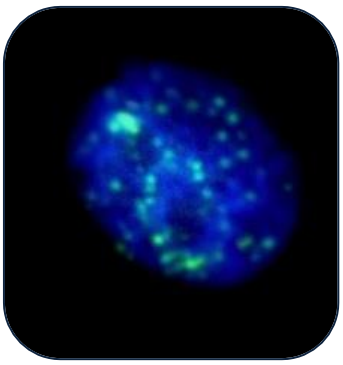
Nuclei Real Dot Count (1F)



Short Note
SN-F2-25-XV-03

General Purpose

The Nuclei Real Dot Count analysis algorithm is to be used in an end point assay, where cell nuclei are counted in a first fluorescence image (based e.g. on DAPI staining) and further stained sub structures (e.g. DNA string breaks with γH2AX-staining) in a second fluorescence image. The stained sub structures are counted and analyzed on each cell nucleus area and their number and average intensities are stored as additional cell nuclei attributes.

Result Table

- ***Dot Count*** *Number of recognized sub structures*
- ***Nuclei Count*** *Number of recognized cell nuclei*
- ***Nuclei Dot positive*** *Number of cell nuclei, that own at least the desired number of sub structures („Dots“)*
- ***Nuclei Dot positive percent*** *Percentage ratio of Nuclei Dot positive counts with respect to the Nuclei Count*
- ***Cell Area Count Fluo 1*** *Number of recognized sub structures in the first addiationa fluorescence image*
- ***Avg Nucleus Fluorescence Intensity BC*** *Average fluorescence intensity of a cell nucleus over background level*
- ***Avg Fluo CH1 Intensity BC*** *Average fluorescence intensity of the cell sub structures in the first additional fluorescence image over background level*
- ***Avg Nucleus Size*** *Average Size of a cell nucleus*
- ***Sum of Nuclei Sizes*** *Total area of all recognized cell nuclei*
- ***Sum of the Nuclei Fluorescence Intensities BC*** *(intermediate result)*
- ***Sum of Fluo CH1 Intensity BC*** *(intermediate result)*
- ***Process Duration*** *Duration of image analysis [ms]*
- ***Processed Area*** *Percentage ratio of Evaluated Area on entire well area*
- ***Evaluated Area*** *Total evaluated area*

Example

Two labeled DAPI stained cell nuclei in a γH2AX assay: One with some identified double DNA string breaks (green labeled nucleus) and one without (red labeled nucleus).