Differentiation

The MyGo Pro has features which enable positive differentiation in nearly every aspect of qPCR system performance.

The innovative Full Spectrum Optics provide 120 channels of wavelength dependent optical data from every well at every optical data acquisition. These optics, combined with matrix deconvolution methods provided in the system software, enable the simultaneous analysis of 7 different targets in a single reaction each monitored with a different colour of fluorescent label. No other qPCR system offers this number of optical channels nor has demonstrated this level of multiplexing. For users seeking to perform the simultaneous analysis of multiple targets this is a compelling feature. Panel-based testing of infectious diseases is a rapidly growing segment of the molecular diagnostics market. Multiplex performance will favour adoption of the MyGo Pro by customers performing molecular diagnostics of infectious diseases.

The MyGo Pro comes pre-calibrated for common fluorescent labels, however in addition the MyGo Pro software enables users to use any dye with an emission maximum between 510nm and 750nm. This flexibility is made possible by the full spectral data, matrix deconvolution and the software. No other qPCR system provides the user with this level of flexibility. For researchers and diagnostics companies working with non-standard fluorescent labels for scientific or commercial reasons, this is an attractive feature.

The MyGo Pro enables the user to use familiar 0.2ml tubes or 8-well strips. This provides a significant ease of use advantage over systems which require the user to use unfamiliar proprietary formats. Such proprietary formats are often incompatible with standard laboratory hardware such as liquid handling systems and centrifuges.

For research users performing HRM based analysis of genetic variants, the combination of thermal control, optical data quality and HRM data analysis of the MyGo Pro system provide compelling functionality. The system has demonstrated the ability to discriminate all classes of SNP, including Class 4 SNPs via HRM. Many competitor systems are either incapable of performing HRM, or limited to the analysis of the easier Class 1 and 2 SNPs. The MyGo Pro system is also provided with easy-to-use software which provides for automatic analysis of complex HRM data, making this powerful technique more accessible to non-experts and decreasing operator-dependent variability in data analysis.

Flexibility in the choice of reaction volume is an important feature for diagnostic and applied markets. In order to provide maximum sensitivity it is sometimes necessary to analyse relatively large volumes of purified nucleic acid. The MyGo Pro enables the user to run reactions up to 100ul whilst some inferior systems limit the user to smaller reaction volumes such as 25ul or 50ul. For diagnostics and applied markets this is an important feature.

With heating rates of 5ºC per second and cooling rates of 4ºC per second the MyGo Pro is one of the faster systems on the market. No other system provides these ramp rates and convenient-to-use disposables. The system has demonstrated excellent quantitative precision and speed with 45 cycles of PCR completed within 33 minutes. Typical qPCR systems take much longer than this to deliver results, and for users who want results fast this is a useful feature.

We have tested 8 different competitor systems including models from the most respected brands, ABI and Roche. The MyGo Pro has demonstrated intra-run and inter-run analytical precision for DNA quantification and melting point analysis superior to any other system that we have tested. Given that qPCR systems are analytical instruments, the fact that the MyGo Pro offers the highest level of analytical precision is an important feature. Researchers can now address biological phenomena with subtle effects on gene expression. Diagnostic companies can boost sales by claiming increased precision for their assays, which is a key performance characteristic for quantitative tests.

The MyGo Pro supports the widest range of assay formats and data analysis methods of any qPCR system. For life science researchers this is an important feature because they need the ability to replicate analytical methods used by other researchers, and those researchers could have used any of a broad range of assays. In addition the researcher does not know in advance what direction his research will take, and needs a qPCR system capable of adapting to his research needs. In practice this means a system that supports a broad range of analytical methods, such as the MyGo Pro.

The MyGo Pro software does not require a dedicated computer, unlike some competitor instruments, and can be installed on Mac OS X, Windows and Linux operating systems. This means that users do not need to find the space or money for an additional computer to run the system, and they can run the operating system that they are familiar with. In addition the MyGo Pro software enables the user to control multiple instruments and simultaneously analyse data from one computer. No other qPCR system offers these benefits to the user.

With an operating noise level of less than 40dB the MyGo Pro is almost silent, unlike many competitor instruments which are noisy. In a lab this feature makes the MyGo Pro an extremely friendly bench mate for the researcher or lab technician. In addition the MyGo Pro has the smallest footprint of any qPCR system. These features make it easy to fit the MyGo Pro into the lab and easy for the user to stay in the lab!

In addition, for the environmentally conscious purchaser the MyGo Pro offers the benefit of consuming only 170W of power, lower than any other system on the market.