

WT-Ovation™ RNA Amplification System

imagine more | FROM LESS™

Amplify all mRNA species in a total RNA population across the entire transcriptome prior to real-time quantitative PCR

Interrogate *the entire transcriptome*

Enable *transcript profiling with as little as 5 ng of RNA*

Increase *sensitivity*

Amplifying and studying messenger RNA populations across the entire transcriptome without 3' bias is now a reality; enabling analysis of splice variants and degraded samples.

Sample size is no longer an experimental constraint. Interrogate 100's of genes with as little as 5 ng of input RNA. Conserve clinical and precious samples for additional experiments!

Amplification linearly increases the level of all mRNA species in the sample, including low abundance transcripts. Increased sensitivity of real-time quantitative PCR is obtained as a result of lower Ct values.



OVATION
SYSTEM

amplification

www.nugeninc.com

NuGEN Technologies, Inc.

WT-Ovation™ RNA Amplification System

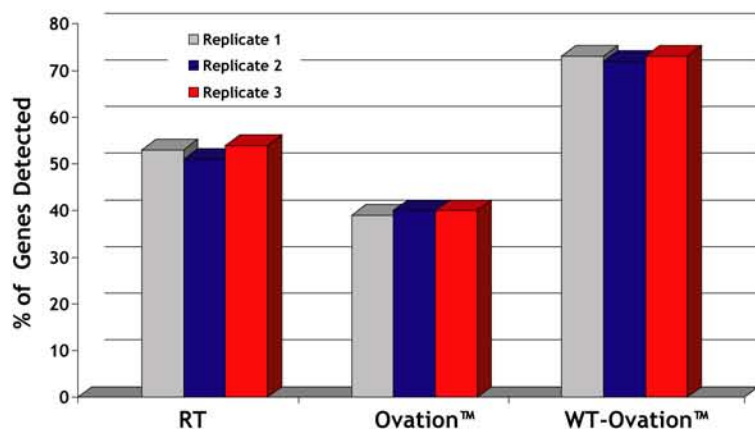
Take advantage of the superior speed, performance, and convenience of the WT-Ovation™ RNA Amplification System.

Distinctly different from other amplification approaches, the WT-Ovation™ RNA Amplification System employs NuGEN's proprietary Ribo-SPIA™ technology to achieve on average 1,500-fold linear amplification of mRNA. The rapid, 3.5 hour, single tube amplification process generates micrograms of QPCR-ready single stranded cDNA product from as little as 5 ng total RNA.



Analysis across the entire transcriptome is *finally* achievable.

Improved Gene Detection using the WT-Ovation™ RNA Amplification System



Detect and quantify more genes with WT-Ovation™

cDNA was prepared from Human Jurkat Cell Total RNA (Stratagene, cat.# 540107) for interrogation by quantitative real-time PCR. Unamplified cDNA was prepared in triplicate (RT) directly from 5 µg of total RNA with the SuperScript™ III First-Strand Synthesis System for RT-PCR using random hexamers according to the manufacturer's instructions (Invitrogen, cat. #18080-051). The Ovation™ and Whole Transcript Ovation™ (WT-Ovation™) RNA Amplification Systems were each used to linearly amplify cDNA in triplicate from 20 ng of total RNA. cDNA equivalents of 100 ng for each method were loaded per sample port as input into the TaqMan® Low Density Immune Profiling Arrays [LDA] (Applied Biosystems, part #4342510). Genes with RT-PCR Cts of 36 or lower were defined as detectable. Twenty percent more genes were detected on the LDA using WT-Ovation™ amplified cDNA than unamplified cDNA. The Ovation™ system detected the smallest number of genes due to the non-3'-biased design of the 91 TaqMan® Gene Expression Assays present on the LDA, many of which are too distant from the 3' poly-A tail of the message for the Ovation™ System cDNA to faithfully represent.

These results demonstrate that a significantly higher proportion of genes can be reliably detected and quantified using the WT-Ovation™ RNA Amplification System than can be detected using standard reverse transcriptase.

imagine more | FROM LESS™

WT-Ovation™ RNA Amplification System
Catalog No: 2210-24
Input: 5-50 ng total RNA
Yield: 1.5 - 4 µg cDNA
Reactions: 24 amplifications/kit

Technical Documents

WT-Ovation™ RNA Amplification System User Guide
WT-Ovation™ RNA Amplification System Quick Protocol
WT-Ovation™ RNA Amplification System Technical Reports

Contact Information

Headquarters (USA)

North America Sales Office:
Toll-free: 888-654-6544
Toll-free Fax: 888-296-6544
Email: custserv@nugeninc.com
Web: www.nugeninc.com

Israel Sales Office

ZOTAL
Biological & Instrumentation
Phone: +972-3-649-2444
Fax: +972-3-649-6664
Email: sales@zotal.co.il
Web: www.zotal.co.il

Europe Sales Office:

Phone: +31(0)13 5780215
Fax: +31(0)13 5780216
Email: europe@nugeninc.com

Asia Sales Office

Phone: +81-3-5510-2313
Fax: +81-3-5510-2312
Email: info@medibic.com
Web: www.medibic.com



OVATION
SYSTEM

amplification

www.nugeninc.com

NuGEN Technologies, Inc.