qSTAR Gene Expression Products
Validation Data
qSTAR SYBR Green Master Mix

qPCR reactions using qSTAR SYBR Master Mix or a leading brand SYBR master mix were performed simultaneously on an ABI7900HT. The amplification plot indicates that qSTAR master mix generates smaller Ct values than those obtained by a leading brand.
1. 42 “low expressing” genes were analyzed with OriGene qSTAR SYBR Master Mix and with ABI SYBR Master Mix.

2. 12 genes were detected with OriGene SYBR Master Mix, but were “undetermined” with ABI SYBR Master Mix.

3. For the other 30 genes, average Ct value with OriGene Master Mix is 4.56 lower than average Ct value with ABI Master Mix.
384 qSTAR qPCR Primer Pairs were tested in SYBR qPCR and dissociation test. A mixture of breast cancer cDNAs were used as templates. The qPCR was run on ABI 7900HT qPCR machine. From the results, over 90% of the primer pairs generated a measurable expression, and less than 8% of primers have primer dimer formation. Primer pairs failed in primer dimer test are re-designed and tested till a satisfactory result is obtained.
The qPCR primer and copy number standard for human cathepsin S (NM_004079) was used to determine the copy number of the transcript in a breast cancer RNA sample. The SYBR qPCR was performed on ABI 7900HT and analyzed using the machine software. Based on standard curve from the copy number standard, the unknown sample was determined to contain 278 copy/μl of human cathepsin S.
The qPCR primer and copy number standard for human SDHA (NM_004168) was used to determine the copy number of the transcript in a breast cancer RNA sample. The SYBR qPCR was performed on ABI 7900HT and analyzed using the machine software.
The qPCR primer and copy number standard for human ASNA1 (NM_004307) was used to determine the copy number of the transcript in a breast cancer RNA sample. The SYBR qPCR was performed on ABI 7900HT and analyzed using the machine software.
Breast cancer qPCR Primer Panel I was used to profile a normal cDNA and a cancer cDNA in two separate experiments. The expression of each gene in the panel was compared and plotted by fold change.

Breast Cancer Panel I
Normal Tissue versus Cancer Tissue (her2 IHC positive)

Normal ID: RN0000382D CU0000005301
Cancer ID: RN0000320A CU0000011737
Breast Cancer Panel I—Reproducibility Test

Breast cancer qPCR primer panel I was used to profile a cancer cDNA in two separate and identical experiments. The two sets of Ct values are plotted.