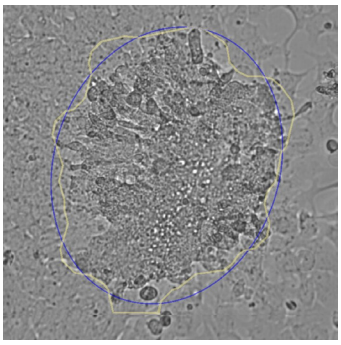
Viral Infectivity

GENERAL PURPOSE

The Viral Infectivity image analysis is used to determine morphological changes in a cell layer e.g. upon a virus infection. This focus forming assay (FFA) is a variation of the viral plaque assay. Instead of detecting plaque formation after virus-induced cell lysis or by immunological assays, this assay detects infected host cells and infectious virus particles before a plaque is formed. Some viruses with little or no cytopathic effect can be robustly quantified using just an immobilizing layer and high speed brightfield imaging, no staining is required.

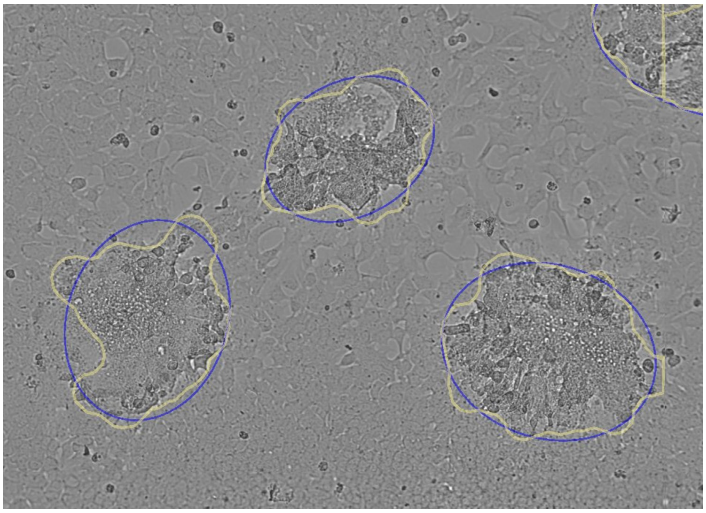


RESULT TABLE

Cell Area	Sum of the infected cell area in mm^2 per well
Cell Area Count	Number of detected cell areas per well
Cell Confluence	Percentage of infected cell area in the evaluated area
Infectious Titer	Number of infective particles per milliliter [PFU/mL]

EXAMPLE

For this example different cell monolayer samples were infected with a serial dilution of the virus of interest. After incubating the samples, the host cells showed clusters of infected cells, which could be visualized using brightfield imaging in 10x magnification. The detected changed cell area is marked light yellow, the resulting cluster blue.



SYNENTEC GmbH
Otto-Hahn-Str. 9A
25337 Elmshorn/Germany
Phone. +49 (0) 4121 46311-0
Email. appsupport@synentec.com

www.synentec.com