

GENESIG



genesig qPCR test kits by Primerdesign
Human | Veterinary | Food, water and agriculture

PRIMER
DESIGN

Convenient kit formats



Multiplex qPCR

Target primer and probe mix

Positive control

Separate Endogenous control

Internal extraction control (IEC) primer and probe mix

Target/IEC primer and probe mix

Target/endogenous control primer and probe mix

Lyophilised master mix

Reaction tubes

Resuspension buffers

Kit size (tests)

	Easy Kit	Advanced Kit	Standard Kit	genesigPLEX Kit Human	genesigPLEX Kit Veterinary	genesigMYPLEX Kit
genesig q16		All other instruments: Thermo, Bio-Rad, Roche, QIAGEN etc...				
				Y	Y	Y
				Y	Y	Y
	Y	Y	Y	Y	Y	Y
			Y			
			Y			
			Y			
			Y			
	Y				Y	
				Y		Y
	Y			Y	Y	Y
	Y					
	Y					
	Y					
	Y					
	50	100-150	100-150	100	100	100

genesig® qPCR detection kits

Primerdesign is extremely proud to present our “genesig” range of qPCR detection kits. The range includes kits for human pathogen detection, veterinary diseases, food, water and agricultural analysis, GMO detection, species identification, biothreat detection, genotyping and many more.

Designed and manufactured in Great Britain

All of our kits are carefully designed, developed, optimised and manufactured by our world class scientists in our laboratories in Southampton, UK.

Wide range

The genesig range has more than 600 qPCR detection kits at present but the list is always growing.

The range is segmented in to five areas:

- Human pathogen testing kits
- Veterinary pathogen testing kits
- Food, water and agricultural testing kits
- Biothreat detection kits
- Genotyping testing kits

Global reputation

Primerdesign's genesig range of kits is currently used by customers in over 100 countries worldwide.

Open platform

The genesig range of kits is open platform. They are designed to work perfectly with any real time PCR machine available on the market.

genesig qPCR detection kit formats

Within the genesig qPCR detection kit range are five convenient kit formats which are optimised for specific user needs and technical experience. Our genesig Easy Kits are suitable for users of all experience levels and are designed specifically for the genesig q16. The Advanced and Standard Kit can be used on all other qPCR cyclers. While genesigPLEX and genesigMYPLEX Kits are specialised multiplex kits. All kits include a positive control and resuspension buffers. The table on page 2 outlines the full contents of each kit format.

Complete control of your findings

- Copy number positive control confirms experimental performance and allows for copy number determination of target
- Internal extraction control gives detailed insight in to the success/failure of the nucleic acid extraction process
- Endogenous control reveals quality of biological sample.

Supplied lyophilised

- No cold chain shipping
- Fast delivery to anywhere in the World

On demand and multiplex analysis

genesig kits on demand

Primerdesign has a reputation as the best place in the World to order custom designed real time PCR primers, probes and kits. We develop thousands of kits for gene detection in all kinds of different species for customers all over the World every year. As well as these research targets we have requests every week for new genesig kits for new targets. As a result, a significant amount of the genesig kits in this catalogue were developed 'on demand'.

So if your target of interest is not in this catalogue just let us know. We can develop a new genesig kit for you in just 4 to 6 weeks.

Every assay is expert designed. The process involves an in depth literature review followed by extensive bioinformatics analysis to ensure the correct theoretical detection profile. Once synthesised the kits are optimised via a strict biochemical validation on synthetic oligos to ensure the ideal PCR performance. Thereafter we are happy to guarantee the highest levels of kit specificity and priming efficiency with every kit when you use them in your laboratory.

Email enquiry@primerdesign.co.uk for more information.

genesig kits are ideal for multi target analysis

Every genesig kit operates with the same standardised protocol and cycling conditions. This makes them ideal as the protocol only needs to be learnt once but can be used to test for hundreds of different targets.

What's more, because every kit uses the same cycling protocol, multiple kits can be used on the same plate on the same PCR run. For example, a patient could be screened for up to 96 different pathogens at the same time.

NEW! genesigPLEX qPCR Kits

genesigPLEX qPCR Kits are unique multiplex qPCR assays that allow simultaneous real-time PCR detection of different preselected viruses. Individual primers and probes have been designed permitting multiple virus detection in a single reaction through separate fluorescent channels. The genesigPLEX qPCR Kits for human infections also all include a human endogenous control to confirm extraction of a valid biological template.

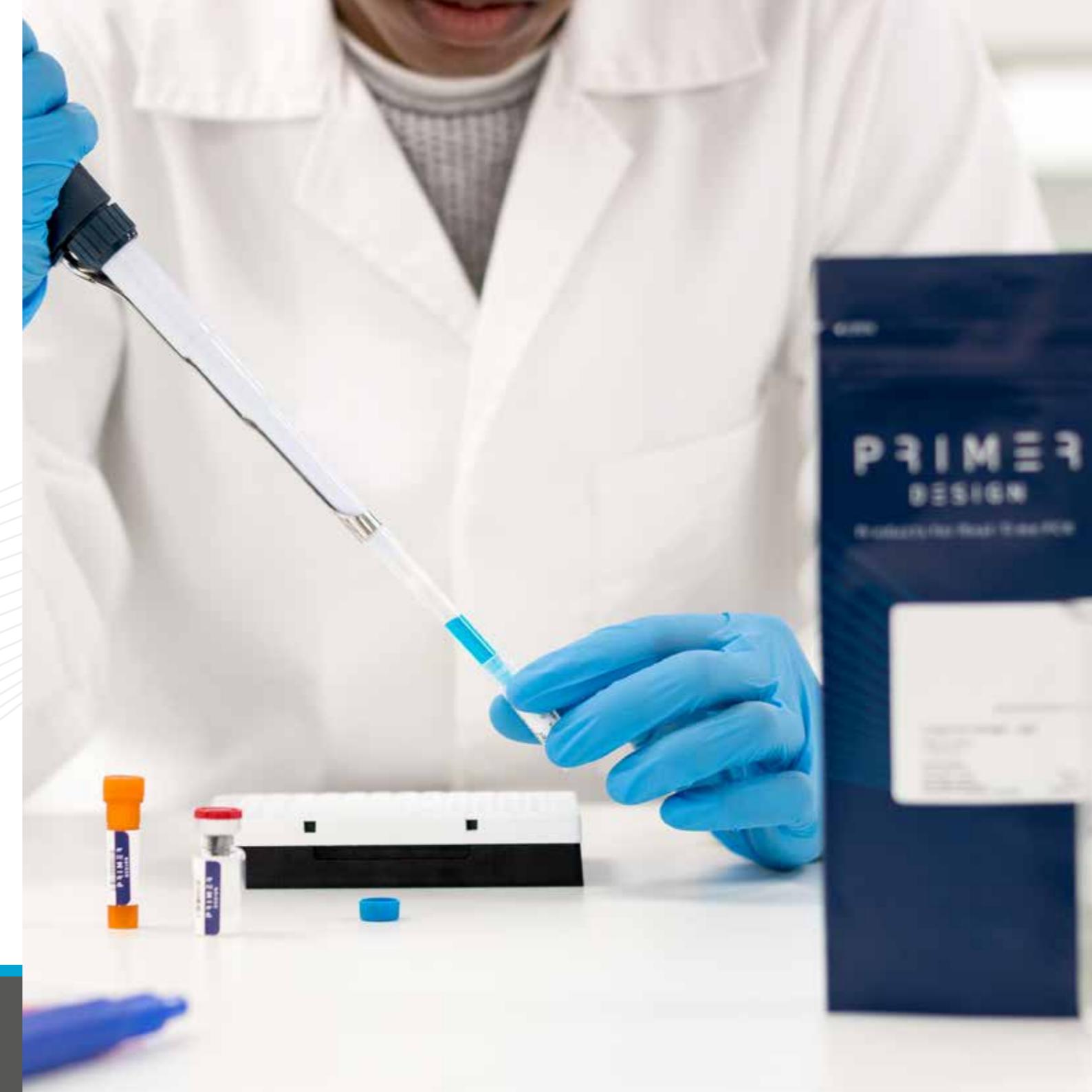
The genesigPLEX qPCR Kits are available as multiplex panels for a variety of human infections including: of the immunosuppressed, STD, respiratory, hepatitis, and blood-borne; as well as for the veterinary infection equine strangles.

The kits include oasigPLEX Lyophilised qPCR Master Mix, our brand new, unique qPCR master mix optimised for multiplex applications. Within this master mix is ampliSOLVE, which is an exceptional solution that will remove amplicon contamination and dramatically improve multiplex qPCR data.

NEW! genesigMYPLEX qPCR Kits

genesigMYPLEX qPCR Kit STD is a unique pick and mix multiplex qPCR assay which allows simultaneous detection of up to 3 different STD viruses. The innovative genesigMYPLEX format allows you to choose any of the 10 most prevalent STD viruses to be combined in a customised 2 or 3-way qPCR multiplex assay. The genesigMYPLEX format is a brand-new approach to multiplex and any selection can be delivered within 4 weeks.

The kit includes oasigPLEX Lyophilised qPCR Master Mix, our brand new, unique qPCR master mix optimised for multiplex applications. Within this master mix is ampliSOLVE, which is an exceptional solution that will remove amplicon contamination and dramatically improve multiplex qPCR data..





qPCR test kits Human pathogen

The human pathogen detection kit range forms the largest part of the genesig portfolio and is ever growing. This segment includes hundreds of kits for pathogenic bacteria, viruses, protozoa, parasites etc.

Respiratory infections

Sexually transmitted infections

Herpes viral infections

Hepatitis infections

Human papillomavirus

Meningitis

Gastrointestinal infections

Vector-borne diseases

Multiplex kits

Custom multiplex kits

Periodontal infections

Human parasites

Others

Respiratory infections

- Adenovirus type B
- Adenovirus type C
- Adenovirus type D
- Adenovirus type F&G
- Ajellomyces capsulatus
- BK virus
- Bordetella pertussis
- Chlamydophila pneumoniae
- Chlamydophila psittaci
- Coronavirus 2012 genomes
- Cryptococcus neoformans
- Enterobacter cloacae complex
- Geosmithia argillacea
- Group 1 Coronavirus genomes
- Group 2 Coronavirus genomes
- H1N1 influenza
- Haemophilus influenzae
- Human Bocavirus genomes
- Human Influenza A Virus Subtype H1
- Human Influenza A Virus Subtype H3
- Human Influenza type A M2
- Human Influenza type B
- Human Metapneumovirus
- Human Parainfluenza virus type 1
- Human Parainfluenza virus type 2
- Human Parainfluenza virus type 3
- Human Parainfluenza virus type 4A
- Human Parainfluenza virus type 4A and 4B
- Human Parainfluenza virus type 4B
- Human Polyomavirus 6
- Human Polyomavirus 7
- Human Polyomavirus 9
- Human Rhinovirus all subtypes (generic)
- Human Rhinovirus Subtype 14
- Human Rhinovirus Subtype 16
- Human Rhinovirus Subtype 1B
- Human Rhinovirus Subtype 29
- Human Rhinovirus Subtype 9
- Influenza type A M1
- KI polyomavirus

Respiratory infections continued

- Klebsiella pneumoniae
- Legionella pneumophila
- Legionella species
- Leptospirosis
- Merkel cell polyomavirus
- Methicillin-resistant Staphylococcus aureus
- MRSA with Staphylococcal cassette chromosome mec
- MRSA with Staphylococcal cassette chromosome mec type IVa
- Moraxella catarrhalis
- Mycobacterium avium
- Mycobacterium avium subspecies paratuberculosis
- Mycobacterium Tuberculosis
- Mycobacterium tuberculosis complex
- Mycobacterium tuberculosis complex, targets MPB64 and IS6110
- Mycoplasma pneumoniae
- Respiratory Syncytial Virus
- Respiratory Syncytial Virus A
- Respiratory Syncytial Virus B
- SARS coronavirus
- Simkania negevensis
- Tamiflu resistance in swine flu H1N1
- Trichodysplasia spinulosa associated polyomavirus
- WU polyomavirus

Multiplex Kit

- NEW genesigPLEX FluA/FluB/RSV

Sexually transmitted infections

- Candida albicans
- Chlamydia trachomatis
- Chlamydiaceae (all species)
- Gardnerella vaginalis
- Haemophilus ducreyi
- Human Astrovirus 1-8
- Hepatitis A Virus
- Hepatitis B Virus
- Human Immunodeficiency Virus type 1
- Human Immunodeficiency Virus type 2
- Human Papillomavirus 11
- Human Papillomavirus 16
- Human Papillomavirus 18
- Human Papillomavirus 31
- Human Papillomavirus 33
- Human Papillomavirus 45
- Human Papillomavirus 52 and 52b
- Human Papillomavirus 58
- Human Papillomavirus 6
- Mycoplasma genitalium
- Neisseria gonorrhoeae
- Treponema pallidum
- Trichomonas vaginalis
- Ureaplasma urealyticum

Multiplex Kit

- NEW genesigPLEX CT/NG/UU
- NEW genesigPLEX HBV/HCV/HIV1/HIV2
- NEW genesigMYPLEX STD

Herpes viral infections

- Cytomegalovirus (HHV5)
- Epstein Barr Virus (HHV4)
- Human Herpesvirus 3 (VZV)
- Human Herpesvirus 6
- Human Herpesvirus 6 variant A
- Human Herpesvirus 6 variant B
- Human Herpesvirus 7
- Human Herpesvirus 8
- Herpes simplex type 1 (HHV1)
- Herpes simplex type 1 and 2 (HHV1&2)
- Herpes simplex type 2 (HHV2)

Multiplex Kit

- NEW genesigPLEX CMV/EBV/BKV

Hepatitis infections

- Hepatitis A Virus
- Hepatitis B Virus
- Hepatitis C Virus
- Hepatitis Delta Virus
- Hepatitis E Virus

Multiplex Kit

- NEW genesigPLEX HAV/HEV
- NEW genesigPLEX HBV/HCV/HIV1/HIV2

Human papillomavirus

- Human Papillomavirus 6
- Human Papillomavirus 11
- Human Papillomavirus 16
- Human Papillomavirus 18
- Human Papillomavirus 31
- Human Papillomavirus 33
- Human Papillomavirus 45
- Human Papillomavirus 52 and 52b
- Human Papillomavirus 58

Multiplex Kit

- High Risk HPV Multiplex Kit

Meningitis

- Cytomegalovirus (HHV5)
- Enterovirus
- Epstein Barr Virus (HHV4)
- Haemophilus influenzae
- Herpes simplex type 1 (HHV1)
- Herpes simplex type 1 and 2 (HHV1&2)
- Herpes simplex type 2 (HHV2)
- Leptospirosis
- Lyme disease
- Neisseria meningitidis
- Streptococcus pneumoniae

Gastrointestinal infections

- Aeromonas hydrophila
- Alpha toxin producing Clostridium perfringens
- Ancylostoma duodenale
- Bacillus cereus E33
- Bacteroides species
- Balamuthia mandrillaris
- Bifidobacterium bifidum
- Blastocystis genus (all species)
- Campylobacter Coli
- Campylobacter Jejuni
- Candida albicans
- Clostridium botulinum toxin A
- Clostridium botulinum toxin B
- Clostridium botulinum toxin E
- Clostridium botulinum toxin F
- Cryptococcus gattii
- Cryptosporidium
- Cyclospora cayetanensis
- Cystoisospora belli
- Entamoeba histolytica
- Entamoeba species
- Enterobacter cloacae complex
- Enterococcus casseliflavus
- Enterococcus faecalis
- Enterococcus faecium
- Enterohemorrhagic Escherichia coli
- Enteroinvasive Escherichia coli
- Enteropathogenic Escherichia coli
- Enterotoxigenic Escherichia coli
- Escherichia coli (all strains)
- Escherichia coli O157:H7
- Escherichia coli O104:H4
- Giardia intestinalis
- Helicobacter pylori
- Human Bocavirus genomes
- Human Rotavirus A
- Human Rotavirus B
- Human Rotavirus C

Gastrointestinal infections

continued

- JC virus
- Listeria monocytogenes
- Necator americanus
- Norovirus genogroups I and II
- Parechovirus
- Pathogenic Salmonella species
- Salmonella enterica
- Schistosoma mansoni
- shiga toxin (stx1) producing Escherichia coli
- shiga toxin (stx2A) producing Escherichia coli
- shiga toxin (stx2c) producing Escherichia coli
- shiga toxin (stx2f) producing Escherichia coli
- Shigella (all species)
- tellurite resistant Escherichia coli
- Toxigenic subspecies of Vibrio cholerae
- Vibrio cholerae subspecies
- Vibrio species
- Yersinia enterocolitica

Vector-borne diseases

Vector-borne diseases

continued

- Crimean-Congo Haemorrhagic Fever Virus
- Dengue virus
- Dengue virus type 3
- Ehrlichia species
- Francisella tularensis
- Japanese Encephalitis Virus
- Leishmania infantum and Leishmania donovani
- Leishmania major
- Leishmania species
- Leishmania tropica
- Lyme disease
- Plasmodium falciparum
- Plasmodium knowlesi
- Plasmodium malariae
- Plasmodium ovale
- Plasmodium species
- Plasmodium vivax
- Rickettsia (all species)
- Sandfly Fever Sicilian Virus
- St. Louis encephalitis virus
- Tick-borne Encephalitis Virus
- Trypanosoma cruzi
- Wesselsbron Virus
- West Nile Virus
- Western equine encephalomyelitis virus
- Yellow Fever Virus
- Zika Virus

Multiplex Kit

- Dengue, Zika and Chikungunya Virus Multiplex kit
- Dengue Subtyping Multiplex Kit

Multiplex kits

- Dengue, Zika and Chikungunya Virus Multiplex kit
- Dengue Subtyping Multiplex Kit
- High Risk HPV Multiplex Kit
- NEW genesigPLEX CT/NG/UU
- NEW genesigPLEX CMV/EBV/BKV
- NEW genesigPLEX FluA/FluB/RSV
- NEW genesigPLEX HBV/HCV/HIV1/HIV2
- NEW genesigPLEX HAV/HEV

Custom multiplex kits

NEW genesigMYPLEX STD - Select any 2/3-way multiplex combination from these 10 key STD viruses

- Chlamydia trachomatis
- Gardnerella vaginalis
- Herpes simplex type 1 and 2
- Mycoplasma genitalium
- Mycoplasma hominis
- Neisseria gonorrhoeae
- Treponema parvum
- Trichomonas vaginalis
- Ureaplasma parvum
- Ureaplasma urealyticum

Periodontal infections

- Aggregatibacter actinomycetemcomitans
- Ascaris lumbricoides and Ascaris suum
- Filifactor alocis
- Lactobacillus genus
- Nitrobacter species
- Nitrosomonas oligotropha
- Nitrosira species
- Porphyromonas gingivalis
- Prevotella intermedia
- Pseudomonas stutzeri
- Streptococcus mutans
- Streptococcus salivarius
- Tannerella forsythia

Human parasites

- Acanthamoeba castellanii
- Acanthamoeba species
- Acholeplasma laidlawii
- Acinetobacter baumannii
- Aspergillus
- Aspergillus fumigatus
- Bacillus anthracis
- Bacillus atrophaeus
- Giardia intestinalis
- Leishmania infantum
- Leishmania major
- Leishmania
- Leishmania tropica
- Naegleria species
- Naegleria Fowleri
- Plasmodium falciparum
- Plasmodium knowlesi

Human parasites continued

- Plasmodium malariae
- Plasmodium ovale
- Plasmodium species
- Plasmodium vivax
- Schistosoma haematobium
- Schistosoma mansoni
- Toxoplasma gondii
- Trypanosoma cruzi
- Trypanosoma evansi
- Ureaplasma parvum

Others

- Campylobacter fetus
- Campylobacter fetus subspecies venerealis
- Candida dubliniensis
- Carnobacterium maltaromaticum
- Chlamydophila abortus
- Clostridium difficile (toxin A)
- Clostridium difficile (toxin B)
- Clostridium sporogenes
- Clostridium tetani
- Corynebacterium diphtheriae (active Diphtheriae toxin domains A and B)
- Dobrava-Belgrade virus
- Encephalitozoon species
- Enterocytozoon bieneusi
- Eukaryota
- Francisella tularensis
- H10N8
- Hand, foot and mouth disease
- Human Enterovirus species
- Human Measles Virus
- Human Measles Virus
- Human Parvovirus B19
- Human Polyomavirus 12
- Human Polyomavirus 6
- Human Polyomavirus 7
- Human Polyomavirus 9
- Human T-lymphotropic virus Type 2
- Human T-lymphotropic virus Type I
- Influenza A H7N9
- KI polyomavirus
- Klebsiella oxytoca
- Klebsiella pneumoniae
- Lactobacillus acidophilus
- Lactobacillus curvatus/Lactobacillus sakei
- Lassa virus Josiah
- Legionella longbeachae
- Lyme disease
- Malassezia restricta

Others continued

- Marburgvirus
- Merkel cell polyomavirus
- Methicillin-resistant Staphylococcus aureus
- Methicillin-resistant Staphylococcus aureus with Staphylococcal cassette chromosome mec(SCC mec)
- Methicillin-resistant Staphylococcus aureus with Staphylococcal cassette chromosome mec(SCC mec) type IVa
- Mumps virus
- Mycobacterium avium
- Mycobacterium fortuitum
- Mycobacterium leprae and Mycobacterium lepromatosis
- Mycobacterium marinum and ulcerans
- Mycoplasma
- Mycoplasma fermentans
- Mycoplasma hominis
- Mycoplasma orale
- Naegleria fowleri
- Naegleria species
- Oxalobacter formigenes
- Pasteurella multocida
- Pneumocystis jirovecii
- Propionibacterium acnes
- Proteus mirabilis
- Pseudomonas aeruginosa
- Rabies Virus
- Reston ebola virus
- Rickettsia prowazekii
- Rift Valley Fever Virus
- Roseburia inulinivorans
- Rubella virus
- Saint Louis Polyomavirus
- Schistosoma haematobium
- Serratia marcescens
- Simian Virus 40
- Sin Nombre Virus
- Staphylococcus aureus
- Staphylococcus epidermidis
- Staphylococcus haemolyticus
- Streptococcus agalactiae
- Streptococcus mitis
- Streptococcus oralis
- Streptococcus pneumoniae
- Streptococcus pyogenes
- Streptococcus sanguinis
- Sudan Ebola Virus
- Tai Forest Ebola Virus
- Toxoplasma gondii
- Trichodysplasia spinulosa associated polyomavirus
- Tsukamurella inchonensis
- Ureaplasma parvum
- WU polyomavirus
- Yersinia pestis
- Zaire ebola virus

Multiplex Kit

- NEW genesigPLEX CMV/EBV/BKV

Can't find what you're looking for?
New kits on demand

See page 4



qPCR test kits food, water and agriculture

qPCR testing methods are proven to be the fastest and most accurate way for screening water and food. We offer highly sensitive kits for food borne pathogens, GMO detection, agriculture, meat speciation, allergen testing and water contaminants.

Pathogen contamination
Genetically modified organisms (GMO)
Speciation
Allergen
Others

Pathogen contamination

- Alpha toxin producing Clostridium perfringens
- Bacillus cereus E33
- Brucella abortus
- Brucella genus (all species)
- Campylobacter Coli
- Campylobacter Jejuni
- Coxiella burnetii
- Crimean-Congo Haemorrhagic Fever Virus
- Cyclospora cayetanensis
- Enterococcus faecalis
- Enterococcus faecium
- Enterohemorrhagic Escherichia coli
- Enteroinvasive Escherichia coli
- Enteropathogenic Escherichia coli
- Enterotoxigenic Escherichia coli
- Escherichia coli (all strains)
- Escherichia coli O157:H7
- Escherichia coli O104:H4
- Francisella tularensis
- Giardia intestinalis (human infections)
- Hepatitis A Virus
- Hepatitis E Virus
- Human Astrovirus 1-8
- JC virus
- Legionella longbeachae
- Legionella pneumophila
- legionella species
- Listeria monocytogenes
- Mycobacterium avium subspecies paratuberculosis
- Naegleria species
- Norovirus genogroups I and II
- Pathogenic Salmonella species
- Pseudomonas aeruginosa
- Salmonella enterica
- Shewanella putrefaciens
- shiga toxin (stx1) producing Escherichia coli
- shiga toxin (stx2A) producing Escherichia coli
- shiga toxin (stx2c) producing Escherichia coli
- shiga toxin (stx2f) producing Escherichia coli
- Shigella (all species)
- Simkania negevensis
- toxigenic subspecies of Vibrio cholerae
- Vibrio species
- Cystoisospora belli
- Propionibacterium acnes
- Yersinia enterocolitica

Can't find what you're looking for?
New kits on demand

See page 4

Genetically modified organisms (GMO)

Quantification kits

- GMO Maize Bt11
- GMO Maize Bt176
- GMO Maize MON810
- GMO Maize NK603
- GMO Soya Roundup Ready

Screening kits

- GMO 35S promoter
- GMO tNOS
- GMO FMV
- GMO Maize 35S and NOS
- GMO Soya 35S and NOS

Speciation

Meat speciation kits

- Beef
- Buffalo
- Cat
- Chicken
- Cod
- Coley
- Cow
- Dog
- Donkey
- Duck
- European Plaice
- Universal Fish
- Goat
- Haddock
- Horse
- Universal Meat

Speciation *continued*

- Ostrich
- Pork
- Sheep
- Turkey
- Venison
- Warthog
- Universal Meat Detection

Fish speciation kits

- Atlantic Cod
- Coley
- European eel
- European Plaice
- Haddock
- Pollock
- Whiting
- Universal fish detection

AnimalFINDER for detection of highly processed samples

- Buffalo
- Cat
- Chicken
- Cod
- Coley
- Cow
- Dog
- Donkey
- Duck
- European Plaice
- Universal Fish
- Goat
- Haddock
- Horse
- Universal Meat

Speciation *continued*

- Mouse
- Ostrich
- Pig
- Pollock
- Sheep
- Turkey
- Venison
- Whiting

Allergen

- Celery: *Apium graveolens*

Others

- Bacteria Domain
- *Bifidobacterium bifidum*
- *Bifidobacterium longum*
- *Botrytis cinerea*
- *Clavibacter michiganensis*

Others *continued*

- *Clavibacter michiganensis* sub species *michiganensis*
- *Clostridium estertheticum*
- *Dekkera bruxellensis*
- *Fusarium* species
- Hop resistant *Lactobacillus* and *Pediococcus* species
- *Lactobacillus acidophilus*
- *Lactobacillus plantarum*
- *Lactobacillus plantarum* and *paraplanitarum*
- *Lactobacillus* species
- *Lactococcus lactis*
- *M.cerevisiae/M.elsdenii*
- Maize chlorotic mottle virus
- Maize dwarf mosaic virus
- Maize mosaic nucleorhabdovirus
- *Megasphaera cerevisiae/Megasphaera elsdenii*
- *Pectinatus* genus
- *Pectinatus* species
- *Pediococcus* genus
- *Pediococcus* species
- Potato mop-top virus
- Potato mop-top virus
- *Saccharomyces cerevisiae*
- *Schistosoma haematobium*
- *Schistosoma mansoni*
- *Spongopora subterranea* f. sp. *subterranea*
- *Staphylococcus aureus*
- *Streptococcus sanguinis*
- Sugarcane mosaic virus
- tellurite resistant *Escherichia coli*
- *Tenebrio molitor*
- *Ureaplasma parvum*
- *Vibrio cholerae* subspecies



Beer spoilage detection made easy

Spoilage

Early detection of bacteria is the best method to avoid beer and beverage spoilage. Spoilage bacteria form as part of the natural decay in the brewing process and can result in wasted product and loss of profit. Detecting these bacteria in yeast stocks or in brewing equipment is the fastest and easiest way to avoid a problem.

Campden BRI Evaluation

The kits have been evaluated by Campden BRI - the UK's largest independent organisation and validation body supporting the food and drinks industry worldwide.

Hop resistant *Lactobacillus* and *Pediococcus* species

Hop resistant genes horA and horC, when found in the species *lactobacillus* and *pediococcus*, enable these lactic acid producing bacteria to grow in beer. This results in beer with bitter and unpleasant flavours.

Pectinatus

Pectinatus bacteria cause beer spoilage by producing off flavours and turbidity. Detection of these bacteria is currently carried out using conventional microbiology. However, this is complicated by the strict anaerobic conditions and lengthy incubation times required for their cultivation. Consequently, there is a need for rapid detection methods.

Pediococcus

Pediococcus is a very common spoilage bacteria often considered one of the most difficult types of bacteria to remove from an infected brewery. *Pediococci* cause high acidity, buttery aroma and inhibit yeast growth, which results in decreased fermentation rates.

CATALOGUE NO.	PRODUCT DESCRIPTION	KIT SIZE
Path-HorA/HorC-EASY	genesig Easy kit for hop resistant <i>Lactobacillus</i> and <i>Pediococcus</i> species	50rxn
Path-Pediococcus_spp-EASY	genesig Easy kit for <i>Pediococcus</i> genus	50rxn
Path-Pectinatus_spp-EASY	genesig Easy kit for <i>Pectinatus</i> genus	50rxn



qPCR test kits veterinary pathogens

The veterinary range is currently the fastest growing part of the genesig portfolio. qPCR based veterinary kits attract a lot of attention and this product range addresses some truly unique challenges in the field.

Can't find what
you're looking for?
New kits on demand

See page 4

Veterinary pathogen kits

- Acholeplasma laidlawii
- Acute bee paralysis virus
- Aeromonas hydrophila
- Aeromonas salmonicida
- African Horse Sickness Virus
- African Trypanosomiasis
- Agapornis species
- Aleutian Disease Virus
- All Encephalitozoon species
- All pathogenic Salmonella species
- Anaplasma centrale
- Anaplasma marginale
- Anaplasma phagocytophilum
- Ancylostoma duodenale
- Aspergillus
- Aspergillus fumigatus
- Aspicularis tetraptera
- Atlantic salmon paramyxovirus
- Avian adenovirus EDS76 Egg Drop Syndrome
- Avian Bornavirus
- Avian Infectious Bronchitis Virus (IBV)
- Avian Influenza A Virus Subtype H5
- Avian Influenza A Virus Subtype H6
- Avian Influenza A Virus Subtype H7
- Avian Influenza A Virus Subtype H9
- Avian orthoreovirus
- Babesia bigemina
- Babesia bovis
- Babesia caballi
- Babesia canis
- Babesia divergens
- Babesia gibsoni
- Bacillus anthracis
- Bartonella henselae
- Batrachochytrium dendrobatidis
- Beak and Feather Disease Virus
- Betanodavirus
- Bird flu
- Blastocystis genus (all species)
- Bluetongue Virus
- Bluetongue Virus 1
- Bluetongue Virus 8
- Border Disease Virus
- Bordetella Bronchiseptica and Bordetella Parapertussis
- Bovine adenovirus 3
- Bovine adenovirus 5,6 and 8
- Bovine ephemeral fever virus
- Bovine herpesvirus 1
- Bovine Leukemia Virus
- Bovine parainfluenza virus 3
- Bovine Parvovirus
- Bovine Respiratory Corona Virus
- Bovine Respiratory Syncytial Virus
- Bovine Viral Diarrhoea Virus
- Brachyspira hydysenteriae
- Brucella abortus
- Brucella suis
- Budgerigar Fledgling Disease Virus (avian polyomavirus)
- Burkholderia mallei
- Burkholderia pseudomallei
- Camelpox virus
- Campylobacter Coli
- Campylobacter coli and Campylobacter jejuni
- Campylobacter fetus
- Campylobacter fetus subspecies venerealis
- Campylobacter Jejuni
- Candidatus Branchiomonas cysticola
- Candidatus Mycoplasma haemominutum

Veterinary pathogen kits

continued

- Candidatus Mycoplasma turicensis
- Canine adenovirus 1
- Canine adenovirus 2
- Canine coronavirus
- Canine Distemper Virus
- Canine herpes virus
- Canine influenza (H3N8)
- Canine Norovirus
- Canine parainfluenza virus
- Capripoxvirus
- Carnivore protoparvovirus 1
- Chicken anemia virus
- Chlamydiaceae (all species)
- Chlamydophila abortus
- Chlamydophila felis
- Chlamydophila pneumoniae
- Chlamydophila psittaci
- Classical swine fever virus
- Clostridium tetani
- Columbid Circovirus
- Columbid herpesvirus 1
- Corynebacterium pseudotuberculosis
- Coxiella burnetii
- Crimean-Congo Haemorrhagic Fever Virus
- Cryptococcus neoformans
- Cryptosporidium
- Cyclospora cayetanensis
- Cyprinid herpesvirus 3
- Dirofilaria immitis
- Dobrava-Belgrade virus
- Duck Hepatitis B Virus
- Echinococcus granulosus
- Ehrlichia canis
- Encephalitozoon cuniculi
- Encephalitozoon species
- Enterocytozoon bieneusi
- Enterocytozoon hepatopenaei
- Enterohemorrhagic Escherichia coli
- Enteroinvasive Escherichia coli
- Enteropathogenic Escherichia coli
- Enterotoxigenic Escherichia coli
- Epizootic haematopoietic necrosis virus
- Epizootic Hemorrhagic Disease Virus
- Equid Herpesvirus 1
- Equid Herpesvirus 2
- Equid Herpesvirus 3
- Equid Herpesvirus 4
- Equid Herpesvirus 5
- Equine Arteritis Virus
- Equine infectious anemia virus
- Equine Rhinovirus type 1
- Equine Rhinovirus type 2
- Equine/Canine influenza (H3N8 & H7N7)
- Escherichia coli (all strains)
- Escherichia coli 0157:H7
- Feline calicivirus
- Feline coronavirus
- Feline Herpesvirus
- Feline Immunodeficiency Virus
- Feline Leukemia Virus
- Flavobacterium psychrophilum
- Foot and Mouth Disease Virus
- Fowlpox Virus
- Francisella tularensis
- Gallid herpesvirus 1
- Gallid herpesvirus 2
- Geosmithia argillacea
- Giardia intestinalis, Assemblage A-F(veterinary infections)
- Grass Carp Reovirus
- H10N8
- H5N8
- Human Rotavirus A
- Human Rotavirus B
- Human Rotavirus C
- Infectious Bursal Disease Virus (IBDV)
- Infectious Hematopoietic Necrosis Virus
- Infectious hypodermal and hematopoietic necrosis virus
- Infectious Pancreatic Necrosis Virus
- Infectious salmon anemia virus
- Infectious salmon anemia virus (avirulent)
- Infectious salmon anemia virus (Canadian)
- Infectious salmon anemia virus (European)
- Infectious spleen and kidney necrosis virus
- Influenza A H7N9
- Israeli Acute Paralysis Virus
- Klebsiella oxytoca
- Klebsiella pneumoniae capsule type 1
- Klebsiella pneumoniae capsule type 2
- Klebsiella pneumoniae capsule type 5
- Lawsonia intracellularis
- Leptospirosis
- Listeria monocytogenes
- Lymphocystivirus
- Mammalian Babesiosis
- Marburgvirus
- Microsporum canis
- Microsporum gypseum
- Minute virus of canines (Canine minute virus)
- Mycobacterium avium
- Mycobacterium avium subspecies paratuberculosis
- Mycoplasma
- Mycoplasma arginini
- Mycoplasma bovis

- Mycoplasma felis
- Mycoplasma gallisepticum
- Mycoplasma haemofelis
- Mycoplasma hyopneumoniae
- Mycoplasma hyorhinis
- Mycoplasma iowae
- Mycoplasma meleagridis
- Mycoplasma mycoides cluster
- Mycoplasma species haemofelis and haemocanis
- Mycoplasma suis
- Mycoplasma synoviae
- Myobia musculi
- Myocoptes musculinus
- Neoparamoeba perurans
- Neospora caninum
- Newcastle disease virus
- Nodavirus
- Ornithobacterium rhinotracheale
- Paenibacillus larvae
- Paranucleospora theridion
- Parvicipapsula pseudobranchicola
- Pasteurella multocida
- Peste-des-petits-ruminants Virus
- Photobacterium damsela
- Photobacterium damsela subsp. piscicida
- Photobacterium phosphoreum
- Pigeon adenovirus 1
- Piscine reovirus
- Piscirickettsia salmonis
- Porcine circovirus 1
- Porcine circovirus 2
- Porcine epidemic diarrhoea virus
- Porcine parvovirus
- Porcine Reproductive & Respiratory Syndrome Virus
- Porcine Reproductive & Respiratory Syndrome
- Virus, EU strains
- Porphyromonas gingivalis
- Pseudomonas aeruginosa
- Rabbit hemorrhagic disease virus type 2
- Rabies Virus
- Reston ebola virus
- Rhodococcus equi
- Rift Valley Fever Virus
- Salmon gill poxvirus
- Salmonella enterica
- Salmonid alphavirus
- SARS coronavirus
- Sheep Poxvirus
- Shewanella putrefaciens
- shiga toxin (stx1) producing Escherichia coli
- shiga toxin (stx2A) producing Escherichia coli
- shiga toxin (stx2c) producing Escherichia coli
- Slow Bee Paralysis Virus
- Spironucleus muris
- Spring Viremia of Carp Virus
- Streptococcus agalactiae
- Streptococcus equi subspecies equi
- Streptococcus equi subspecies zooepidemicus
- Streptococcus mitis
- Streptococcus oralis
- Streptococcus pneumoniae
- Streptococcus pyogenes
- Streptococcus salivarius
- Streptococcus sanguinis
- Strongylus vulgaris
- Sudan Ebola Virus
- Swinepox
- Syphacia muris
- Syphacia obvelata

- Tai Forest Ebola Virus
- Taylorella equigenitalis
- Tellurite resistant Escherichia coli
- Tenebrio molitor
- Theileria annulata
- Theileria equi (formerly Babesia equi)
- Theileria mutans
- Theileria parva
- Tilapia lake virus
- Toxigenic subspecies of Vaccinia virus
- Toxoplasma gondii
- Transmissible Gastro Enteritis Virus & Porcine Respiratory Coronavirus
- Transmissible gastroenteritis virus
- Trichophyton mentagrophytes
- Tritrichomonas foetus
- Trypanosoma equiperdum
- Trypanosoma evansi
- Vesicular stomatitis virus
- Vesivirus2117
- Veterinary Rotavirus B
- Veterinary Rotavirus C
- Vibrio parahaemolyticus
- Viral Hemorrhagic Septicemia Virus
- Wesselsbron Virus
- White spot syndrome virus
- Yersinia ruckeri
- Zaire ebola virus

Multiplex Kit

- NEW genesigPLEX Kit SE/SZ (Streptococcus equi subspecies equi & Streptococcus equi subspecies zooepidemicus)



CEMO, K. pneumoniae and P. aeruginosa test kits

Permission granted to be used by registered laboratories in the HBLB testing scheme.

CEMO detection bundle

We offer a bundle of three validated kits to detect *Taylorella equigenitalis* (CEMO), *Klebsiella pneumoniae* and *Pseudomonas aeruginosa* independently.

These kits have been granted permission to be used by registered laboratories in the HBLB testing scheme. Please visit our website for further information and to read our validation report.

The Primerdesign kit is available in an open platform format for use on any qPCR instrumentation including those from QIAGEN, Bio-Rad, Roche and more. Alternatively genesig Easy versions of the kits are available on the genesig q16.

Kit features

- Exceptional value for money
- 150 tests per kit
- Highly sensitive
- High priming efficiency
- Sensitive to < 100 copies of target
- Targets multiplexed with internal extraction control
- Positive and endogenous controls included
- Positive copy number standard curve for quantification
- Accurate controls to confirm findings

CATALOGUE NO.	PRODUCT DESCRIPTION	KIT SIZE
Path-T.equi/K.pne/ P.aeu	genesig real time PCR detection three kit bundle for <i>Taylorella equigenitalis</i> , <i>Klebsiella pneumoniae</i> , and <i>Pseudomonas aeruginosa</i>	150rxn
Path-T.equi/K.pne/ P.aeu-standard	genesig Standard real time PCR detection three kit bundle for <i>Taylorella equigenitalis</i> , <i>Klebsiella pneumoniae</i> , and <i>Pseudomonas aeruginosa</i>	150rxn



qPCR test kits biothreat

qPCR is the perfect tool for rapid detection of hazardous biological agents like anthrax, cholera toxins etc.

Biothreat

- African Horse Sickness Virus
- all pathogenic *Salmonella* species
- Alpha toxin producing *Clostridium perfringens*
- *Bacillus anthracis*
- *Burkholderia mallei*
- *Burkholderia pseudomallei*
- *Chlamydophila psittaci*
- *Coxiella burnetii*
- *Cryptosporidium*
- *Escherichia coli* O157:H7
- *Francisella tularensis*
- H1N1 influenza
- Japanese Encephalitis Virus
- Marburg Virus
- Reston ebola virus
- Rift Valley Fever Virus
- *Staphylococcus aureus*
- Sudan Ebola Virus
- Taï Forest Ebola Virus
- toxicigenic subspecies of *Vibrio cholerae*
- *Vaccinia* virus
- West Nile Virus
- Western equine encephalomyelitis virus (WEEV)
- *Yersinia enterocolitica*
- Zaire ebola virus

Can't find what
you're looking for?
New kits on demand

See page 4



qPCR test kits genotyping

quasa kits (Quantitative Allele Specific Amplification) are developed specifically for the detection of rare mutations. quasa kits give specific and sensitive detection down to low copy numbers in the presence of competing wild type DNA. Kits are quantitative and sensitive down to 0.1%. For germline mutation testing our snpsig kits use our own proprietary genotyping method (snpsig) to maximise the resolution between wild type samples and variant samples. These novel kits can be used on any real time PCR machine using familiar protocols, whilst resulting in exceptional genotyping data.

Somatic mutation detection
Drug resistance detection
Germline mutation detection

Somatic mutation detection

- BRAF (V600E)
- JAK2 v617f
- EGFR-T790M

Drug resistance detection

- Antibiotic Resistance: blaGES
- Tamiflu resistance H1N1-H275Y

Germline mutation detection

- CSRP3-W4R
- CYP2C19 codon 212
- CYP2C19 codon 227
- Cystic Fibrosis (CFTR)
- Factor V Leiden
- GABBR2-E421K
- GSTP1-A114V
- GSTP1-I105V
- Haemochromotosis
- IL17F-H161R
- IL23R-R381Q
- IL28B-rs12979860
- OPRM1 N40D (Opiod receptor)
- Prothrombin

Can't find what
you're looking for?
New kits on demand

See page 4

oasig™ Lyophilised 2X qPCR Master Mixes

High quality, robust 2X qPCR master mix and OneStep RT-qPCR master mix supplied lyophilised.

The core components are a hot start Taq polymerase enzyme and a modified MMLV reverse transcriptase enzyme with a Magnesium Chloride based buffer. Stabilisers and preservatives ensure that lyophilisation does not affect the performance.

Product features

- Supplied lyophilised – no cold shipping required
- Precise reproducible results
- One product works perfectly with all real time PCR machines

oasig lyophilised reagents represent a milestone in qPCR technology

Their formulation stabilises all of the active components and allows them to be shipped and stored at room temperature. They are stable for more than 18 months at ambient temperatures. This hugely simplifies the logistics of purchasing, shipping and using the technology. Whether you are in a sophisticated laboratory in Texas or a mobile field hospital in Timbuktu we can supply complete qPCR kit and reagent packages to your door quickly and cheaply via standard shipping methods without the need for dry ice or a cold chain of any sort.

The performance of the reagents is second to none. We are confident that you will find excellent data quality and even see an improvement in data quality versus many traditional frozen master mixes.

NEW! oasig™PLEX Lyophilised qPCR Master Mixes

oasig™PLEX Lyophilised qPCR Master Mix

oasigPLEX Lyophilised qPCR Master Mix is a freeze-dried 2X master mix that is optimised to produce an enhanced level of performance in multiplex applications. The qPCR master mix is designed for rapid cycling protocols and contains an antibody mediated hot start mechanism which releases more active enzyme and requires a much shorter activation time.

Included in our oasigPLEX Lyophilised qPCR Master Mix is ampliSOLVE, an innovative solution which will remove amplicon contamination, resulting in an enhanced efficiency and performance of the qPCR reaction.

- Optimised for multiplex applications
- Higher throughput
- Reduced shipping costs
- ampliSOLVE for artefact removal
- Supplied lyophilised - no cold chain shipping required

oasig™PLEX Lyophilised OneStep RT-qPCR Master Mix

oasigPLEX Lyophilised qPCR Master Mix is a freeze-dried speciality 2X master mix optimised for use in multiplex OneStep RT-qPCR. The kit contains optimised enzyme levels and our proprietary enzyme-buffer system to maximise performance of multiplex assays.

Included in our 2X master mix is ampliSOLVE, an innovative solution which will remove amplicon contamination and reduce the possibility of primer dimer formation. Resulting in an enhanced efficiency and performance of the qPCR reaction.

- Optimised for multiplex applications
- Higher throughput
- Reduced shipping costs
- ampliSOLVE for artefact removal
- Supplied lyophilised - no cold chain shipping required
- Suitable for both RNA and DNA

CATALOGUE NO.	PRODUCT DESCRIPTION	KIT SIZE
oasig-standard-150	oasig Lyophilised 2X qPCR Master Mix	150rxn
oasig-onestep-150	oasig Lyophilised 2X OneStep RT-qPCR Master Mix	150rxn

CATALOGUE NO.	PRODUCT DESCRIPTION	KIT SIZE
oasigPLEX-150	oasigPLEX Lyophilised qPCR Master Mix	150rxn
oasigPLEX-OS-150	oasigPLEX Lyophilised OneStep RT-qPCR Master Mix	150rxn

genesig® Easy Extraction Kits

Rapid nucleic acid isolation solutions for virtually any sample.

genesig® Easy Lysobead Direct-to-PCR Extraction Kit

The new genesig Easy Lysobead Direct-to-PCR Extraction Kit allows rapid isolation of highly purified DNA suitable for any downstream amplification reaction such as real time PCR. Reliable DNA extraction can be obtained from the smallest amounts of source material (up to 20mg or 100µl).

- Fast DNA extraction in under 10 minutes
- User friendly 5 step protocol in one tube
- Works with huge range of difficult sample types
- Cost effective with no expensive equipment required

The protocol incorporates disruption bead technology in a PCR-ready lysis formulation, allowing for single tube preparation of DNA samples for testing in under 10 minutes. This is a significant reduction in the time it takes to extract DNA from microbes with highly developed cell walls, such as gram positive bacteria, fungal and mycobacteria samples, where the lysis stage was typically augmented with either a prolonged overnight incubation, or with mechanical disruption steps.

Suitable sample types

Suitable sample types include swabs, urine, meat, fish, milk, plant soil and water.

genesig® Easy DNA/RNA Extraction Kit

The genesig Easy DNA/RNA Extraction Kit allows DNA and RNA extraction from virtually any sample type using magnetic bead technology - it's fast, and incredibly easy to perform.

- Extracts DNA and RNA with high yields <60 minutes
- Works with huge range of sample types
- Safe protocol with no phenolic chemicals
- No centrifuge or electrical equipment required - for use in the lab or in the field

The genesig easy DNA/RNA extraction protocol begins with a simple lysis step where cells and tissue are lysed to release their nucleic acid. Then tiny magnetic particles are added to bind to RNA/DNA. When placed on to the genesig magnetic separator the particles are pulled to the side of the tube making it easy to remove the unwanted supernatant with a pipette. Then a series of simple wash steps are performed before the DNA/RNA is washed off the beads back in to solution, ready for analysis by real time PCR. Its fast, and incredibly easy to perform.

Suitable sample types

Suitable sample types include whole blood, plasma and serum; saliva and sputum; faeces and urine; tissues; and bacterial culture broth, as well as meat, fish, milk and cooked or processed meats, plus plant, soil and water.

The genesig® Lab-in-a-Box

Create a lab for anyone and anywhere.

Even if you've never performed a DNA test in your life, the genesig q16 makes it affordable and easy to do. If you've never done this kind of testing then you probably don't have a laboratory. That's fine, as our Lab-in-a-Box provides all of the simple tools that you'll need to get started.

- A genesig magnetic rack for DNA/RNA extraction
- Fixed volume, colour-coded pipettes for simple liquid handling
- Disposable tips for the pipettes
- Tube racks to hold everything in place whilst you work
- Digital laboratory timer



CATALOGUE NO.	PRODUCT DESCRIPTION	KIT SIZE
genesigEASY-Lysobead	genesig Easy Lysobead Direct-to-PCR Extraction Kit	50 extractions
genesigEASY-EK	genesig Easy DNA/RNA Extraction Kit	50 extractions
genesigEASY-EK-PLANT	genesig Easy DNA/RNA Plant Extraction Kit	50 extractions
genesigEASY-MR	genesig Easy Magnetic Rack for DNA/RNA extraction	1 rack
genesigEASY-LIAB	Lab-in-a-Box containing all the tools needed to prepare samples for the genesig q16	1 box

GENESIG

genesig qPCR test kits by Primerdesign

www.primerdesign.co.uk

genesig kits are sold for general laboratory and research use only. Please feel free to contact us for free advice or technical support.

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