

CELLSTAR® Cell Culture Microplates

Cell culture treated microplates are available in the following versions: 96, 384, 1536 well format

Properties

- Improved cell adhesion through physical surface treatment
- Compatible with automated systems. For further information concerning ANSI standards please visit our website: www.gbo.com/bioscience/technical_information
- Alphanumeric well coding

! An overview of all 96 well, 384 well and 1536 well microplates listed in this catalogue can be found in the Technical Appendix → p. A 1 3 ff.

! Detailed technical information on microplates
 → p. 2 | 2 ff. HTS microplates
 → p. 3 | 2 ff. Immunology
 → p. 14 | 4 Barcode labelling of microplates

Further literature on cell culture treated microplates
 → **Application Note “Establishing a cell culture assay based on TR-FRET for screening G-Protein-coupled receptors”** (F074 058)
 → **Application Note “Selection of cell culture surfaces for the adipogenic differentiation of hMSCs”** (F010 003)

96 Well Polystyrene Cell Culture Microplates

Cell culture treated 96 well microplates are available in the following versions:

- With U-, V- and F-bottom
- Clear, black and white
- Standard or half area microplates
- Black and white “clear bottom” plates (μ Clear®)
- Chimney well design, raised wells and condensation rings in lids prevent cross-contamination
- With or without lid
- Improved cell adhesion through physical surface treatment
- Barcode-labelled on request

Properties

- Lid enables gas exchange with minimal evaporation
- High clarity of the clear microplates for optimal microscopic examinations
- Stackable
- Alphanumeric well coding
- Individually wrapped peel-off bags
- Consecutive lot numbering

Well Profile

Depending on the application, the well profile is a key feature in a 96 well cell culture microplate. For further information and figures on the well profiles see → p. 2 | 6 f.

1. U-Bottom

- The “U” describes the round bottom shape.
- No sharp corners to facilitate easy and residue-free pipetting
 - Suitable for +/- analyses
 - Working volume: 40 – 280 μ l

2. V-Bottom

- The “V” stands for the conically tapered well bottom.
- For precise pipetting
 - Suitable for +/- analyses
 - Working volume: 40 – 200 μ l

3. F-Bottom / Standard (ST)

- The “F” refers to the flat well bottom.
- Excellent optical properties
 - For precise optical measurements
 - For microscopic applications (bottom reading)
 - Cell growth area: 32 mm²
 - Working volume: 25 – 340 μ l

4. F-Bottom / Chimney Well

- The chimney well cell culture microplate has the same well profile as the standard F-bottom plate. The difference to the standard plate is the chimney-like arrangement of the wells i.e. each well stands on its own. Therefore the risk of contamination from sample material being carried over is minimised.
- Cell growth area: 34 mm²
 - Working volume: 25 – 340 μ l

μ Clear® / Solid Bottom

Clear bottom microplates have pigmented walls and a transparent thin film bottom, the so-called μ Clear® bottom. In contrast to our standard microplates with a solid polystyrene bottom, they are ideal for cell culture and microscopic applications using fluorescence or luminescence detection methods.

Half Area Microplates

- For many applications, a reduction of the sample volume is an important feature. Beside high-format plates, the 96 well half area microplates offer an interesting alternative here. They can be pipetted automatically as well as manually without any problem and allow a reduction of the sample volume up to 50 %.
- Cell growth area: 15.0 mm²
 - Working volume: 15 – 175 μ l

! **Bulk Packaging**
 For selected products Greiner Bio-One also offers user-friendly bulk packaging (Fig. 1). Additional products are available in bulk pack upon request.

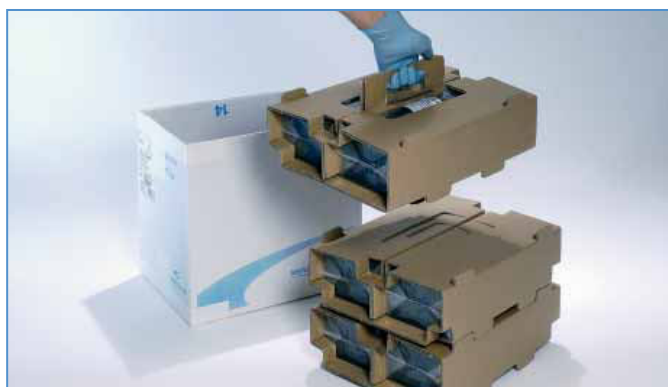


Figure 1: User-friendly bulk packaging

1 Cell/
Tissue Culture

2 HTS-
Microplates

3 Immunology/
HLA

4 Microbiology/
Bacteriology

5 Tubes/Multi-
Purpose Beakers

6 Liquid
Handling

7 Molecular
Biology

8 Protein
Crystallisation

9 Separation

10 Biochips/
Microfluidics

11 Cryo-
Technics

12 Lids/Sealers/
CapMats

13 Reaction Tubes/
Analyser Cups

14 Accessories

CELLSTAR® OneWell Plate™ and FourWell Plate™

CELLSTAR® OneWell Plate™ Non-divided plate for tissue culture applications

The new CELLSTAR® OneWell Plate™ can be used if large quantities of cells have to be cultivated. The external dimensions comply with ANSI standards to render the plate suitable for use on a wide range of cell culture and liquid handling systems. With a growth area of 95 cm², the OneWell Plate™ fills the gap between the growth areas of 58 cm² (Cat.-No. 664 160) and 143 cm² (Cat.-No. 639 160) in the cell culture dish product range. Handling and the required incubator space are improved compared to a round cell culture dish. Notches on the left side of the plate and the lid ensure a secured lid position. The TC-treated version is provided with a proprietary physical surface treatment increasing the hydrophilicity of the plate and facilitating the cultivation of adherent cells. As with all Greiner Bio-One CELLSTAR® products, the CELLSTAR® OneWell Plate™ is made of high grade polystyrene and is guaranteed to be sterile, non-pyrogenic, non-cytotoxic and free of detectable DNase, RNase and human DNA.

Beside general tissue culture applications the CELLSTAR® OneWell Plate™ can be used as a multipurpose liquid container or disposable for the denaturation, hybridisation and washing of membranes (Southern, Northern and Western Blot).

CELLSTAR® FourWell Plate™ Subdivided plate for microscopic applications

The new CELLSTAR® FourWell Plate™ facilitates the cultivation of cells and the storage of microscopic slides in an HTS - compatible plate complying with the ANSI standard. With its four subdivisions the plate offers space for four individual slides with standard dimensions and enables four parallel experiments. Cells and tissue samples cultivated on these slides can be supplied quickly with fresh media and can be examined directly under a microscope. Thereafter, samples can also be fixed and analysed by immunohisto- and immunocytochemical techniques. Notches on the left side and a numbering of each individual compartment make a laterally reversed usage or confusion of samples impossible.

A semicircular recession at the top and at the bottom of each compartment enables easy removal and handling of slides. The two pins at the left and right side of the semicircular recession hinder the microscopic slide to adjoin the outer rim of the plate and to fully cover the recession. This guarantees that the slide can always be removed manually from the compartment even if it adheres to the plate bottom due to capillary forces. Beyond the indicated microscopic applications, the CELLSTAR® FourWell Plate™ can also be used as a liquid container or disposable for the denaturation, hybridisation and washing of membranes (Southern, Northern and Western Blot).



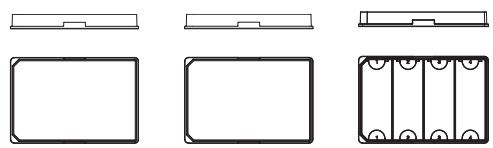
OneWell Plate™ FourWell Plate™

CELLSTAR® OneWell Plate™ (non-sterile) for bacteriological applications p. 4 | 4

New

Free of detectable DNase, RNase, human DNA
non-pyrogenic

non-cytotoxic



Cat.-No.	670 180	670 190	9607 7307
Description	OneWell Plate™	OneWell Plate™	FourWell Plate™
No. of chambers	1	1	4
Length [mm] x width [mm]	127.8 x 85.5	127.8 x 85.5	127.8 x 85.5
Height [mm]	14.4	14.4	14.4
Total volume [ml]	113.7	113.7	18.6/well
Growth area [cm ²]	95	95	-
Notches	+	+	+
TC surface treatment	+	-	-
Sterile	+	+	+
Lid	+	+	+
Quantity per bag/case	8/32	8/32	8/32