

# Armored RNA Quant® Internal Process Control\*

## Armored RNA Quant: The Gold Standard For Molecular Quality Control

Armored RNA® technology stabilizes and protects nucleic acids from nuclease degradation by packaging them in a protective protein coat. Armored Controls have been utilized in IVD-cleared assays for more than 20 years and continue to serve as an important tool in the rapidly evolving space of molecular diagnostics. For methods ranging from qPCR to NGS there is now a convenient and inexpensive way to monitor the performance of your assay with the Armored RNA Quant® Internal Process Control.

- Used as an onboard process control to monitor extraction through detection.
- Non-specific, 1,000 base pair IVT RNA (alien/non-homologous) sequence.
- Encapsulated in a coat of protein dimer armor which renders it resistant to degradation.
- Used as a spike-in to sample (e.g., urine, blood, CSF, plasma/liquid biopsy) to monitor the overall efficiency of your process.

## Reduced Complexity

- Incorporates a 1000bp, non-coding, non-specific alien sequence
- Simple, spike-in solution to monitor extraction and process efficiency
- Compatible with new and existing RNA-based clinical assays
- Non-infectious, synthetic constructs simplify shipping and storage
- Available as a standalone catalog item

## Optimized Workflow

- Deployable as extractable, exogenous internal positive control
- Non-competitive sequence will not interfere with amplification/detection of target(s)
- 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 Internal Process Control Product Details

- Encapsulated as non-infectious, nuclease-resistant, pseudo-viral particle.
- NIST traceability enables usage in standardization and reproducibility assessments.
- Concentration: Available up to  $1 \times 10^{11}$  cp/mL
- Buffer Composition: TSM III (10 mM Tris, 100 nM NaCl, 1 mM MgCl<sub>2</sub>, 0.1% Gelatin, 0.3% Microcide III, pH 7.0)
- Storage at -15 to -30°C

## Armored RNA Quant Internal Process Control Target Sequence (1,000 bp):

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GTACTGACGTAAAGTCACTATTTTTTCGTGCAACGTAC
G T C T C G A T G T A C A A C T G C T C T A T T A C G
G T T C A T T T T T T T T T G T A G G T T A C G C G G C C A G A T G A C T C
C A T C T T A T C C C C T T G A A A A C A T T C T T A T T T G T A C G C
C A T A G T G G C A T C G C G G T T G G A T A C A A T C G T A T T G G A C G
C A A G C G C G C T C T A C T C A G T T T A T A A G A C C G C C A A C
T A T T T T C G C A A G A T C A G T G T A T T T A C G C T G A C T C C A G T G
G T G A A A C T C C T A A G A T C T G T T T A G C T A T T G C G C C G T G C
G T T T A T C A A A T C G G G C T T C C C A A C A T T C A T T C T T A G A A G
G A A G C T C G A T A G T T C A G A G C T G C G G A A G G C
C C A A T T T C A T A T T A T G T A T G A G C C T G T C A A T A C C T G C A C
C C A C G A A C A C C A C A G T G A C T A G A G T A T G A G A G G T C G A C
G A T C T A C G G A T G G T G A T G A G C A C G G A G A T C T A A G C G T G
G A A G T G G C T A T A T A G A G C A G A T A T T A T A T G A C G T A C C A
G A G G A T C A C C T A C T A A A A G A C T T T T C G A G A A T C T A
C A C C T A C T A G C A A G G G T A G C C G A T T A G T G G A T C A T C T A
A G A C A T C A A G G C T C A A A C T A A T T T T A C C A T G G A C G C T G
C A T T T A C G C T T G C A C A T T T T A T G T T G G C A G C C T T T G C C G C
G G C A C A T A G C G A T A C C C G T A C C C G C T T T T C T T T A A G T T A
A T C G C C G A T G A T T G G C T C A A T A A T C G C C T C A C T T G T G C
G A T G A C T A G C C A G G C G T T T C C C G C G T T T C T A G A T A T T A T C
G C G C T T A T A T A G T A T A G A C G A G T A C C C T T T G T T G T T A T T G
C A G C A C C C A A C A G A A C T A A G T A A T C T T T A G G C T G C G G C
C G C T T A G G T G G C A G A A G A T T T G C T C G A T G T T C T C A A G T A
A A G G A C G T C G G G G A G T T G A C G G T T G G C A G G T A A C G T A T
G G A T C T T T A A T A T A T C T A G G C A A C A A G T A A G G G C C A T T
G A G C G C T T A T A T G C C G C A G T C T
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## References

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Armored RNA Quant\* is a technology developed jointly by Ambion, Inc. and Cenetron Diagnostics, LLC (US patents #5,677,124, #5,919,625, #5,939,262, #6,214,982, and #6,399,307). Armored RNA Quant\* is a registered trademark of Ambion and Cenetron Diagnostics.

\* For Research Use Only. Not For Use in Diagnostic Procedures.

## Ordering Information

| Product Description                            | Concentration           | Part Number | Volume |
|--|-------------------------|-------------|--------|
| Armored RNA Quant*<br>Internal Process Control | 2x10 <sup>6</sup> cp/mL | 49650       | 0.5mL  |

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