

# AusDiagnostics TODAY

New  
Ultraplex  
Alliance™



## Ultraplex Alliance™

Aligning the MT-Prep™ XL and Ultraplex 3 to deliver results for up to 96 samples in 4 hrs 45 mins.

### Features and benefits

- Detect up to 30 genetic markers simultaneously
- Attain results from up to 96 primary samples in 4 hrs 45 mins
- Process different sample types in the same run
- Just 20 minutes total hands-on time in one full workflow
- Automatic barcode scanning for end-to-end traceability



#### Optimal automation process

Primary sample aliquoting, sample purification, and MT-PCR are fully automated to minimise hands-on time.



#### Automatic barcode scanning

Primary sample barcodes are automatically scanned to save time and allow end-to-end traceability.



#### Universal MT-PCR panels

Detect up to 30 targets in one run with new and improved universal MT-PCR panels.



#### Multi-channel pipettor

Proven pipetting technology ensures consistently reliable and accurate liquid dispensing for trusted results.

AusDiagnostics

High throughput  
solutions from  
sample to result

MT-Prep™ XL

Purify RNA/DNA  
from 96 samples  
in 1 hr 45 mins



Ultraplex 3

Detect 30 targets  
from 96 samples  
in 3 hours

AusDiagnostics  
New Zealand has  
moved!

#### New address

B/11 Paul Matthews Road  
Rosedale Auckland 0632  
New Zealand

We will continue to deliver  
exceptional customer care  
from our new office.

# AusDiagnostics MT-PCR panels can detect recently emerged variants of SARS-CoV-2

New SARS-CoV-2 variants emerged recently in the UK, South Africa, and Brazil containing multiple mutations in the segment of the virus genome that encodes the spike protein.

The new variants possess concerning attributes including increased transmission<sup>1</sup>, increased disease severity<sup>2</sup>, and higher resistance to therapies<sup>3</sup>.

As ongoing testing and surveillance continues to play a critical role in limiting spread of SARS-CoV-2, it is important to ensure that existing diagnostic tests are able to detect SARS-CoV-2 reliably in the context of emerging viral mutations.

AusDiagnostics' two independent SARS-CoV-2 assays in existing respiratory MT-PCR panels were evaluated for mutations in priming sites with reference to the sequences of the UK, South Africa and Brazil SARS-CoV-2 variants.

## UK variant

Two out of 109 sequences in the UK variant clade B.1.1.7 had independent

mutations in the AusDiagnostics priming sites. Due to the position of these mutations, the two current SARS-CoV-2 assays in existing MT-PCR panels will perform normally against the UK SARS-CoV-2 variant.

## South Africa variant

One out of 20 sequences in the South Africa variant clade B.1.351 had a mutation in one of the AusDiagnostics priming sites, however the position of this mutation will not affect performance of the two SARS-CoV-2 assays against the South Africa variant.

## Brazil variant

As there are no nucleotide changes in the priming sites or in the amplicon compared to the Brazil reference strain, AusDiagnostics' two SARS-CoV-2 assays are expected to perform normally against the Brazil variant.

While the current variants do not affect the performance of existing SARS-CoV-2 MT-PCR assays, we understand the implications of genetic mutations on reliability of tests so we continue to

closely monitor new emerging variants.

A number of alternative assays for SARS-CoV-2 have already been validated which would enable a rapid response to future significant changes in the SARS-CoV-2 genome.

## References

<sup>1</sup> Davies NG, Abbott S, Barnard RC, et al. Estimated transmissibility and impact of SARS-CoV-2 lineage B.1.1.7 in England. MedRxiv 2021. doi: <https://doi.org/10.1101/2020.12.24.20248822>.

<sup>2</sup> Pearson CAB, Russell TW, Davies NG, et al. Estimates of severity and transmissibility of novel South Africa SARS-CoV-2 variant 501Y.V2.

<sup>3</sup> Wang P, Nair MS, Liu L, et al. Antibody Resistance of SARS-CoV-2 Variants B.1.351 and B.1.1.7. BioRxiv 2021. doi: <https://doi.org/10.1101/2021.01.25.428137>.

<sup>4</sup> Wang P, Wang M, Yu J, et al. Increased Resistance of SARS-CoV-2 Variant P.1 to Antibody Neutralization. BioRxiv 2021. doi: <https://doi.org/10.1101/2021.03.01.433466>.

<sup>5</sup> Horby P, Huntley C, Davies N, et al. NERVTAG note on B.1.1.7 severity. New & Emerging Threats Advisory Group, Jan. 21, 2021.

## Join our team!

At AusDiagnostics, we collaborate in our diverse teams to make a meaningful impact towards a healthier world.

**Are you looking for your next challenge to make a difference?**

Find out more at [ausdiagnostics.com/careers](https://ausdiagnostics.com/careers)

