Overcoming the Limits of qPCR:

Four ways that Canopy Bioscience's NanoString Service Improves RNA Expression Analysis

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The NanoString technology is quickly eclipsing quantitative PCR. And the NanoString service offering from Canopy Biosciences makes it incredibly simple for you to quantitatively analyze the expression level of hundreds of genes from a single sample with a single run.

Here are four reasons you should be using Canopy's NanoString service instead of qPCR.

1. So Many More Genes.

After you have added a certain compound to your cells, or performed gene editing, or created that genetically engineered mouse, you are going to need to assess changes on a molecular level. You can probably easily validate 5 - 10 top hits by qPCR. But the more information you can generate in a short period of time, the more you understand about your molecular system. With Canopy's NanoString service you can validate the expression levels of up to 800 genes at a single time. This is not validation of a gene or validation of a biomarker – this is validation across an entire signaling pathway.

Entire signaling pathways elucidated overnight

2. No Amplification Needed.

With qPCR or RNAseq you will have to amplify your template in order to run your experiment. Target amplification takes time, costs money, and most importantly, leads to bias. Because target amplification inherently biases your results, the best way you can compensate for this is to run your samples in duplicate or triplicate. But analysis with a NanoString service is direct – no template amplification. Just remember:

No template amplification = more consistent results = fewer replicates = less expense

3. FFPE Samples Unlocked.

Quantitative PCR, as already noted, requires amplification of your template. Not only is that time consuming, expensive, and leads to bias but it is also completely impossible for some samples. Formalin fixed paraffin embedded samples undergo considerable RNA degradation making them unsuitable for most expression analysis. But not anymore – since Canopy's NanoString service does not require template amplification, all your archived biobanked samples are now suitable for deep expression analysis. And with only a few 10-micron curls needed, you wont waste a lot of your precious sample.

Works on FFPE samples = expression analysis on your archived material

4. So Much Faster.

It is not hard to imagine that you are going to want to assess the expression levels of dozens of genes in your sample. Maybe for validation of a microarray or RNAseq experiment. Maybe you are validating biomarkers from clinical samples. How many months would it take you to work out the conditions for 100 genes by qPCR? Canopy Biosciences will deliver expression level data to you on up to 800 genes within two weeks of receiving your samples. This isn't just "faster" – this is the type of disruptive technology that changes how you do science.

Faster expression analysis than ever before possible

Canopy Biosciences makes it easy to switch from qPCR to the more advanced NanoString technology. Choose your pre-designed gene panel or send us your list of genes for a custom panel. Send us your samples and let us know if you want our assistance for data analysis. You ship your samples to us and we send you data within two weeks. It's as simple as that.

Please email us if you are interested in ordering, would like to see some publications, or have any questions.
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