



EasyScreen™ Respiratory Detection Range

Automated solutions for syndromic testing of over 20 respiratory pathogens using Genetic Signatures' 3base™ multiplex technology

Overview

- Syndromic testing solutions for clinically relevant respiratory pathogens, including the novel SARS-CoV-2 variants and other seasonal coronaviruses
- Flexibility with universal extraction process regardless of sample type and multi-batch capability for sample processing
- Automated extraction and PCR setup for both high and medium throughput workflows on Genetic Signatures' automated platforms
- Compatible respiratory sample types include nasopharyngeal aspirate, bronchial lavage, dry respiratory swabs, respiratory swabs in UTM, PBS, VTM, or ESwab/Amies



3base™ Technology

Our 3base™ technology enables the naturally occurring 4 base genome to be converted to one with 3 bases, changing C to T, and offers many advantages for multiplex real-time PCR

3base™
Mechanism

C G T A G C C T C A C T T C C A G G A C T G G C
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
T G T A G T T T A T T T T T A G G A T T G G T

- Significantly improved sequence similarity of sub-species provides increased immunity to genetic variants, enabling screening of potential variants in a sample
- Improved conditions for multiplex PCR in which primers and probes work optimally at similar temperatures

EasyScreen™ Respiratory Detection Kits

Product #	EasyScreen™ Detection Kit	Targets	IVD Status
RP003*	Coronavirus Detection Kit	Coronavirus HKU-1 Coronavirus OC43 Coronavirus NL63/229E	Research Use Only
RP007	Respiratory Pathogen Detection Kit	Influenza A Rhinovirus Influenza B Respiratory syncytial virus- A/B Human Metapneumovirus Parainfluenza 1/3 Enterovirus Parainfluenza 2 <i>Bordetella pertussis</i> / <i>Bordetella parapertussis</i> <i>Mycoplasma pneumoniae</i> Adenovirus	TGA CE-IVD
RP009	Atypical Respiratory Pathogen Detection Kit	<i>Chlamydia pneumoniae</i> ® <i>Streptococcus pneumoniae</i> ® <i>Legionella pneumophila</i> ® Haemophilus influenzae* Bocavirus* <i>Bordetella pertussis</i> / <i>Bordetella holmseii</i> * <i>Bordetella holmseii</i> * <i>Bordetella parapertussis</i> *	CE-IVD® Research Use Only*
RP012	SARS-CoV-2 Detection Kit	N-gene M-gene	TGA CE-IVD
RP014	SARS-CoV-2 Respiratory Plus Detection Kit	Influenza A Rhinovirus Influenza B Respiratory syncytial virus- A/B Human Metapneumovirus SARS-CoV-2	CE-IVD
RP015*	SARS-CoV-2 Variant Detection Kit	Contact us for more information on available assays	Research Use Only

* For Research Use Only (RUO) and not for In Vitro Diagnostic (IVD) use

Workflow Solutions

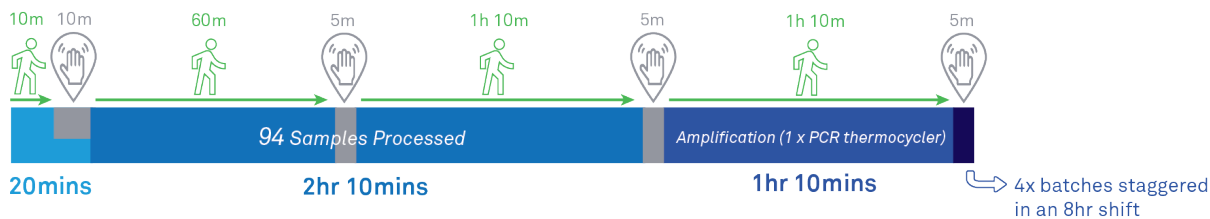
Genetic Signatures' automated instruments enable high-throughput workflow solutions combining nucleic acid extraction and PCR setup on one platform. Available platforms include the GS1/GS1-HT, GS-1000 and GS-mini.

Workflow advantages:

- Fast turn-around-time to results
- Significant automation and walk-away-time
- Increased staff productivity
- Reduced footprint and wastage
- Automated data analysis and integration to Laboratory Information System (LIS)

EasyScreen™ Respiratory Pathogen Detection Kit, RP007

Workflow on the GS1-HT



- Sample Lysis & 3base™ Conversion
- Sample Processing & PCR setup
- Real-Time PCR
- Analysis & Results Interpretation
- 🚶 Walk-away-time
- 👤 Hands-on-time

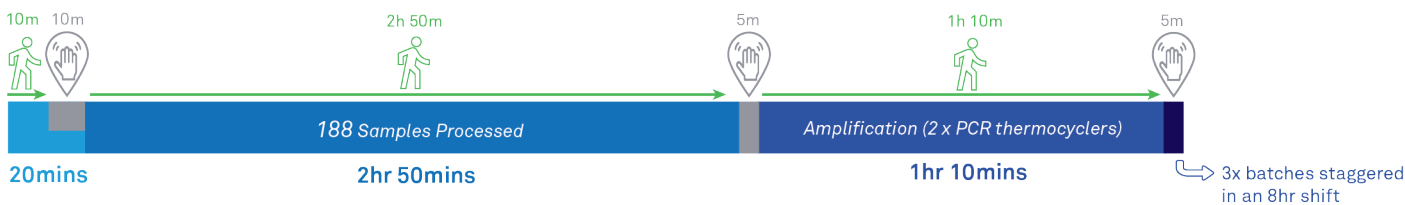
Targets
Influenza A, Rhinovirus
Influenza B, Respiratory syncytial virus- A/B, Human Metapneumovirus
Parainfluenza 1/3, Enterovirus, Parainfluenza 2
<i>Bordetella pertussis/ Bordetella parapertussis, Mycoplasma pneumoniae, Adenovirus</i>

Time to first result: 3hr 55mins

In an 8hr shift: 4 batches started = 376 samples + 3hr 30mins walk-away-time/batch

EasyScreen™ Respiratory Pathogen Detection Kit, RP007

Workflow on the GS-1000

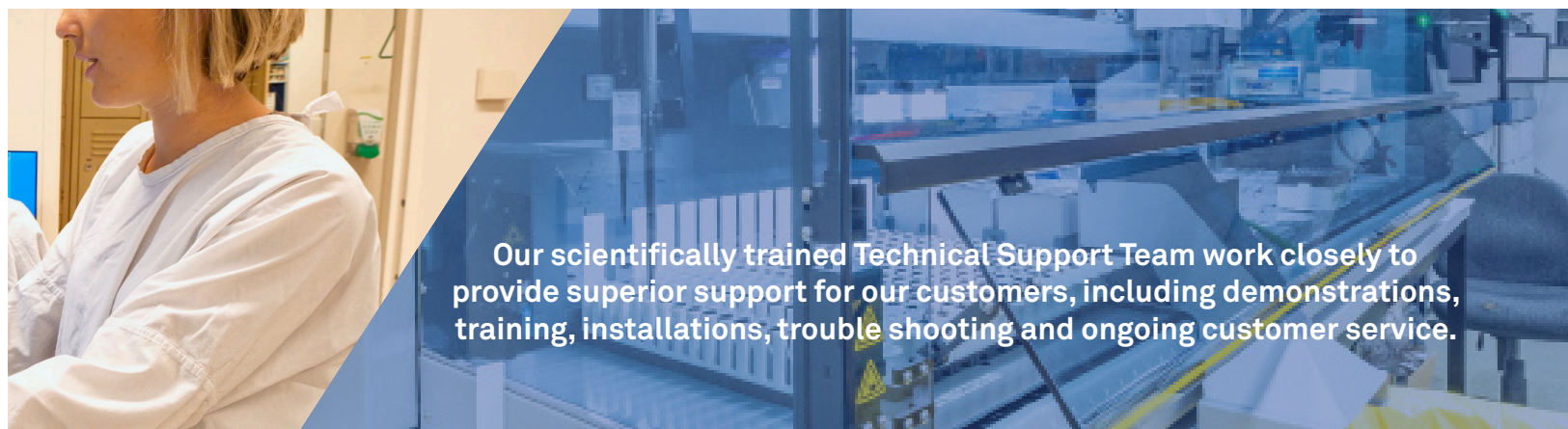


- Sample Lysis & 3base™ Conversion
- Sample Processing & PCR setup
- Real-Time PCR
- Analysis & Results Interpretation
- 🚶 Walk-away-time
- 👤 Hands-on-time

Targets
Influenza A, Rhinovirus
Influenza B, Respiratory syncytial virus- A/B, Human Metapneumovirus
Parainfluenza 1/3, Enterovirus, Parainfluenza 2
<i>Bordetella pertussis/ Bordetella parapertussis, Mycoplasma pneumoniae, Adenovirus</i>

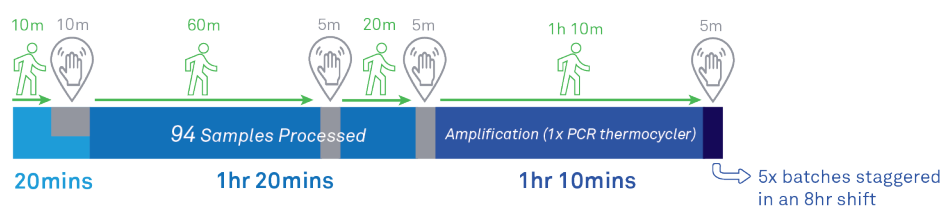
Time to first result: 4hr 30mins

In an 8hr shift: 3 batches started = 564 samples + 4hr 10mins walk-away-time/batch



EasyScreen™ SARS-CoV-2 Detection Kit, RP012

Workflow on the GS1-HT



- Sample Lysis & 3base™ Conversion
- Sample Processing & PCR setup
- Real-Time PCR
- Analysis & Results Interpretation
- 🚶 Walk-away-time
- 👤 Hands-on-time

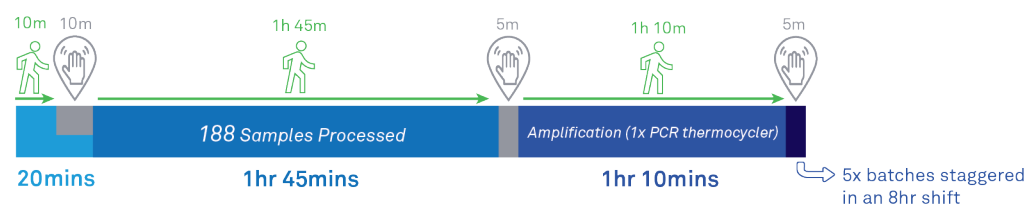
Targets
N-gene, M-gene

Time to first result: **3hr 5mins**

In an 8hr shift: **5** batches started = **470** samples + **2hr 40mins** walk-away-time/batch

EasyScreen™ SARS-CoV-2 Detection Kit, RP012

Workflow on the GS-1000



- Sample Lysis & 3base™ Conversion
- Sample Processing & PCR setup
- Real-Time PCR
- Analysis & Results Interpretation
- 🚶 Walk-away-time
- 👤 Hands-on-time

Targets
N-gene, M-gene

Time to first result: **3hr 25mins**

In an 8hr shift: **5** batches started = **940** samples + **3hr 5mins** walk-away-time/batch

Automated Instruments

Our automated instruments are compatible with the full range of *EasyScreen™* Detection Kits, allowing pathology services to screen for an array of syndromic conditions.

EasyScreen™ Detection Kits are compatible with most common thermocycler systems including the BioRad CFX384™ and Applied Biosystems QuantStudio™ 5 96-well and 384-well systems. This can provide additional flexibility and reduced capital outlay with the implementation of our workflow solutions.

Our instruments provide flexibility to perform testing with all *EasyScreen™* kits such as Respiratory, Enterics and STIs on a common platform, which simplifies the laboratory workflow while meeting the demand for high-throughput molecular testing for these disease areas¹.

GS1-HT



GS-1000



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Scan the QR code to contact us for more information on our products or for any other enquiries.

Genetic Signatures

Transforming
Molecular
Diagnostics

Publications

1. Bell Potter Securities Estimates (Initiation of Coverage Report) and World Market for Molecular Diagnostics, 5th. Edition (Infectious Disease, Oncology, Blood Screening, Pre-Natal and Other Areas), Kalorama Information, Published: 1/9/2013.

