them by
- 5. We shall only be liable for damages, as far as we attributable have caused them by intent or gross negligence (disregard for the due care and attention to a very coarse extent); except in case of violation of essential contractual obligations, (obligations, whose fulfillment enables the proper execution of the contract at all and on whose observance the contractual partner may rely regularly). In this last-mentioned case we are liable for each negligence with the restriction that in case of violation of essential contractual duties by slight negligence our liability is limited to the damage which typically is predictable.
- 6. Should we not have violated any essential contractual obligations in the sense mentioned before, we are not liable in cases of slight negligence. Unaffected by any limitation of liability contained in these General Terms & Conditions stay: Liability for intent, malice, initial inability, gross negligence, liability resulting from a guarantee (which, however, we generally not grant), bodily harms and other cases of legally compelling liability in these cases the statutory law is valid (under exclusion of the Terms and Conditions of our contractual partner).
- The regulations of this clause Warranty/Liability are valid for our contractual liability as
 well as liability resulting from tort (unaffected thereby stays the action for possession
 in case of tort, after statutory limitation has taken place, § 852 German Civil Code
 ("Bürgerliches Gesetzbuch" BGB")).
- 8. As far as our lability is excluded or limited, this shall also apply to the personal liability of our representatives, employees and vicarious agents and our liability for them.
- 9. As far as there is a defect of the goods, for which we are liable, the Buyer has to grant us the opportunity to execute subsequent performance within a term of generally two (2) calendar weeks, before the assertion of his further rights. In case that subsequent performance fails twice, in case of our refusal, or if subsequent performance is impossible, is delayed unreasonably or unreasonable for the Buyer due to other reasons, the Buyer may according to his choice execute his further legal rights, namely rescission or reduction of the purchase price and (regarding defects for which we are liable) claim of possibly occurred damages or compensation for possible futile expenditure, by which our liability is limited according to the preceding regulations.

VIII. Burden of Proof/Export/Effectiveness

- With none of the stipulations of these General Terms & Conditions an alteration of the burden of proof is intended.
- We are not liable for the correctness of information regarding foreign-trade which we provide to our best conscience; it is the Buyer's responsibility to assess the compliance with foreign-trade regulations with regard to our products himself.
- Should any of the regulations of our General Terms & Conditions be ineffective and/ or incomplete, the validity of the other regulations shall remain unaffected thereby.

IX. Applicable Law and Place of Jurisdiction

- The contractual relationship shall be governed by the laws of the Federal Republic of Germany, which shall be applicable supplementary. The UN-convention on contracts regarding the International Sale of Goods (CISG) shall not apply.
- Exclusive Place of Jurisdiction is Darmstadt (Germany). However, we are entitled to file a lawsuit against the Buyer also at any other court, which does have jurisdiction regarding him according to the general regulations.

