

# NucleoCounter®

Fast, precise and objective counting and viability determination of mammalian cells



- Easy operation
- 30 sec. analysis time
- Calibration free
- No cleaning
- Maintenance free
- Portable

## Principle:

The NucleoCounter from ChemoMetec A/S is an integrated fluorescence microscope designed to detect signals from the fluorescent dye, propidium iodide (PI) bound to cell nuclei. Results from the NucleoCounter represent either total or non-viable cell concentration, depending on the sample preparation.



## As simple as 1 - 2 - 3

1



### Sample Preparation

Mix a representative cell sample with equal volume reagent A-100 (lysis/disaggregation buffer) and reagent B (stabilizing buffer)

2



### Sampling

Load the NucleoCassette with the lysate solution by immersing the tip of the cassette into the solution and pressing the piston.

3



### Analysis

Place the NucleoCassette in the instrument and press the "Run" button. After 30 seconds the cell count is presented on the instrument display. Optionally data is transferred to an external PC using USB connection or printed on an external printer.

## NucleoCassette™

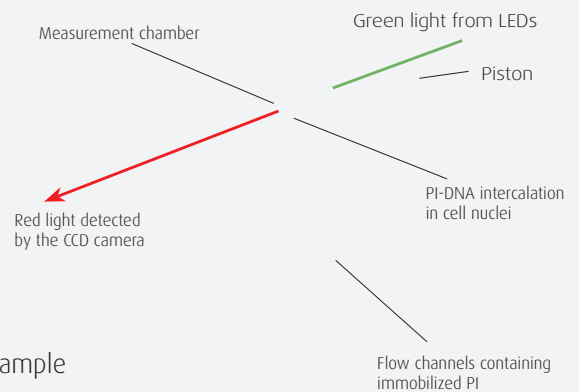
PI is immobilized in the interior of the disposable NucleoCassette. When the Cassette has been loaded with the cell lysate the PI is dissolved and the cellular DNA is stained.

After placement in the NucleoCounter the stained mixture is automatically transferred to the NucleoCassette chamber. Green light excites the PI-DNA intercalation and the red light emitted is registered in the CCD camera for correlation into a cell count.

After analysis the sample and the PI is contained inside the NucleoCassette, which can be safely discarded. This offers a safe sample disposal.

The thickness of the measurement chamber of each NucleoCassette is measured during production, accurately determining the analysed volume in each measurement. This, together with durable optical components, makes the NucleoCounter calibration free.

As the NucleoCassette contains the entire flow system as well as the measurement chamber, neither cleaning nor maintenance of the NucleoCounter instrument is needed.



## NucleoCounter Specifications

**Loading volume:** 50 µl is loaded into the NucleoCassette

**Measurement volume:** 2 µl in the measurement chamber of the NucleoCassette

**Analysis time:** 30 seconds

**Measurement range:**  $5 \times 10^3 - 2 \times 10^6$  cells/ml

**Size:** 38 x 26 x 22 cm (W x H x D), weight 3 kg

**Software:** NucleoView computer software for documentation and presentation - optional

**Printer:** External printer for documentation - optional

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**Technology that Counts**