

qSTAR qPCR microRNA detection System

Introduction

OriGene's unique qPCR microRNA detection system not only offers researchers a fast and simple method for profiling miRNA expression levels, but also provides means to quantify the results down to absolute copy number of an experiment.

Key Components of the Detection System:

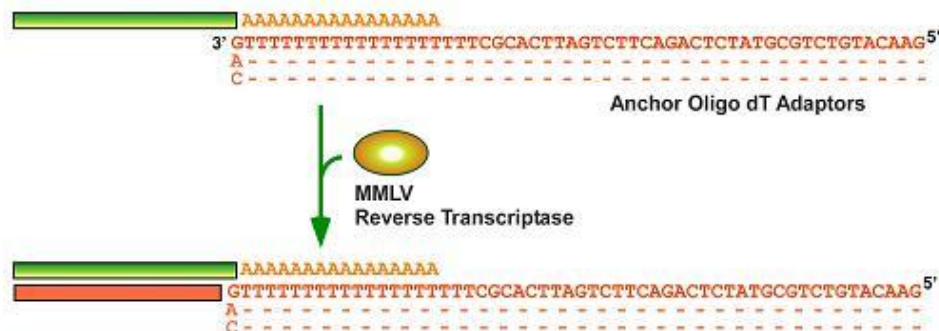
- qSTAR miRNA first-strand cDNA synthesis kit
- qSTAR miRNA primer pairs
- qSTAR miRNA primer panels
- qSTAR miRNA copy number standards

Schematic Diagram of MicroRNA Detection System

Step I: PolyA Tailing



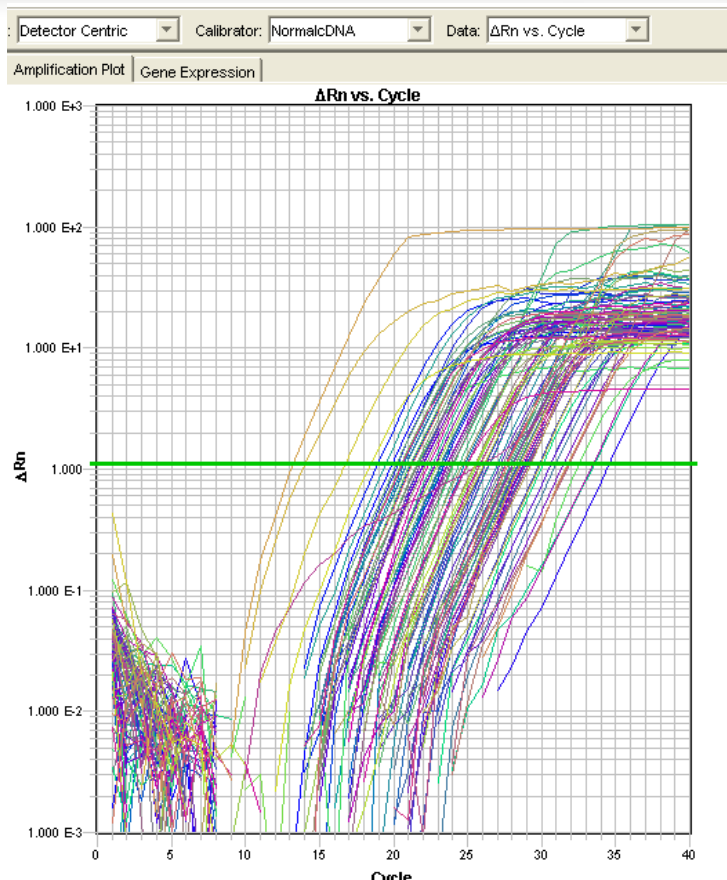
Step II: cDNA Synthesis



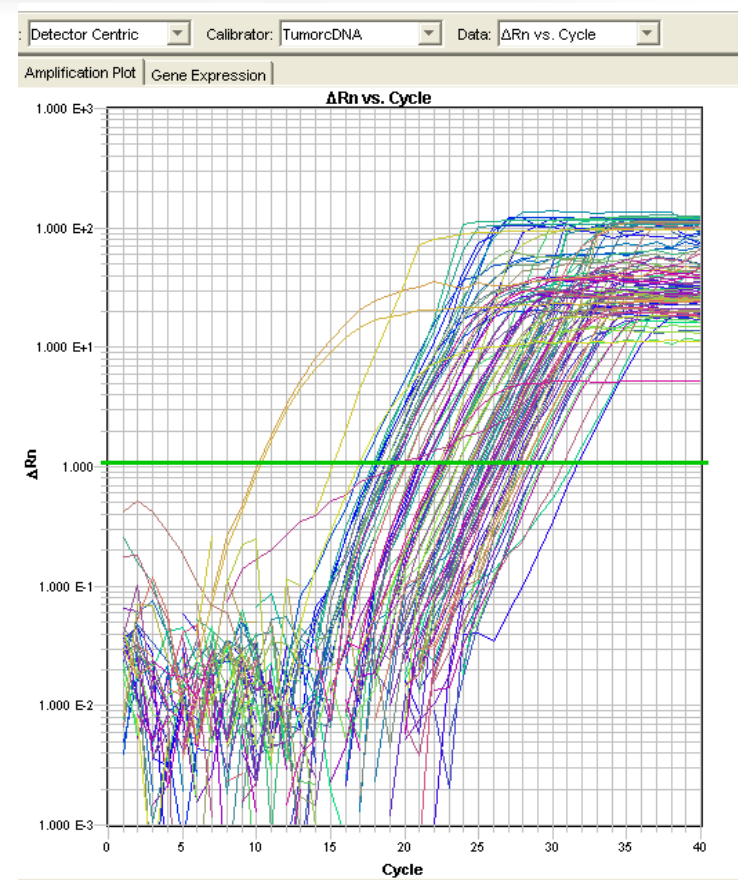
Step III: qPCR with miRNA Specific Primer



miRNA detection in Ovarian Cancer



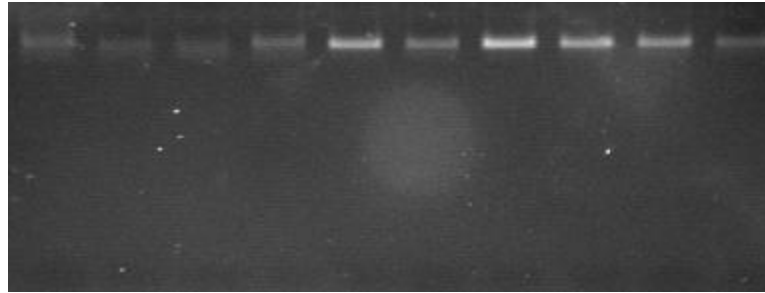
Normal cDNA



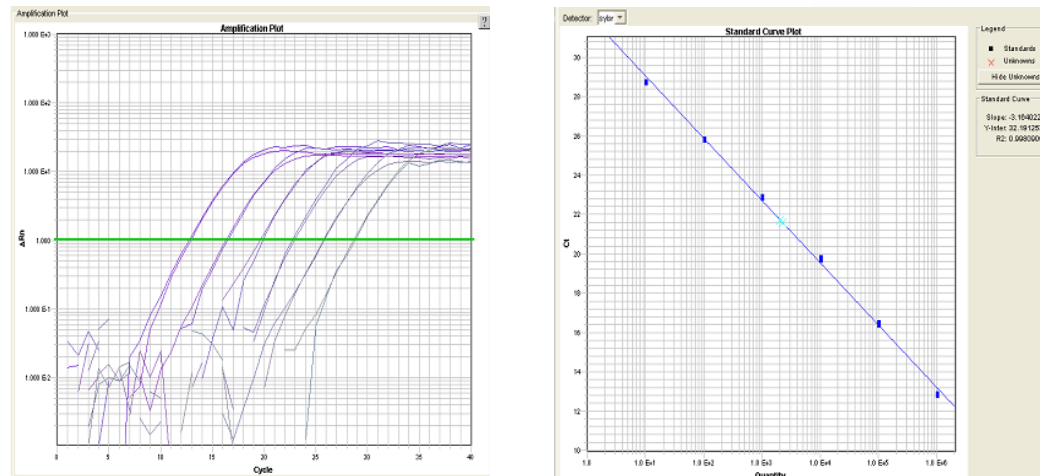
Ovarian Cancer cDNA

All human miRNA primers were profiled in a normal and an ovarian cancer tissue. qPCR was conducted using SYBR Green I method and run on ABI 7900HT. Over 90% of the miRNAs were successfully identified in normal sample.

miRNA template standards



miRNA copy number standards were amplified from RNA samples using PCR and the fragments were purified and cloned into OriGene's vector



Copy number standards were used to determine the absolute transcript copy number of an experiment sample using the standard curve method