

# Gene Expression & qPCR

# AzuraQuant™ cDNA Synthesis Kit

The AzuraQuant™ cDNA Synthesis Kit provides a rapid and sensitive method for generating high quality, qPCR-ready first-strand cDNA for use in downstream real-time PCR. The AzuraQuant™ cDNA Synthesis Kit exhibits highly reproducible, unbiased synthesis and representation of 5' and 3' mRNA ends.

The kit was developed to provide consistent linearity across a wide range of input RNA, revealing accurate relative cDNA representation, regardless of gene abundance. HighTherm™ reverse transcriptase which provides exceptional thermostability is blended with a potent RNase inhibitor to ensure high integrity of Total RNA starting material.

The AzuraQuant™ cDNA Synthesis Kit is supplied with a high-performance 5x buffer system including an optimized ratio of random hexamer primers and anchored oligo (dT) primers which delivers unbiased, efficient and sensitive cDNA synthesis. The AzuraQuant™ cDNA Synthesis Kit delivers both highly efficient first-strand synthesis and higher cDNA yields, leading to enhanced reproducibility and data accuracy. The AzuraQuant™ cDNA Synthesis Kit provides the ideal chemistry for success with limited starting material, such as tissue biopsies.

## Applications

- 2-step RT-qPCR
- 2-step RT-PCR

## Unbiased, sensitive cDNA synthesis

- Complete 5' to 3' RNA sequence representation from 4pg to 2µg Total RNA or mRNA

## Reproducible

- HighTherm™ reverse transcriptase coupled with an optimized 5x Buffer system generates consistent, high-yield qPCR-ready cDNA

## Broad dynamic range

- Optimized for dilute and low-copy input RNA

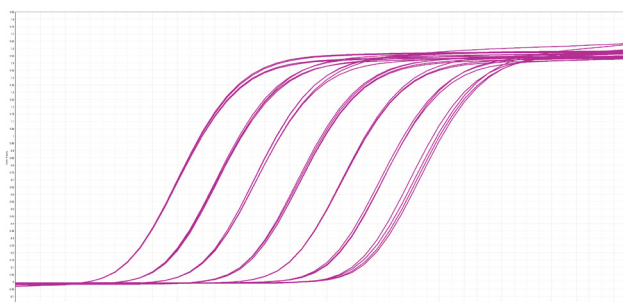


Fig 1. Broad Dynamic Range with AzuraQuant™ cDNA Synthesis Kit.

- A 10 fold serial dilution of mouse total RNA was used for seven cDNA synthesis reactions (with starting material ranging from 2µg to 2pg Total RNA). Subsequently, each cDNA synthesis reaction was used as a template for qPCR in which a 70bp fragment was amplified (mouse RN18S gene).

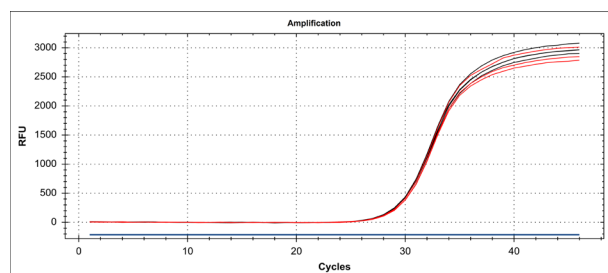


Fig 2. Unbiased cDNA synthesis of 5' and 3' mRNA ends with AzuraQuant™ cDNA Synthesis Kit.

- AzuraQuant™ cDNA Synthesis Kit was used to synthesize cDNA from mouse liver total RNA. 2 primer pairs were designed against the 5' (red traces) and the 3' (black traces) ends of a 4kb mouse transcript. In the subsequent qPCR, the amplification traces overlap indicating unbiased reverse transcription spanning the entire sequence.

The Kit is supplied in a convenient, two tube format comprised of a 5x Buffer and 20x HighTherm™ reverse transcriptase blended with RNase inhibitor.

Product	Pack Size	Catalog No.	Price
AzuraQuant™ cDNA Synthesis Kit	25 Reactions	AZ-1995	\$85
AzuraQuant™ cDNA Synthesis Kit	100 Reactions	AZ-1996	\$295