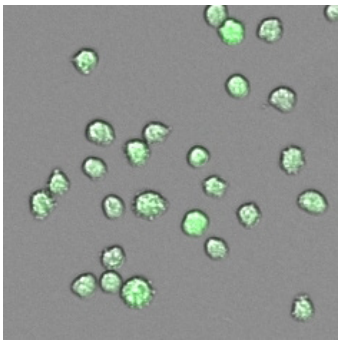
Suspension Cell Count 1F

GENERAL PURPOSE

The Suspension Cell Count (1F) analysis algorithm operates with a brightfield and one fluorescence channel. The image analysis counts all cells in the brightfield image and searches in a second step for a fluorescence signal in the area of the detected cells. It can be used as an endpoint determination e.g. with a viable (e.g. Calcein-AM) or dead (e.g Propidium Iodide) cell marker to check the culture condition. Furthermore determination of transfection efficiency with marker-co-transfection is another application.



RESULT TABLE

TC-BF	Number of detected cells in the brightfield channel per well
TC-1F	Number of detected cells in the fluorescence channel per well
CD	Cell density, number of cells per milliliter
CD-1F	Cell density of the cells detected in the fluorescence channel
1F/BF	Percentage of fluorescent cells per well
Avg Cell Size	Average size of all detected cells in µm² per well
Avg Fluo CH1 Intensity BC	Average fluorescence intensity over background per well
Dilution	Dilution factor used to prepare the sample, entered in the "Prepare" tab
Volume	Used volume per well in µL, entered in the "Prepare" tab
Sample Volume	Calculated "undiluted" volume of the sample in µL per well

EXAMPLE

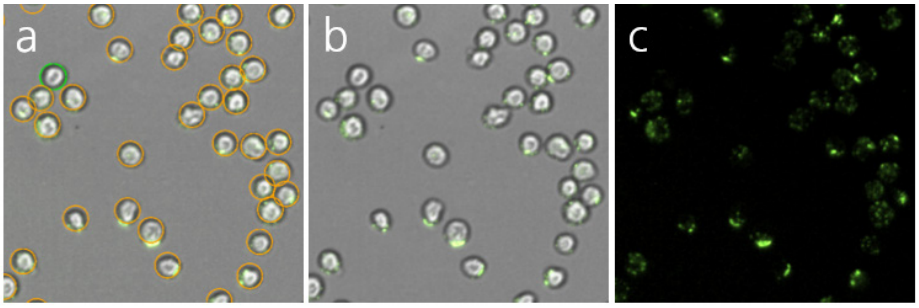
This examples show suspension cells with a green fluorescent CD10 marker.

Marked green:

Detected in brightfield only

Marked orange:

Detected in BF AND fluorescence channel



a) Overlay of brightfield and fluorescence channel with image analysis. b) Overlay of brightfield and fluorescence channel. c) Fluorescence channel (FITC-labeled CD10-antibody).

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