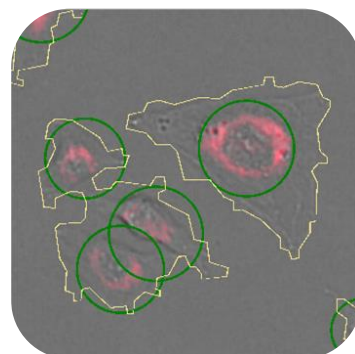


## Cell Confluence (Dots 1F)

### General Purpose

The Cell Confluence (Dots 1F) analysis algorithm can be used in an end point assay or in live cell imaging, where a confluent cell layer is analyzed in a brightfield image and one other events in a fluorescence image. These additional events (e.g. marked cell defects due to toxicity or detected CD-marker) are counted, if they occur, and the results are calculated with respect to the cell confluence area.



Short Note  
SN-B1-30-XV-02

### Result Table

• <b>Fluo Objects on BF Area / BF Area</b>	<i>Number of cell areas in the fluorescence image with respect to the detected cell area in the brightfield image</i>
• <b>Cell Area BF</b>	<i>Area covered with cells in the brightfield image</i>
• <b>Cell Confluence BF</b>	<i>Percentage ratio of the cell area detected in the brightfield image with respect on the whole evaluated area</i>
• <b>Cell Area Count BF</b>	<i>Number of isolated cell areas in the brightfield image</i>
• <b>Cell Area Fluo</b>	<i>Area covered with cells or sub parts of cells in the fluorescence image</i>
• <b>Cell Area Count Fluo</b>	<i>Number of isolated cell areas in the fluorescence image</i>
• <b>Fluo Objects on BF Area</b>	<i>Number of distinct cell areas in the fluorescence image that overlap cell areas in the brightfield image</i>
• <b>Avg Fluorescence Intensity BC</b>	<i>Average fluorescence intensity of all detected cell areas in the fluorescence image</i>
• <b>Sum of the Size weighted Fluorescence Intensity BC</b>	<i>(intermediate result)</i>
• <b>Process Duration</b>	<i>Duration of image analysis [ms]</i>
• <b>Processed Area</b>	<i>Percentage ratio of Evaluated Area on entire well area</i>
• <b>Evaluated Area</b>	<i>Total evaluated area</i>

## Example

SiRNA detection (green marked events in the overlaid red fluorescence image) in a viable confluent cell layer (brightfield image)

