



Counting Chamber (Hemocytometer) Disposable glass counting chamber

Economy

Bioanalytic disposable counting chambers are very economical:

- No cover glass put on required (time saving, improved safety).
- No cleaning required (great time saver, rapid sequence analysis).
- No disinfection required (no risk of infection by cleaning or disinfection work).

Result of above is a time reduction of about 8 to 15 minutes per one cell counting.

Profitability:

The working and cost savings for a laboratory assistant is calculated as follows: Based on an annual working time of 210 working days with 8 hours and personnel costs of 40,000.00 \$ or € per year (incl. social contributions and taxes) saved labor costs are calculated by counting about 4.00 \$ or € per 10 minutes of work.

The disposable counting chambers of Bioanalytic cost only a fraction of the savings effort.

Product

Characteristics

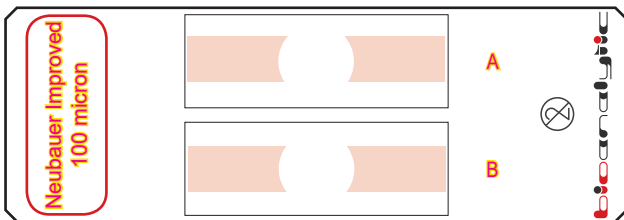
Bioanalytic disposable counting chambers are made from glass with high quality:

- Usable like conventional counting chambers, but much easier to handle and significantly reduced infection risk through elimination of cleaning procedures.
- Compared to plastic single use counting chambers no shrinkage (longevity) and higher precision in the manufacture (dimension stability).
- The single use counting chambers made from glass are CE conform and are marked with the IVD and CE symbol.

Contents/Main Components

CD-XXXX-0025 1x 25 pcs Disposable Counting Chambers (Hemocytometer) made from glass, packed in a plastic box. Store at room temperature and on a dry place.

Open box only for removing counting chambers, close immediately. This saves slides from dust.



For opening the plastic box please press bottom on the right and on the left side and remove cover. For closing replace cover and push down.

Sample Material

For the count in the Bioanalytic disposable counting chamber, any sample material can be used (in dilution), which is also suitable for conventional counting chambers.

The type of dilution depends on the sample and type of cells to be counted.

Bioanalytic GmbH offers a wide range of ready-to-use test kits for counting cells from blood, other body fluids and cell suspensions (Human, vet. med., Life Science)

Risks and Safety

Please observe the necessary precautions for use of laboratory reagents and body fluids; as well as possibly also of microbiological samples. Applications should be performed by expert personnel only. Follow the national and laboratory internal guidelines for work safety and infection control. Wear suitable protective clothing and disposable gloves while handling.

It is important to ensure effective protection against infection according to laboratory guidelines. Use a capillary holder for capillaries.

Application

General

For disposable counting chambers is - especially for the in-vitro diagnostics - the same rule valid as for conventional counting chambers:

Both counting chamber fields have to be filled with the same sample and both fields have to be counted. Both results must not diverge more than 10%, then the average is used as a result. For larger deviations, the counting is necessary to repeat, possibly with freshly built dilution.

Filling of counting chamber

Before using, please refer also to the manual of your test-packing.

Fill the counting chamber fields with 25 µL sample dilution each in one of the both ways:

- Use an automatic 25 µL pipette and set the top of the tip on the border of the cover glass. Fill the dose volume evenly into the counting chamber, or
- Use Chamber-Fill-Capillary of Bioanalytic TIC system kits and fill by capillary effect about half to 2/3 with fresh resuspended sample dilution. Close the upper end with the finger. Set the open lower end on the border of the cover glass and fill the chamber evenly.

The disposable counting chamber should be filled complete from one end of the cover glass to the other end. There should not be any solution outside the cover glass and there should not be more than 1 mm air from the border of the cover glass. The red marked area should be nearly complete covered with solution.

Counting of the cells and calculation

The counting of the cells and the calculation is analog to the usual counting procedure. You can use phase-contrast optics or transmitting light and the magnification that is recommended in the test kit description.

Special features

- Bioanalytic disposable counting chambers have, due to their construction, a much lower evaporation rate than conventional counting chambers, because only the two narrow sides are open and the distance to the counting grid is farther.
This makes it possible to do some counts without use of a humidity chamber when the storage time exceeds not more than five minutes. This prevents water condensation on the surfaces (cover slip top, slide bottom surface).
- Overfilling and its consequences, as with conventional counting chambers, is less possible and more clearly visible.
- Due to the absence of the cleaning step there is also no risk of cell damage or lysis by remnants of cleaning detergents.
- Slides and disposable counting chambers have nearly the same height. This eliminates complex height adjustment of the object table during the change. This lowers the risk of lens-slide crash.
- Dry viewed counting chambers may have unusual structures (similar to tree-like branching). These "drying cracks" in the micro coating of the glass surface disappear after filling and do not affect the counting.

Cleaning and Disinfection

Cleaning is no longer necessary as disposable product.
Disinfection prior to disposal is possible with conventional disinfectants.
Only use undamaged and clean counting chambers.

Possible Errors

If the following errors occur, a new counting chamber must be filled.

Too many or too few cells

- Dilution is not resuspended immediately before chamber filling.
⇒ Attention! Create new dilution. The existing dilution was falsified by the sampling and can no longer be used for further counting.
- Counting chamber filling not correct.
- Wrong fields were counted.
- L rule is ignored.
- Boundary lines not used correctly.

Implausible results

- Wrong calculation
⇒ Check and correct.
- Wrong dilution.
⇒ Attention! Create new dilution!
- Incorrect counting chamber type, wrong counting chamber depth (special depths exist).

Notes

Disposal

For waste management please refer to the directives of your country. The counting chambers are made from glass.

Literature & Footnotes

Observe the instructions of the reagent kit manufacturer. In particular, in vitro diagnostics (IVD) procedure must not deviate from the manufacturers standard operation procedure.

- [1] Regulation (EU) 2017/746 (IVDR).
 - [2] Product information Bioanalytic GmbH, Counting net descriptions with coloured illustrations and calculation examples.
Can be downloaded from the respective counting chamber at www.bioanalytic.de.
- (1) Dilution solutions and test kits are available for different testing methods: www.bioanalytic.de or information on request: support@bioanalytic.de.