SYNENTEC

Nuclei Real Dot Count (2F)

GENERAL PURPOSE

The Nuclei Real Dot Count (2F) 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 in combination with mitosis marker or telomere staining) in two further fluorescence images. 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.
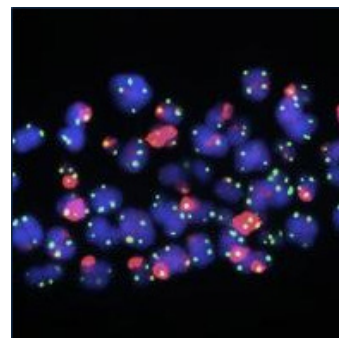
RESULT TABLE

Nuclei Count	Number of recognized cell nuclei
Nuclei Dot F1 positive	Number of cell nuclei, that own at least the desired number of sub structures („Dots") in the first additional fluorescence image
Nuclei Dot F2 positive	Number of cell nuclei, that own at least the desired number of sub structures („Dots") in the second additional fluorescence image
Nuclei Dot F1 positive percent	Percentage ratio of Nuclei Dot F1 positive counts with respect to the Nuclei Count
Nuclei Dot F2 positive percent	Percentage ratio of Nuclei Dot F2 positive counts with respect to the Nuclei Count
Cell Area Count Fluo 1	Number of recognized sub structures in the first addiationa fluorescence image
Cell Area Count Fluo 2	Number of recognized sub structures in the second 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 Fluo CH2 Intensity BC	Average fluorescence intensity of the cell sub structures in the second 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