



Successful SARS-CoV-2 Containment Using the Assure Sentinel™ Program

Kailos Genetics was contracted by a college athletic program to provide COVID-19 sentinel testing for student athletes. At the inception of the sentinel testing program, the student athlete population COVID-19 positivity rate was about 10%. Prior to partnering with Kailos, the athletic program was sending individual samples from their symptomatic athletes to a commercial laboratory running a reverse-transcription polymerase chain reaction (RT-PCR) COVID-19 test. Working with Kailos, the college elected to test about 20% of their student athlete population once per week with the Assure Sentinel next generation sequencing (NGS) test. Over the next six weeks, the student athlete COVID-19 positivity rate declined to less than 2%. In the seventh week, the college did a side-by-side comparison of the RT-PCR commercial lab and the Kailos Assure Sentinel NGS tests (see details below). This comparison study indicated that the RT-PCR and the Assure Sentinel NGS COVID-19 tests are concordant in their results.

Highlights:

- Sample collection is easy and painless using the ViraWash™ oral rinse collection kit
- Testing is part of a comprehensive safety solution designed to maintain low virus prevalence in your organization. Kailos Genetics can customize the optimal testing plan for your institution
- Program is economically priced to enable routine testing



SARS-CoV-2 Detection in Oral Rinse Samples Using RT-PCR and Assure Sentinel

On a single day, 105 oral rinse samples were collected on a college campus. The samples were tested for the presence of SARS-CoV-2 (CoV-2, the virus that causes COVID-19) using an RT-PCR assay run at a third-party laboratory and the Kailos Genetics Assure Sentinel NGS assay.

For the RT-PCR assay, each individual sample was tested for the CoV-2 virus. A cycle threshold (C_t) value was recorded for each sample. For Assure Sentinel NGS testing, the samples were combined into seven pools of 15 samples each and the depth and breadth (number of sequence reads and viral genome regions sequenced) of CoV-2 genome sequence coverage was determined for each sample pool. CoV-2 was detected in two of the seven pools. Subsequently, the 30 samples comprising the two positive pools were then tested individually. CoV-2 infection was identified in two individuals.

Both the third-party RT-PCR and Assure Sentinel NGS assays detected CoV-2 in the same two samples. The RT-PCR testing established a C_t of 29.9 and 32.6 for the two positive samples and Assure Sentinel testing validated these results with read depths of 1,571 (10 genome regions) and 2,886 (25 regions) for the same samples. This comparison study indicates that the RT-PCR assay and the Assure Sentinel NGS assay are concordant in their results.

Learn More

Stay up to date with new information on Assure Sentinel testing by visiting our website or social media accounts:

<https://www.kailosgenetics.com/assure-sentinel>

<https://twitter.com/kailosgenetics>

<https://www.facebook.com/kailostest>

Contact Us

Email: Assure@kailosgenetics.com

Toll free: +1-866-833-6865