# MassARRAY® SARS-CoV-2 Variant Panel (RUO)



# Low-Cost and High-Throughput SARS-CoV-2 Variant Surveillance

Laboratories require cost-effective, rapid solutions to track the key SARS-CoV-2 variants currently in circulation globally. While sequencing-based technologies are commonly used, they are highly complex, expensive and have a long turnaround time. The MassARRAY® SARS-CoV-2 Variant Panel from Agena Bioscience® enables laboratories to overcome these challenges with a high throughput, low-cost and rapid assay for the detection of 36 unique genetic markers and differentiation of key SARS-CoV-2 variants.

#### The MassARRAY® SARS-CoV-2 Variant Panel

- GET ACCURATE DETECTION Detect and differentiate 16 unique SARS-CoV-2 variants, including Omicron and Delta, from the Wuhan lineage of SARS-CoV-2.
- MAXIMIZE THROUGHPUT Process up to hundreds or thousands of samples on a single instrument in a single workday.
- **SIMPLIFY INTERPRETATION -** Clear identification of variants of concern without the need for extensive bioinformatics analysis.
- SAVE TIME & MONEY Low-cost reagents and automated results reporting save lab resources.



For Research Use Only. Not for use in diagnostic procedures.

### **ASSAY COMPONENTS**

The MassARRAY<sup>®</sup> SARS-CoV-2 Variant Panel is a two-well, qualitative research use assay containing one GAPDH assay that serves as an internal control for nucleic acid extraction, reverse transcription (RT), PCR, SAP, and extension steps; one assay probing the SARS-CoV-2 viral nucleocapsid (N) gene; and one assay for each of the 16 SARS-CoV-2 variants, targeting a total of 36 genetic markers:

B.1.1.529 (Omicron): L18F (WT), L452R (WT), P681H, K417N, T95I, T478K, S477N, E484KQ (D), H69\_V70del (D), N439K (D)
B.1.617 (Delta): L452R, E484Q, P681R
B.1.617.2 (Delta): T478K, T19R, P681R, L452R
B.1.1.7 (Alpha): P681H, N501Y, A570D, H69\_V70del, S982A, T716I, Y144del
B.1.351 (Beta): N501Y, D80A, D215G, K417N, E484K, A701V, L18F, L242\_L244del
P.1 (Gamma): N501Y, L18F, E484K, K417T
P.2: E484K + wildtype calls for L18, K417, A701V, Q677H

B.1.525 (Eta): E484K, H69\_V70del, Y144del, Q677H B.1.526 (lota): E484K, A701V, D253G, L5F, T95I, S477N B.1.526.1: D80G, L452R, Y144del B.1.427/B.1.429: L452R, S13I, W152C B.1.258: N439K, H69\_V70del Florida: K1191N, Q493K Cluster 5/Mink: I692V, Y453F, H69\_V70del, N501T D614G Broad USA: Q677P

(WT) = Wuhan.19.A sequence (D) = Dropout, i.e. specific loss of amplification

## ASSAY WORKFLOW

The combined RT-PCR reaction together with high-throughput processing on the MassARRAY System enables testing up to hundreds or thousands of samples per day.



RNA Extraction Manual or automated bead-based RNA extraction



RT-PCR/SAP/Extension Multiplex end-point RT-PCR followed by a single base extension reaction



Automated analyte transfer and data acquisition



Results Reporting

Simple, user-friendly reports

#### **ORDERING INFORMATION**

The assay panel sets are available in both 96 and 384 reaction formats to support varying sample throughput.

Catalog No.	ltem	# Samples	Chip Format
13340	MassARRAY SARS-CoV-2 Variant Panel Set v3 (RUO) (10x96)	480	96
13340F	MassARRAY SARS-CoV-2 Variant Panel Set v3 (RUO) – CPM (10x96)	480	CPM-96
13341	MassARRAY SARS-CoV-2 Variant Panel Set v3 (RUO) (10x384)	1920	384
13341D	MassARRAY SARS-CoV-2 Variant Panel Set v3 (RUO) – CPM (10x384)	1920	CPM-384
13342	MassARRAY SARS-CoV-2 Variant Panel Set v3 (RUO) (2x384)	384	384
13342D	MassARRAY SARS-CoV-2 Variant Panel Set v3 (RUO) – CPM (2x384)	384	CPM-384

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