

deltaTITER

Baculovirus Analysis

One hour reliable titration

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Baculovirus Analysis

A new approach to analysing baculovirus, that will free researchers from the constraints of time-intensive traditional plaque analysis and other methods.

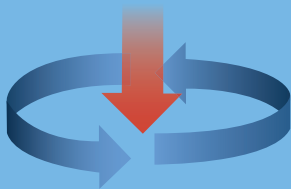
deltaTITER allows researchers to accurately quantify the amount of baculovirus in a sample in as little as one hour. The method is kit-based, automated and simple to use. deltaTITER uses a proprietary buffer system that utilises deltaDOT's state-of-the art HPCE technology. The results show excellent reproducibility of 6% relative standard deviation.

In R&D, scale-up and production phases, deltaTITER gives an excellent return on investment by drastically reducing cycle times. deltaTITER has been developed in collaboration with the pharmaceutical industry, to ensure that it meets your needs.

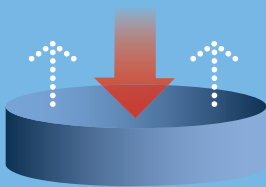
Baculovirus kit workflow - easy 3 step process

- Step by step instructions lead you through analysis
- All buffers and filters supplied

1. Load sample & buffer into filter & spin



2. Collect, add buffer and aspirate



3. Load into machine and run automated script



GET RESULTS

Benefits

- **Fast** – results in 1 hour
- **Accurate** – relative standard deviation of ~ 6%
- **Innovative** – proven analytical separation technology
- **Time-saving** – significant reduction in cycle time
- **Simple** – automated and kit-based
- **Reproducible** – from titration to titration
- **Universal** – across R&D, scale-up and production

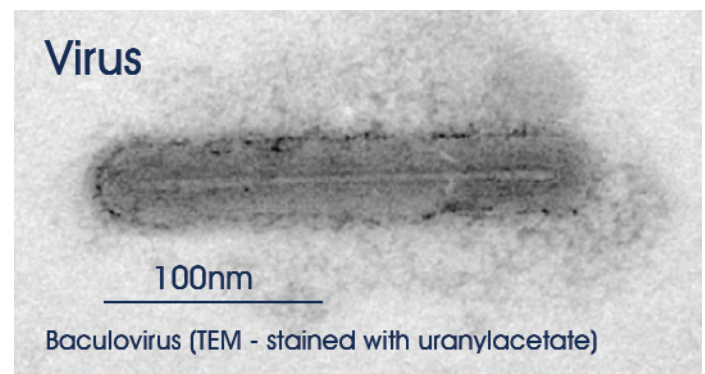
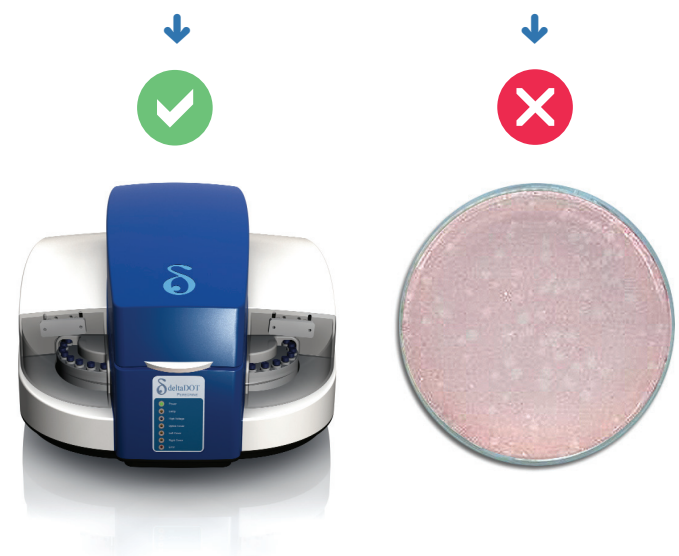


Image: www.mardre.com/.../tem/samples/bio/virus/bv2.jpg



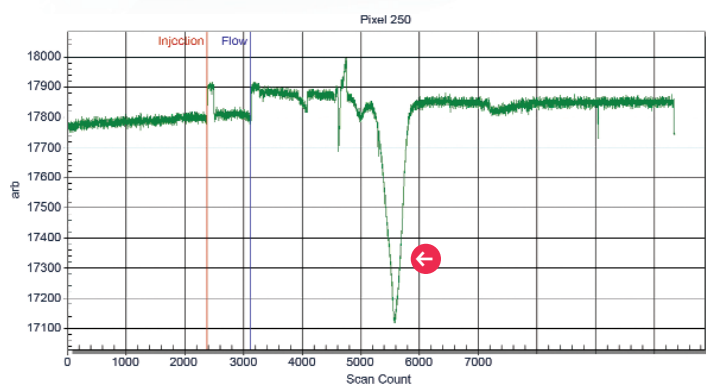


Figure 1: Ease of baculovirus quantification from single peak

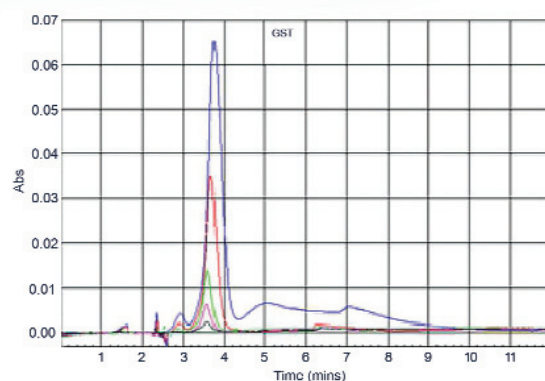


Figure 4: Dilution series on stock 6.7×10^8 pfu/ml. 1:2, 1:5, 1:10, 1:100s

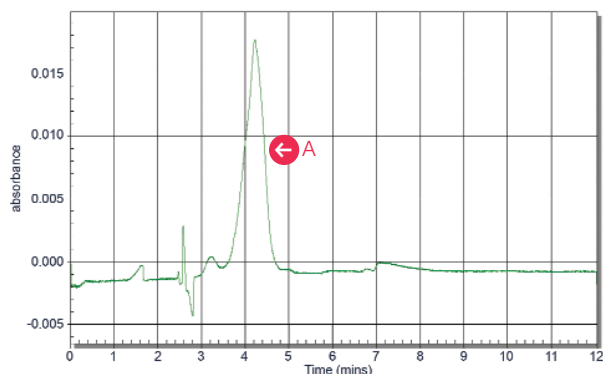


Figure 2: A. Increased signal to noise using GST processing from a multipixel detector.

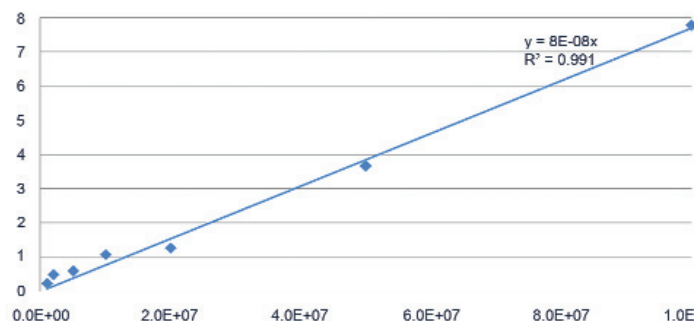


Figure 5: Excellent linearity is shown calibration curve in a concentration range between 1.2×10^6 and 1.0×10^8 pfu/ml

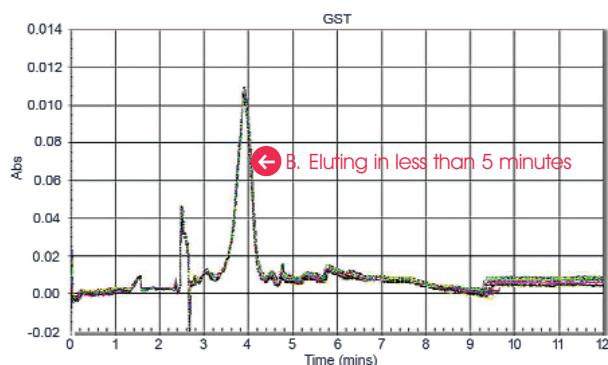


Figure 3: Reproducibility %RSD <6. Plaque assay reproducibility ~%RSD 50. 15 runs overlaid

Experimental results in collaboration with Biological Reagents and Assay Development, GlaxoSmithKline Research & Development, Harlow UK.

*One hour
reliable titration*

www.deltatiter.com

"The new deltaTITER kit, used in combination with the Peregrine system, has the potential to dramatically speed up the process of generating proteins using the baculovirus expression system by reducing the time to acquire a virus titer from 4-5 days to 1 hour. Initial experiments look very promising and we look forward to eliminating the need for plaque assays altogether."

Dr David McMillan

Senior Group Leader - protein production

UCB



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deltaDOT (<http://www.deltadot.com>) is developing and commercialising innovative enabling technologies and products in the bioscience arena. The company is focused on applying its Label Free Intrinsic Imaging technology to drug discovery.

deltaDOT was founded in 2000 and is a spin out from the Imperial College London, UK. It is focused on the harnessing of cutting-edge particle physics technology and its application to the needs of biomolecular separation, including proteins, DNA and RNA analysis. The company has a strong proprietary position and extensive expertise in instrumentation, microfluidics, automation, computing and analysis which will contribute to improvements in knowledge, profitability and process time throughout drug discovery and general life sciences research.