To: 5.1.2e [5.1.2e @rivm.nl]

From: 5.1.2e

Sent: Mon 3/30/2020 12:53:17 PM

Subject: FW: informatie Agilent Sureselect Coronavirus Panel

Received: Mon 3/30/2020 12:53:18 PM

Agilent Viral Enrichment Baits 5.1.2e AppNote 5994-0909EN 2.0.pdf

Hoi 5.1.2e

FYI

Groet, 5.1.2e

From: 5.1.2e @agilent.com < 5.1.2e @agilent.com>

Sent: Monday, March 30, 2020 10:49 AM To: 5.1.2e < 5.1.2e @rivm.nl>

Subject: FW: informatie Agilent Sureselect Coronavirus Panel

Beste 5.1.2e

Hopelijk gaat alles goed bij jullie en zijn jullie in goede gezondheid. Ik stuur u meer informatie omtrent een nieuw Agilent Sureselect Coronavirus panel. Deze wordt met name ingezet om virale spreiding en evolutie van het virus te onderzoeken. Indien dit je interesse gebied is kan volgende info interessant voor je zijn.

Dear,

The coronavirus outbreak has had huge impact on public life recently. With quick response from a number of companies, qPCR based pipelines have now been set up that allow for the reliable detection of the virus. The next challenge will be to track viral spread and evolution of the virus to help guide treatments in the future and see the impact of interventions. One of the best ways to do this is by whole genome sequencing of COVID-19 samples. Challenges such as cost and workflow requirements prevent the use in practice.

Efficient WGS Coronavirus sequencing

Today Agilent introduces a new workflow to process samples for whole genome analysis of the coronavirus. The workflow leverages Agilent's robust hybridization based target enrichment workflow and a newly developed coronavirus enrichment panel. The workflow allows efficient whole genome sequencing of the coronaviruses with strongly reduced human reads. Because Agilent SureSelect uses long 120nt RNA baits, small changes within the virus sequence will have minimal effect on hybridization efficiency. A previously released application note regarding the method has been attached to this email.

Technical specifications Agilent SureSelect Coronavirus panel

The coronavirus panel was designed in collaboration with Prof Judith Breuer from University College London. Through a long-lasting collaboration with Agilent she has previously published 23 different panels for different viruses and unculturable bacteria that are regularly used in clinical practice. The newly introduced coronavirus panel has been created by dense tiling of hybridization probes to 813 complete coronavirus genomes from the GISAID database. This includes 180 SARS-CoV-2 sequences. The final probe library contains 31.332 different biotinylated 120 nt RNA probes that allow for the enrichment of all coronaviruses including SARS-CoV-2.

Why Agilent?

- Agilent SureSelect is a robust NGS library prep and enrichment protocol that is widely used in clinical research and academics for targeted sequencing of DNA and RNA
- Agilent SureSelect is scalable and automatable. Existing knowledge and Agilent automation instruments available in the market can easily be leveraged to get up and running quickly
- Hybridization based sequencing method is more cost effective than metagenomic sequencing and has equivalent or better sensitivity than PCR based methods
- The Agilent coronavirus panel allows for whole genome enrichment of all coronaviruses, not just SARS-Cov-2.

If interested please let us know by responding to this email. We will be happy to discuss the possibilities for implementing the workflow in your lab.

Met een vriendelijke groet en blijf gezond

Best Regards

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Diagnostics & Genomic Group

Agilent Technologies Netherlands B.V.

T: +31

5.1.2e | M: +31 6

5.1.2e | www.agilent.com