Armored Controls have been utilized in FDA-approved assays for the last 20+ years and continue to serve as an important tool in the rapidly evolving space of molecular diagnostics.

In response to COVID-19, Asuragen has developed molecular diagnostic controls for multiple regions of the SARS-CoV-2 genome as well as conserved mutations in the spike protein prevalent in the B.1.1.7, B.1.35, P.1 and the Delta variant. Armored RNA Quant® controls allow for stable, reliable, and safe ways to rapidly test for the presence of Coronavirus and its variants. Each control encodes in vitro transcribed RNA encapsulated in a protective protein coat to create a virus-like particle resistant to nuclease degradation. This allows the products to be used as RNA extraction controls, process quality controls, or positive diagnostic reference controls. From feasibility to clinical use, these robust and versatile controls are beneficial across all sectors of the research and diagnostic spectrum.

**REDUCED COMPLEXITY**
- Available as standalone catalog item
- High-quality solution to monitor extraction and process efficiency
- Compatible with a wide range of RNA-based clinical assays
- Non-infectious, synthetic constructs simplify shipping and storage

**OPTIMIZED WORKFLOW**
- Deployable as extractable, exogenous internal positive control
- Tailored sequences specific to SARS-CoV-2 and RNase P
- Degradation resistant in majority of biological matrices
- Multiple volume and manufacturing options available
- Available as cGMP or development lot in a range of fill volumes

**QUALITY PERFORMANCE**
- Concentration determined using National Institute of Standards (NIST) traceable standard
- Highly standardized, quality controlled manufacturing ensures reliability and consistency between lots
- Manufactured in a cell-free system
Armored RNA Quant®

- Concentration: $1 \times 10^{11}$ copies/mL and can be customized
- Buffer Composition: TSM III (10 mM Tris, 100mM NaCl, 1 mM MgCl$_2$, 0.1% Gelatin, 0.3% Microcide III, pH 7.0)
- Storage at -15 to -30°C

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Product Description</th>
<th>Volume</th>
<th>Concentration</th>
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<tbody>
<tr>
<td>52151</td>
<td>Armored RNA Quant SARS-CoV-2</td>
<td>0.25mL</td>
<td>$1 \times 10^6$ copies/mL</td>
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<tr>
<td>52152</td>
<td>Armored RNA Quant RNase P</td>
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<td>Armored RNA Quant SARS-CoV-2 Panel</td>
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<td>52160</td>
<td>Armored RNA Quant SARS-CoV-2 SV2</td>
<td>0.25mL</td>
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</tbody>
</table>

SARS-CoV-2

- Targets the N1, N2 region of the CDC recommended Diagnostic Panel (CDC-006-00019).

SARS-CoV-2 Panel

- Targets the N1, N2 region of the CDC recommended Diagnostic Panel (CDC-006-00019).

SARS-CoV-2 SV2

ORDERING INFORMATION

For more information about Armored RNA Quant® SARS-CoV-2 Controls | aus.armored@bio-techne.com

Armored RNA Quant® is a technology developed jointly by Ambion, Inc. and Cenetron Diagnostics, LLC. US patents #5,677,124, #5,919,625, #6,399,262, #6,214,962, and #6,399,307. Armored RNA Quant® is a registered trademark of Ambion and Cenetron Diagnostics.