AUTOMATIC CALCULATION OF HELA CELL CULTURE CONFLUENCY

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/ CONTEXT

Cell confluence is a key parameter for all cell biologists as it is the beginning of all other cell culture experiment such as transfection, cell-based assays and cell culture quality control.
To obtain the maximum efficiency of transfection and avoid using expensive reagents for nothing, the cell confluence needs to be calculated with accuracy.
Today, the majority of cell biologists estimate the cell confluence in culture flasks in a subjective way, looking at the amount of space covered by cells.
Protocols using hemacytometers or specific dying (Trypan blue) can be used but it requires an extra step.
InCellis® from Bertin Technologies is used to observe the cells and calculate the cell confluence directly on the bench thanks to the specific and dedicated application "Cell Confluence".

/ MATERIALS

- InCellis® Cell Imager for Brightfield, Phase contrast and Fluorescent applications 004393-003-R00001-A
- InCellis® - 20X FL/Fh LWD objective: for petri dish, flask
- HeLa Cell Line (supplied by Team MDVA)

/ PROTOCOL

HeLa Cell line was plated and then incubated at 37°C.
After incubation, InCellis® has been used to control cell culture confluence every 24h.
An image of the cell culture was taken with InCellis® in phase contrast on day 1, day 2 and day 3 to check the confluence.
InCellis® embedded application allows the calculation of a 58% confluence, directly on the bench.
The percentage of confluence is the expected result to continue the experiment.

/ CONCLUSION

InCellis® allows to easily control the confluence of any living cell line on the bench without compromising the cell culture and the experiment.
InCellis® Smart Cell Imaging System provides a useful application to automatically calculate the confluence in a few seconds. It ensures a rapid and efficient quality control of the viability of your cell line before use in transfection, cell-based assays or any other cellular analysis.
"...InCellis® gives us the exact moment to start our cell line assays with the best quality of image..." D. Muriaux, Team MDVA

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