

BactoReal[®] assays for detection of bacteria

Product Name	Channel	Pathogen	Order Number
BactoReal[®] Bartonella spp. Detection of the <i>gltA</i> gene of <i>B. clarridgeiae</i> , <i>B. elizabethae</i> , <i>B. grahamii</i> , <i>B. henselae</i> , <i>B. koehlerae</i> , <i>B. quintana</i> , <i>B. volans</i> and <i>B. washoensis</i>	FAM		RTGM905
BactoReal[®] Bordetella bronchiseptica Detection of the <i>bfrA</i> gene of <i>B. bronchiseptica</i>	FAM		RTGM1450
BactoReal[®] Bordetella parapertussis Detection of the insertion sequence IS1001 of <i>B. parapertussis</i> , and of some strains of <i>B. bronchiseptica</i> and <i>B. holmesii</i>	FAM		RTGM1400
BactoReal[®] Bordetella pertussis Detection of the insertion sequence IS481 of <i>B. pertussis</i> , <i>B. holmesii</i> and some strains of <i>B. bronchiseptica</i>	FAM		RTGM1500
BactoReal[®] Borrelia burgdorferi sensu lato Detection of the <i>ospA</i> gene of <i>Borrelia</i> species belonging to the <i>Borrelia burgdorferi sensu lato</i> complex (<i>B. spielmanii</i> is not well detected)	FAM		RTGM500
BactoReal[®] Brucella spp. Detection of the IS711 region of <i>B. abortus</i> , <i>B. ovis</i> , <i>B. melitensis</i> , <i>B. suis</i> and <i>B. canis</i>	FAM		RTGM1150
BactoReal[®] Chlamydomphila pneumoniae Detection of the <i>ompA</i> gene of <i>C. pneumoniae</i>	FAM		RTGM1200
BactoReal[®] Chlamydomphila psittaci/abortus Detection of the <i>omp1</i> gene of <i>C. abortus</i> and <i>C. psittaci</i>	FAM		RTGM1250
BactoReal[®] Clostridium difficile Toxins <i>Coming Soon</i> Detection and differentiation of toxin A (<i>tcdA</i>), toxin B (<i>tcdB</i>) and binary toxin gene of <i>C. difficile</i>	FAM & VIC / HEX		RTGM1270
BactoReal[®] E. coli Toxin Typing Detection of the toxin genes <i>stx1</i> , <i>stx2</i> (verotoxin), <i>eae</i> (intimin) and <i>ehxA</i> (enterohemolysin) of <i>E. coli</i>	FAM & VIC / HEX		RTGM1280
BactoReal[®] Haemophilus influenzae Detection of the <i>ompP6</i> gene of <i>H. influenzae</i>	FAM		RTGM300
BactoReal[®] Klebsiella Detection of the hemolysin gene of <i>K. pneumoniae</i> , <i>K. variicola</i> , <i>K. oxytoca</i> , <i>K. aerogenes</i>	FAM		RTGM310
BactoReal[®] Legionella pneumophila Detection of the 23S-5S rDNA intergenic spacer region of <i>L. pneumophila</i>	FAM		RTGM1600
BactoReal[®] Leptospira spp. (16S rDNA) Detection of the 16S rRNA gene of pathogenic and intermediately pathogenic <i>Leptospira</i> species	VIC / HEX		RTGM1700
BactoReal[®] Leptospira spp. (LipL32) Detection of the LipL32 gene of pathogenic <i>Leptospira</i> species	FAM		RTGM1800
BactoReal[®] Leptospira spp. Multiplex (16S rDNA + LipL32) Detection and differentiation of LipL32 gene of pathogenic and 16S rRNA gene of pathogenic and intermediately pathogenic <i>Leptospira</i> species	FAM & VIC / HEX		RTGM1900
BactoReal[®] Listeria monocytogenes Detection of the <i>hlyA</i> gene of <i>L. monocytogenes</i>	FAM		RTM200
BactoReal[®] Mycoplasma pneumoniae Detection of the 16S rRNA gene of <i>M. pneumoniae</i>	FAM		RTGM1300
BactoReal[®] Neisseria gonorrhoeae Detection of the 16S rRNA gene of <i>N. gonorrhoeae</i>	FAM		RTGM800
BactoReal[®] Neisseria meningitidis Detection of the <i>ctrA</i> gene of <i>N. meningitidis</i>	FAM		RTGM700
BactoReal[®] Pseudomonas aeruginosa Detection of the 16S rRNA gene of <i>P. aeruginosa</i>	FAM		RTGM906

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BactoReal® <i>Salmonella enterica</i> Detection of the <i>invA</i> gene of <i>S. enterica</i>	FAM	RTGM907
BactoReal® <i>Streptococcus agalactiae</i> Detection of the <i>cbf</i> gene of <i>S. agalactiae</i>	FAM	RTGM901
BactoReal® <i>Streptococcus pneumoniae</i> Detection of the <i>lytA</i> gene of <i>S. pneumoniae</i>	FAM	RTGM601
BactoReal® <i>Tropheryma whipplei</i> Detection of the <i>groEL</i> gene of <i>T. whipplei</i>	FAM	RTGM902

Other assays for detection of bacteria

Product Name	Channel Pathogen & IPC	Order Number
<i>H. pylori</i> ClariRes Assay (CE-IVD) Detection of the 23S rRNA gene of <i>H. pylori</i> and determination of its clarithromycin resistance. IVD certified. PCR-platform: Only LightCycler® 1.2/1.5/2.0 on basis of melting curve analysis Recommended amplification mix (not included): LC™-FastStart DNA Master SYBR® Green I	Cy5	RTGM100

ViroReal® assays for detection of viruses

Product Name	Channel Pathogen	Order Number
ViroReal® Adenovirus Detection of the hexon gene of human adenovirus species A-G	FAM	RTGM33RV
ViroReal® CMV Detection of the UL44 gene of human cytomegalovirus	FAM	RTGM10V
ViroReal® Enterovirus Detection of RNA of the 5' UTR of enterovirus	FAM	RTGM20RV
ViroReal® HDV Detection of RNA of the 5' UTR of human hepatitis D virus	FAM	RTGM21RV
ViroReal® HHV-6A Detection of the U65/U66 gene of human herpes virus type 6 subtype A	FAM	RTGM14V
ViroReal® HHV-6B Detection of the U65/U66 gene of human herpes virus type 6 subtype B	FAM	RTGM15V
ViroReal® HHV-6A, B Detection of the U65/U66 gene of human herpes virus type 6 subtypes A and B	FAM	RTGM16V
ViroReal® HHV-7 Detection of the glycoprotein H gene of human herpes virus type 7	FAM	RTGM17V
ViroReal® HHV-8 Detection of the ORF26 of human herpes virus type 8	FAM	RTGM18V
ViroReal® Human Coronavirus alpha Detection of RNA of the N gene of human coronavirus NL63 and 229E	FAM & VIC / HEX	RTGM40RV
ViroReal® Human Coronavirus beta Detection of RNA of the N gene of human coronavirus HKU1, OC43, MERS	FAM & VIC / HEX	RTGM44RV
ViroReal® Influenza A Detection of RNA of the matrix protein gene of influenza A virus	FAM	RTGM15RV
ViroReal® Influenza B Detection of RNA of the hemagglutinin gene of influenza B virus	FAM	RTGM16RV
ViroReal® Metapneumovirus Detection of RNA of the nucleocapsid protein gene of hMPV A and hMPV B	FAM	RTGM35RV

Product Name	Channel Pathogen	Order Number
ViroReal® Parainfluenzavirus Detection of RNA of the HN gene of HPIV-1, HPIV-2, HPIV-3, HPIV-4	FAM & VIC / HEX	RTGM34RV
ViroReal® Parechovirus Detection of RNA of the polyprotein gene of human parechovirus strains 1-6	FAM	RTGM36RV
ViroReal® Parvovirus B19 Detection of the VP1 gene of parvovirus B19 genotypes 1, 2 and 3	FAM	RTGM19V
ViroReal® Rhinovirus (A, B, C) Detection of RNA of the 5' UTR of the human rhinovirus A, B and C	FAM	RTGM38RV
ViroReal® Rotavirus Detection of RNA of the NSP4 gene of rotavirus strains genotype A, most strains of genotype B, C and some strains of the other genotypes D-G	FAM	RTGM39RV
ViroReal® RSV (A & B) Detection of RNA of the nucleocapsid protein gene of human respiratory syncytial virus subtypes A & B	FAM	RTGM37RV
ViroReal® VZV Detection of the ORF29 of varicella zoster virus	FAM	RTGM20V

ParoReal assays for detection of parasites

Product Name	Channel Pathogen	Order Number
ParoReal Acanthamoeba Detection of the 18S rRNA gene of <i>Acanthamoeba</i> species	FAM	RTGM001P

General information for BactoReal®, ParoReal and ViroReal® assays

Content:

- Assay (primer + probe) for detection of pathogen (50 reactions)
- Positive Control
- Attention: Amplification mix is not included
Recommended amplification mix, depending on PCR-platform and template
 - TaqMan® Fast Advanced Master Mix (Thermo Fisher Scientific) for DNA target
 - TaqMan® Fast Virus 1-step Master Mix (Thermo Fisher Scientific) for RNA target
 - QuantiTect® Probe RT-PCR Kit (Qiagen) or LC™-FastStart DNA Master Kit Hybridisation Probes for LightCycler® 1.2/1.5/2.0

PCR-platforms:

- Applied Biosystems® 7500 instrument (Thermo Fisher Scientific)
- Mx3005P® QPCR System (Agilent)
- LightCycler® 480 (Roche)
- LightCycler® 1.2/1.5/2.0 (Roche) (most assays)



BactoReal®, ParoReal and ViroReal® assays are optimized to run under the same thermal cycling conditions
Assays can be combined with assays for detection of an internal positive control in the same reaction
Assays are also available as kits (containing the amplification mix and an internal positive control assay)

Assays for detection of internal positive control

For use with ingenetix assays or customer assays

Product Name	Channel	Order Number
ControlReal 1 Detection of internal control DNA target (in assay mix). Recommended for Applied Biosystems® 7500, Mx3005P®	VIC / HEX	RTGMCR-1
ControlReal 2 Detection of internal control DNA target (in assay mix). Recommended for LightCycler® 1.2/1.5/2.0	NED (F2, 610 nm)	RTGMCR-2
ControlReal 3 Detection of internal control DNA target (in assay mix). Recommended for Applied Biosystems® 7500, LightCycler® 480, Mx3005P®	Cy5	RTGMCR-3
Internal Positive Control Assay 1 Detection of internal control DNA target (in extra tube). Recommended for Applied Biosystems® 7500, Mx3005P®	VIC / HEX	RTGMIPC-1
Internal Positive Control Assay 2 Detection of internal control DNA target (in extra tube). Recommended for LightCycler® 1.2/1.5/2.0	NED (F2, 610 nm)	RTGMIPC-2
Internal Positive Control Assay 3 Detection of internal control DNA target (in extra tube). Recommended for Applied Biosystems® 7500, LightCycler® 480, Mx3005P®	Cy5	RTGMIPC-3
Internal Positive RNA Control Assay 1 Detection of internal control RNA target (in extra tube). Recommended for Applied Biosystems® 7500, Mx3005P®	VIC / HEX	RTGMIPCR1
Internal Positive RNA Control Assay 2 Detection of internal control RNA target (in extra tube). Recommended for LightCycler® 1.2/1.5/2.0	NED (F2, 610 nm)	RTGMIPCR2
Internal Positive RNA Control Assay 3 Detection of internal control RNA target (in extra tube). Recommended for Applied Biosystems® 7500, LightCycler® 480, Mx3005P®	Cy5	RTGMIPCR3

MycoReal assays for detection of fungi

Product Name	Channel Pathogen & IPC	Order Number
MycoReal Aspergillus Detection of the ITS2-region of <i>A. fumigatus</i> , <i>A. flavus</i> , <i>A. nidulans</i> , <i>A. niger</i> and <i>A. terreus</i> PCR-platform: LightCycler® 2.0	<i>Aspergillus</i> : 640 nm, 705 nm IPC: 610 nm	RTPM100
MycoReal Candida Detection of the ITS2-region of <i>C. albicans</i> , <i>C. dubliniensis</i> , <i>C. glabrata</i> , <i>C. krusei</i> , <i>C. lusitanae</i> , <i>C. parapsilosis</i> , and <i>C. tropicalis</i> PCR-platform: LightCycler® 2.0	<i>Candida</i> : 640 nm, 670 nm, 705 nm IPC: 610 nm	RTPM200
MycoReal Fungi Detection of the ITS2-region of fungi (panfungal) PCR-platform: LightCycler® 2.0	Fungi: 640 nm IPC: 610 nm	RTPM300
MycoReal Pneumocystis Detection of the mt LSU gene of <i>Pneumocystis jirovecii</i> PCR-platform: LightCycler® 1.2/1.5/2.0/480, Applied Biosystems® 7500, Mx3005P®	<i>Pneumocystis</i> : FAM IPC: 610 nm IPC: VIC / HEX IPC: Cy5	RTPM400 or RTPM401 or RTPM403

General information for MycoReal assays

Content:

- Assay (primer + probe) for detection of pathogen (50 reactions)
- Assay for detection of internal positive control
- Positive Control(s)
- Attention: Amplification mix is not included

Recommended amplification mix, depending on PCR-platform

- LC™-FastStart DNA Master Kit Hybridisation Probes for LightCycler® 1.2/1.5/2.0
- TaqMan® Gene Expression Master Mix for Applied Biosystems® 7500, Mx3005P®, LightCycler® 480

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