### Your **Power** for Health







# Microplate Selection Guide

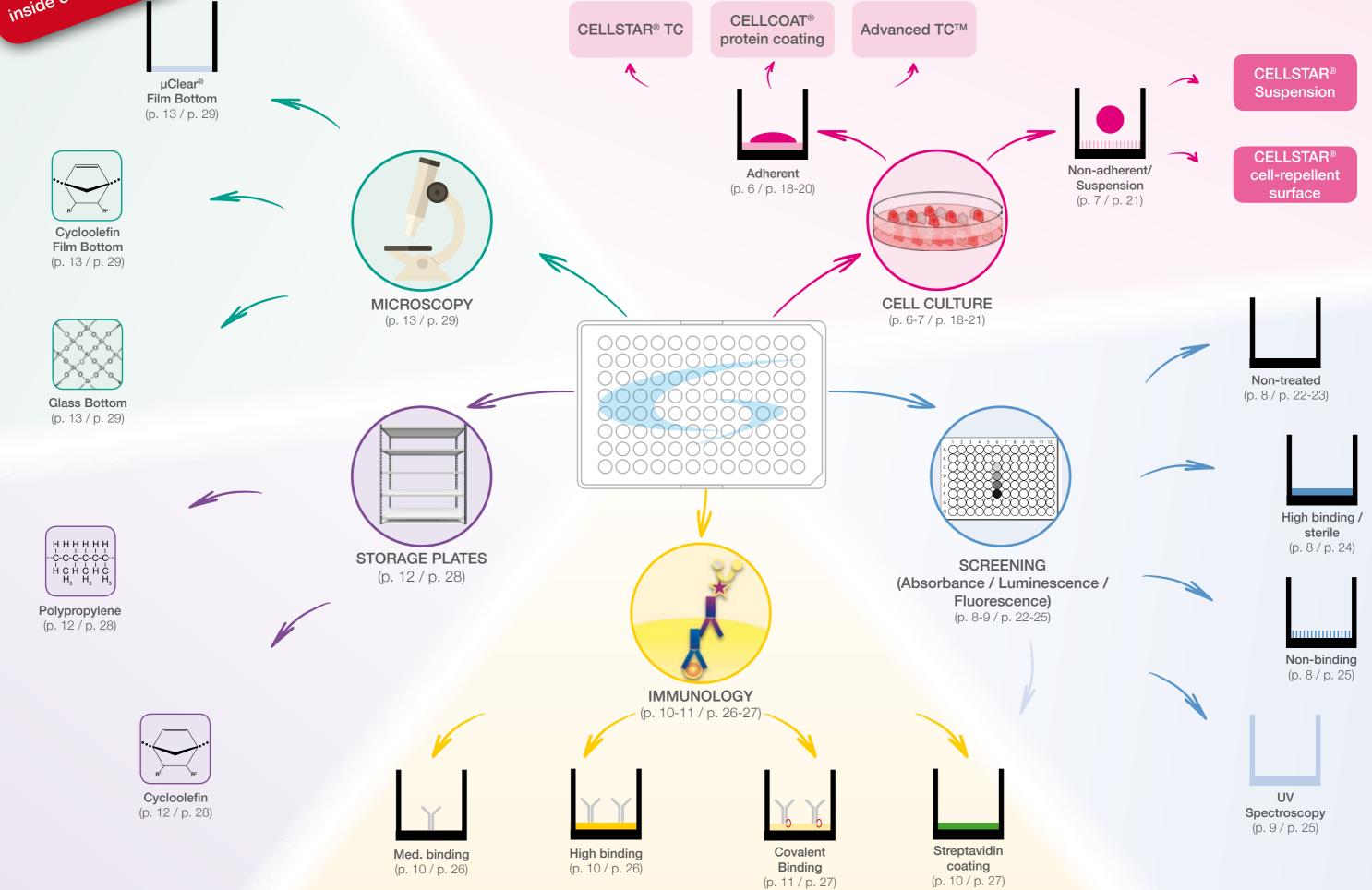
Explore our world of microplates



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Microplate overview as removable poster inside of the brochure

# **Greiner Bio-One World of Microplates**







### 1. Introduction

Continued progress in research and related technologies, such as microscopy, imaging, detection and liquid handling systems, has given rise to a wide variety of platforms used in basic science, biotechnology and pharmaceutical drug development. Today, researchers need to select application-specific microplates among a broad range of products that differ in format, design, base material, colour and surface properties. The intent of this brochure is to provide an overview of microplates available from Greiner Bio-One, with a focus on applications.

### 2. General Microplate Features

#### 2.1 Base Material

**Polystyrene** is the most extensively used material for plastic laboratory ware. The highly transparent resin is ideally suited for both microscopic imaging and optical measurements. Due to its chemical nature, polystyrene is a hydrophobic compound; however, its properties can be adjusted with a variety of physical surface treatments or coatings to accommodate requirements for multiple diverse applications. This capability renders polystyrene as the perfect base material to manufacture vessels for cell culture, immuno assays as well as for screening and spectroscopy applications.

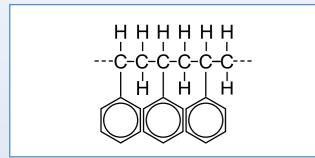


Figure 1: Chemical structure of polystyrene (PS)

**Polypropylene** is characterised by a high resistance to common chemicals (e.g. DMSO) and thermal stability (-196 °C to +121 °C). Polar molecules like DNA or proteins are binding less to polypropylene than to polystyrene. One drawback of polypropylene is its limited transparency; however, this feature is not typically required for the primary application served, in the manufacture of storage plates and vessels. Commonly, vessels made of polypropylene are not surface treated or coated.

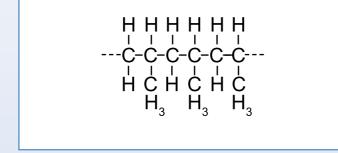


Figure 2: Chemical structure of polypropylene (PP)

Cycloolefin is frequently the material of choice for microplates with special requirement profiles. A low level of autofluorescence, along with exceptional transparency in lower UV wavelengths, enables cycloolefin microplates to be utilised for spectroscopic measurements in the UV range (UV-Star® microplates). The chemical stability of cycloolefin to polar solvents like DMSO, together with an extraordinarily low vapour diffusion rate, render the base material very suitable for the production of compound storage microplates, and the manufactures' dimensional stability is additionally beneficial for microplate use within fully automated systems. Moreover, cycloolefin's glass-like optical properties, when combined with a respective surface treatment, facilitate use of cycloolefin microplate for cell culture applications with sophisticated optical requirements such as high resolution confocal microscopy and high content screening.

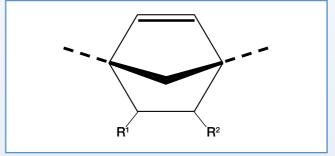


Figure 3: Chemical structure of norbonene (monomer of cycloolefin)

#### 2.2 Pigmentation

**Black** pigmented microplates are commonly used for fluorescence applications, whereas **white** pigmented microplates typically support luminescence measurements, and are sometimes used to enhance fluorescence signal intensity. Both pigmentations help overcome critical issues for these techniques, such as background, autofluorescence, and well-to-well crosstalk. Pigmentation does not impact the material or surface chemistry, and black or white polystyrene microplates are available with different surface properties. Polypropylene microplates are as well available with black and white pigmentation and offer lower biomolecule binding and higher thermal and chemical resistance than polystyrene.

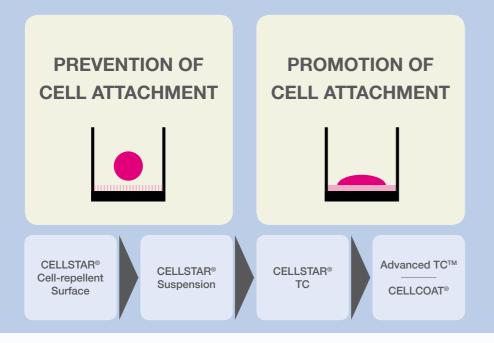
| Application   | Product Description  | Literature<br>(→ p. 14-15)     |
|---|--|--------------------------------|
| Colorimetric Measuremen                             | t  |                                |
|   | Transparent polystyrene<br>microplates   | 4, 6, 8, 18                    |
| Fluorescence Measureme                              | nt   |                                |
| Top reading   | Black microplates with solid<br>bottom<br>White microplates to enhance<br>signal intensity | 9                              |
| <ul><li>Bottom reading</li><li>Microscopy</li></ul> | Black microplates with<br>transparent film bottom or<br>glass bottom                       | 1, 2, 3,<br>4, 5, 7,<br>17, 20 |
| Luminescence Measurem                               | ent  |                                |
| Top reading   | Solid white microplates  | 5, 18                          |
| <ul><li>Bottom reading</li><li>Microscopy</li></ul> | White microplates with transparent film bottom   |                                |

Table 1: Microplate colour & corresponding applications

### 2.3 Surface Properties

At the well surface, interaction between the sample and the microplate takes place. Therefore surface properties play an important role for the functionality of a vessel. Surface properties can be modified in many ways, whether by physical, chemical or coating methods, to fulfill various demands.

#### Surface Properties of Cell Culture Microplates



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### 3. Microplates by Application

#### 3.1 Cell Culture

#### 3.1.1 Adherent Cell Culture

**CELLSTAR® TC** (TC = Tissue Culture) is the standard surface for classical cultivation of adherent cells. CELLSTAR® TC products

undergo a special physical surface treatment, leading to the incorporation of polar groups such as carboxyl and hydroxyl residues, which functionalises the hydrophobic polystyrene surface to result in improved, consistent cell attachment. CELLSTAR<sup>®</sup> TC products are sterile, and can be stored at room temperature.

For fastidious, primary or sensitive cells, cells cultivated under restricted growth conditions (serum-free or serum-reduced), or cells stressed by transduction or transfection, Greiner Bio-One offers the synthetic Advanced TC<sup>™</sup> surface and the CELLCOAT<sup>®</sup> product line. The surface of the **Advanced TC<sup>™</sup>** cell culture vessels is chemically modified to positively influence cellular features and functions. Enhanced cell attachment and higher proliferation rates improve and accelerate cell expansion. The positive effect of the Advanced TC<sup>™</sup> surface is particularly apparent following cellular stress induced by transfection or transduction processes. In contrast to biological coatings, the surface chemistry is synthetic. Advanced TC<sup>™</sup> products are sterile, and can be stored at room temperature. The **CELLCOAT**<sup>®</sup> product line comprises cell culture vessels which are coated with proteins of the extracellular matrix (Collagen Type I, Fibronectin, Laminin) or synthetic proteins (Poly-D-Lysine, Poly-L-Lysine). As a synthetic molecule, Poly-Lysine is free from contamination with other proteins. Biological coatings facilitate the growth of many cell types, including hepatocytes, muscle cells, epithelial/endothelial cells, neural cells and transfected cell lines. Many otherwise difficult-tocultivate cells adhere to biological coatings, thereby enabling successful culture. Additionally, for certain cell lines, protein coating can have a positive influence on differentiation and morphology. CELLCOAT<sup>®</sup> surfaces are also highly suitable for serum-free and serum-reduced cell cultivation, promotion of cell adhesion and stressful procedures like transfection or automated washing.

For microplates especially developed to meet the requirements of **high content screening** applications, please refer to  $\rightarrow$  chapter 3.5 (p. 13).

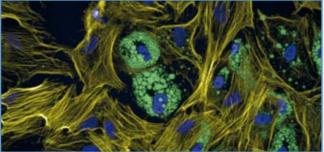


Figure 4: Adipogenesis of human mesenchymal stem cells on 384 wel polystyrene film bottom microplates (REF 781091). Green = LipidTOX<sup>™</sup> green, staining of lipid vesicles Yellow = Phalloidin TRITC, staining of the cytoskeleton Blue = DAPI staining of the nuclei

#### Table 2: Cell culture applications & corresponding microplates

| Application   | Product   | Description   | Literature<br>(→ p. 14-15) |
|---|---|---|----------------------------|
| Adherent Cell Cultur  | re  |   |                            |
| <ul> <li>Standard</li> </ul>  | CELLSTAR® TC  | Physically<br>modified,<br>hydrophilic<br>surface   | 1, 2, 3, 5, 6,<br>7, 9, 18 |
| Cultivation of fastidious cell lines  | Advanced TC <sup>™</sup>                                | Synthetic surface   | 1, 2, 7,<br>10, 16         |
| <ul> <li>Cultivation under<br/>serum-free and<br/>serum-reduced<br/>conditions</li> <li>Cultivation of<br/>transfected and<br/>transduced cell<br/>lines</li> <li>Automated<br/>washing</li> </ul>                          | CELLCOAT®   | Biological coating<br>with extracellular<br>matrix or<br>synthetical<br>proteins          | 1, 2, 3, 5,<br>7, 11       |
| Non-Adherent Cell C   | Culture   |   |                            |
| <ul> <li>Suspension<br/>culture</li> </ul>  | CELLSTAR®<br>suspension                                 | Hydrophobic<br>surface  | 7, 19                      |
| <ul> <li>Suspension<br/>culture of semi-<br/>adherent and<br/>adherent cell lines</li> <li>Spheroid<br/>formation of<br/>tumour cells</li> <li>Embryoid body<br/>formation and<br/>aggregation of<br/>stem cells</li> </ul> | CELLSTAR <sup>®</sup> cell-<br>repellent surface        | Chemically<br>modified surface,<br>inhibits cell<br>adherence                             | 12, 13, 19                 |
| High Content Scree  | ning (see also $\rightarrow$ p.                         | 13)   |                            |
| <ul> <li>Confocal<br/>microscopy</li> <li>High resolution<br/>microscopy</li> </ul>   | SCREENSTAR  | High quality<br>cycloolefin<br>film bottom<br>microplates with<br>CELLSTAR® TC<br>surface | 17, 20                     |
|   | SensoPlate <sup>™</sup><br>SensoPlate <sup>™</sup> Plus | Glass bottom<br>microplates with<br>accurate planarity                                    | 1, 20                      |

#### 6



#### 3.1.2 Non-adherent / Suspension Culture

**CELLSTAR®** suspension culture vessels are well suited for suspension culture of non-adherent cells. CELLSTAR® suspension products feature no surface treatment and are sterile.

The **CELLSTAR**<sup>®</sup> **cell-repellent surface** has been specifically developed to effectively prevent the attachment of semi-adherent and adherent cell lines. As the cell-repellent surface prevents cell-surface interactions, it is an ideal substrate for **3D cell culture** applications such as the formation of **tumor spheroids** or the cultivation of **stem cell aggregates**. In addition, microplates with cell-repellent surface are the perfect platform for **3D hydrogel cultures** and **magnetic cell culturing**. Inhibition of cell attachment is achieved through an innovative chemical surface modification. CELLSTAR<sup>®</sup> cell-repellent products are sterile.

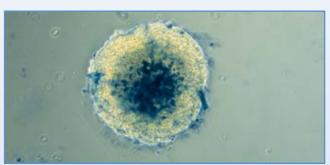
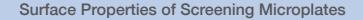
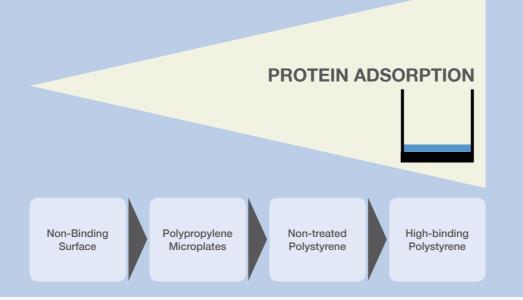


Figure 5: Trypan blue staining of a HEK spheroid grown on a 96 well polystyrene U-bottom microplate with cell-repellent surface







### 3.2 Screening and UV/VIS Spectroscopy

For biochemical screening applications, microplates made of **polystyrene** without surface treatment (**non-treated**) are frequently the plate of choice. Greiner Bio-One

polystyrene microplates are manufactured of carefully selected raw material batches and demonstrate reproducibly low biomolecular binding. Due to their material properties, **polypropylene** microplates (see also  $\rightarrow$  chapter 3.4, p. 12) feature less biomolecule adsorption than polystyrene. However, for very sensitive applications, even low amounts of biomolecular binding can interfere with the assay.

Greiner Bio-One's **non-binding surface** for microplates effectively prevents binding. Characterised by low protein, peptide, DNA and RNA binding properties, the nonbinding surface increases assay sensitivity by reducing background and, therefore, improving signal-to-noise ratio. The non-binding surface is achieved through a stable chemical modification of the microplate surface. It remains stable under common assay conditions, and does not degrade during short-term storage.

**High-binding** polystyrene microplates can be used for applications where sterile microplates are needed. Sterile polypropylene microplates are available upon request.

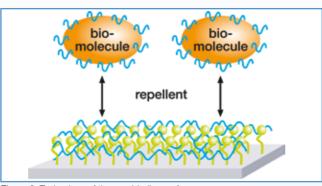
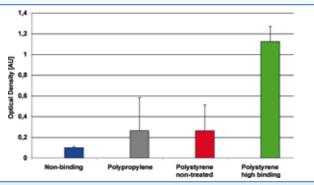


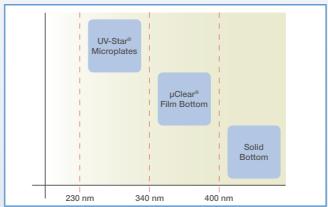
Figure 6: Technology of the non-binding surface. The hydrate layer, created by covalently linked functional groups, enables biomolecules to remain in solution, thereby preventing their binding to the surface.





For colorimetric measurements in the visible wavelength range, transparent polystyrene microplates are ideal due to the high clarity of polystyrene. However, the transmission rate of most solid polystyrene vessels and plates drops sharply at approximately 400 nm. The usage of thin transparent film bottoms in black or white framed **µClear**<sup>®</sup> plates extends detection capability down to 340 nm. Microplates with µClear<sup>®</sup> film bottom are also an excellent choice for standard microscopic applications (see also  $\rightarrow$  chapter 3.5, p. 13).

For measurements in the lower UV range, e.g. for the measurements of DNA or protein concentration, **UV-Star**<sup>®</sup> microplates manufactured out of cycloolefin with transmission down to 230 nm are mandatory.



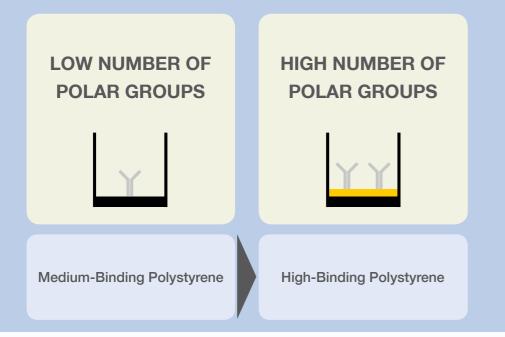


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#### Table 3: Screening applications & corresponding microplates

| Application                     | Product                    | Description   | Literature<br>(→ p. 14-15) |
|---------------------------------|----------------------------|---|----------------------------|
| UV Spectroscopy (               | 230 - 340 nm)              |   |                            |
|                                 | UV-Star®                   | UV-transparent<br>cycloolefin<br>film bottom<br>microplates       | 4, 18                      |
| Spectroscopic Mea               | asurements down t          | to 340 nm (340 - 400 n  | m)                         |
|                                 | µClear®                    | Polystyrene<br>film bottom<br>microplates with<br>pigmented frame | 4, 18                      |
| Colorimetric Mease              | urements (> 400 nr         | n)  |                            |
|                                 |                            | Polystyrene<br>microplates<br>without surface<br>treatment        | 4, 18                      |
| Fluorescence Meas               | surements                  |   |                            |
| <ul> <li>Top reading</li> </ul> |                            | Solid black or white microplates                                  | 18                         |
| Bottom reading                  |                            | Black µClear®<br>microplates for<br>bottom reading                | 1, 7, 11,<br>17, 20        |
| Luminescence Mea                | asurements                 |   |                            |
| <ul> <li>Top reading</li> </ul> |                            | Solid white microplates   | 9, 18                      |
| Bottom reading                  |                            | White µClear®<br>microplates for<br>bottom reading                | 1, 18                      |
| Basic Biochemical               | Assays                     |   |                            |
|                                 |                            | Polystyrene<br>microplates<br>without surface<br>treatment        | 4, 9                       |
| Sensitive Biochem               | ical Assays                |   |                            |
| Sensitive<br>biochemical assays | Non-binding<br>microplates | Chemical surface modification                                     |                            |

Surface Properties of Immunology Microplates





For assays based on the immobilisation of biomolecules to the surface of microplates, polystyrene is by far the most commonly used base material. Due to its chemical



nature, polystyrene is a hydrophobic compound and non-treated polystyrene plates feature hydrophobic characteristics. If attachment to the solid surface is based upon passive adsorption, e.g. in ELISA\*, physiochemical forces like hydrophobic bonds, hydrophilic interactions and H-bonding are relevant. Therefore, ELISA microplates are most often physically treated to introduce a defined number of hydrophilic groups to the microplate surface.

Greiner Bio-One offers both a **medium** and a **high binding surface** for passive adsorption. The high binding surface features a relatively high number of polar groups, whereas the number of polar groups is limited on the medium binding surface. The determination for which surface is best suited for a specific application should be evaluated empirically, as, in addition to surface properties, it is important to consider issues such as nonspecific binding and other assay parameters to make the appropriate selection.

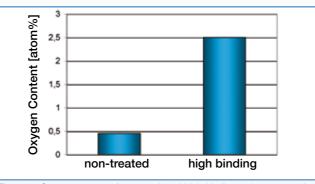


Figure 9: Oxygen content of untreated and high binding polystyrene surface determined by X-ray photoelectron spectroscopy

For some applications, adsorptive binding to a physically modified polystyrene surface is not feasible. One alternative is to take advantage of the strong noncovalent interaction between streptavidin and biotin. Here, **streptavidin coated microplates** act as solid surface, upon which biotinylated biomolecules can be attached very effectively, enabling a robust tool for microplate binding assays.



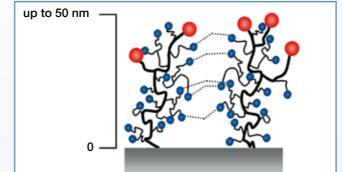


Figure 10: 3-dimensional functional matrix

Microplates with a functional 3-dimensional matrix as surface offer the possibility for **covalent binding** of biomolecules to the microplate surface. Coupling can take place in standard coating buffers and needs no additional steps. Due to the nature of the 3-dimensional functional matrix, non-specific background is very low, and, in comparison to physically treated microplates, the 3D matrix enhances signal intensity.

\* ELISA = Enzyme-linked Immunosorbent Assay FIA = Fluorescence Immunoassay LIA = Luminescence Immunoassay

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#### Table 4: Immunology applications & corresponding microplates

| Application                             | Product  | Description   | Literature<br>(→ p. 14-15) |
|---|--|---|----------------------------|
| ELISA*                                  | MICROLON® 200<br>MICROLON® 600                         | Transparent<br>microplates for<br>immunological<br>assays | 4, 6, 8,<br>14, 18         |
| FIA*                                    | FLUOTRAC <sup>™</sup> 200<br>FLUOTRAC <sup>™</sup> 600 | Black microplates<br>for immunological<br>assays          | 14, 18                     |
| LIA*                                    | LUMITRAC <sup>™</sup> 200<br>LUMITRAC <sup>™</sup> 600 | White<br>microplates for<br>immunological<br>assays       | 14, 18                     |
| Binding of<br>biotinylated<br>molecules | Streptavidin-<br>coated<br>microplates                 | Streptavidin coating                                      |                            |
| Covalent binding                        | 3D functional matrix                                   | 3-dimensional<br>matrix coating                           |                            |



#### 3.4 Storage Plates

Traditionally, microplates used for storage of active reagents, patient samples or biomolecules are made of **polypropylene** (see also → chapter 3.2, p. 8). Storage plates are characterised by biological inertness, resistance

to numerous solvents, e.g. DMSO, and a wide range for temperature resistance. **MASTERBLOCK® storage plates** feature as well elevated well walls to facilitate sealing. The footprint is compatible with automated systems. Polypropylene storage plates are available from the 96 to the 1536 well format and with U-and V-bottom well design. The 384 **Deep Well MASTERBLOCK®** extends the range of polypropylene storage plates. Its conical well shape enables precise pipetting with almost no dead volume in parallel with a maximised well volume. Therefore the Deep Well MASTERBLOCK® is the ideal solution for the storage of compound libraries.

Special demands on storage plates are made by **acoustic liquid handling applications**. Therefore Greiner Bio-One's **compound storage plates** meant for acoustic liquid handling are subject of stringent production specifications to ensure constant well bottom features. These microplates are deionised after production and packed in antistatic bags. Besides a 384 well **polypropylene** storage plate, Greiner Bio-One offers a range of **cycloolefin storage plates** for acoustic liquid handling in the 384 well and 1536 well format.

Cycloolefin combines many utile features: resistance to polar solvents like DMSO, high optical clarity and glass like optical properties, excellent water and vapour barrier functions to minimise evaporation, nearly no leaching extractables and low biomolecule binding.

#### Table 5: Storage applications & corresponding microplates

| Application  | Product      | Description  | Literature<br>(→ p. 14-15) |
|--|--------------|--|----------------------------|
| Storage  | MASTERBLOCK® | Polypropylene<br>microplates                       | 15, 22                     |
| Compound<br>storage for<br>acoustic liquid<br>handling |              | PP / COP<br>microplates<br>for compound<br>storage | 21, 22                     |

#### 3.5 Microscopy and High Content Screening

New applications in high throughput and high content screening, as well as high resolution and confocal microscopy, have

increased the demand for microplates with pigmented walls and clear bottom. The product portfolio of Greiner Bio-One contains clear bottom microplates either with glass or a high-quality film bottom.

**µClear**<sup>®</sup> film bottom microplates combine a pigmented frame with a transparent bottom, a prerequisite for luminescence and fluorescence applications where bottom reading or microscopy are involved. Due to the limited thickness of the film, the intrinsic autofluorescence of polystyrene is minimised. Black and white µClear<sup>®</sup> microplates are available both non-treated (see  $\rightarrow$  p. 22-23) and with a wide variety of surface properties and coatings (see  $\rightarrow$  p. 18-21) well-suited for standard detection and microscopic applications.

SCREENSTAR microplates with cycloolefin film bottom are optimised for the specialised requirements of high content screening and high resolution microscopy. The 190 µm cycloolefin film bottom guarantees maximum resolution, even at high microscopic magnification, and the physical surface treatment assures a proven performance for consistent cell attachment.

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SensoPlate<sup>™</sup> / SensoPlate<sup>™</sup> Plus glass bottom microplates consist of a black pigmented polystyrene frame on to which a 175 µm thick borosilicate glass bottom is bonded. Thanks to the accurate planarity and superior optical properties, SensoPlate<sup>™</sup> microplates are especially recommended for fluorescence correlation spectroscopy and sophisticated microscopic applications. The optimised plate geometry of the SensoPlate<sup>™</sup> Plus permits the complete utilisation of all wells even for measurements with immersion objectives.

| Application  | Product                      | Description   | Literature<br>(→ p. 14-15) |
|--|------------------------------|---|----------------------------|
| Microscopic<br>applications<br>(where accurate<br>planarity is required)                                 | SensoPlate™                  | Black frame,<br>glass bottom  | 1, 17, 20                  |
| High magnification   | SensoPlate <sup>™</sup> Plus | Black frame,<br>glass bottom,<br>recessed rim                           | 20                         |
| Fluorescence /<br>luminescence<br>applications in<br>combination with<br>bottom reading or<br>microscopy | µClear*                      | Pigmented frame,<br>transparent film<br>bottom                          | 1, 2, 3, 4,<br>5, 7, 17    |
| High content<br>screening /<br>high resolution<br>microscopy   | SCREENSTAR                   | Cycloolefin<br>film bottom<br>microplates                               | 17, 20                     |
| UV spectroscopy  | UV-Star®                     | Cycloolefin film<br>bottom with high<br>transparency in<br>the UV range | 4                          |

Table 6: Microscopic applications & corresponding microplates

### 4. Literature about Microplates

This chapter gives you an overview of our publications, application notes and reports as well as our Greiner Bio-One Forum issues and brochures about microplates. All documents are published as pdf files on our website. Just search for the respective article number in the search function of the Download Center. You can also order a printed copy via e-mail to info@de.gbo.com.

### **4.1 Application Notes**



(1) F010003 Application Note: Selection of cell culture surfaces for the adipogenic differentiation of human mesenchymal stem cells (hMSC)



(2) F071105 Application Note: siRNA dependent gene silencing in HeLa cells cultivated on various cell culture surfaces



(3) F073022 Application Note: Influence of washing steps on cell attachment: Comparison of PDL-coated and cell culture treated microplates



(4) F073041 Application Note: UV/VIS spectroscopy in microplates UV-Star<sup>®</sup>, µClear<sup>®</sup>, MICROLON<sup>®</sup> and **CELLSTAR®** 



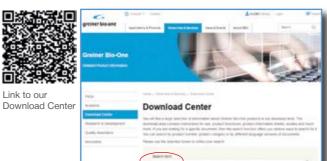
(5) F073103 Application Note: Enhanced transfection efficiency on protein coated microplates

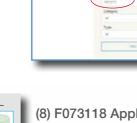


(6) F073106 Application Note: Insulin ELISA on high binding MICROLON® 600 and CELLSTAR® microplates



(7) F073117 Application Note: Improved cultivation and differentiation of embryonic stem cells





(8) F073118 Application Note: Influence of coating buffer and incubation conditions on ELISA performance

### (9) F074058 Application Note:

Establishing a cell culture assay based on time-resolved fluorescence resonance energy transfer (TR-FRET) for screening G-Protein coupled receptors



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(10) F076036 Application Report:
Advanced TC<sup>™</sup>: A novel cell culture
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surface improving the cultivation and differentiation of embryonic stem cells

#### (11) F073113 Application Note:

Cultivation and differentiation of human adipose derived mesenchymal Stem Cells with CELLSTAR® and CELLCOAT® cell culture products







(13) F073797 Application Report: CELLSTAR® microplates with cellrepellent surface as platform for

BIOMIMESYS®, a new generation of a mimetic hydrogel for 3D cell culture



### 4.2 Greiner Bio-One Forum



(14) F073004 Forum No. 9: Microplates for Enzyme Linked Immunosorbent Assays (ELISA)



(15) F073000 Forum No. 11: A new 384 well storage plate reducing compound consumption and supporting assay miniaturisation



(16) F071104 Forum No. 12: Advanced TC<sup>™</sup>: An innovative surface improving cellular assays



(17) F073120 Forum No. 15: SCREENSTAR: A new 1536 well microplate for high content and high throughput screening



(18) F073121 Forum No. 16: 96 well half area microplates and their application in fluorescence, luminescence and transmission measurements



(19) F073777 Forum No. 17: CELLSTAR® cell culture vessels with cellrepellent surface

(20) F073787 Forum No. 18: SCREENSTAR and SensoPlate<sup>™</sup> Plus: microplates for advanced microscopy



(21) F073795 Forum No. 20: 1536 well cycloolefin microplate for compound storage and acoustic liquid handling

### **4.3 Brochures**



(22) F073917: Intelligent solutions for sample storage



### 5. Barcode Service for Microplates

#### **5.1 General Information**

Eliminating the use of barcodes for sample tracking and sample management in today's routine work in pharma research and diagnostics is unthinkable, given the significantly increasing amounts of data.

Barcode systems simplify and expedite work processes. In addition, they permit the unequivocal identification of labelled samples at any time and help minimise errors due to sample mix up in manual data collection.

Greiner Bio-One offers a comprehensive barcode service for all 96, 384 and 1536 well microplates. In an automated production process, labels imprinted with barcodes are mounted on the outside rims of the microplates. The type of barcode used, the barcode sequence, the labelling as well as the position of the barcode are all specified by the customer. The barcode labels used are temperature-resistant (-70 °C to +50 °C). The label and the barcode imprint are smear-resistant and stable to numerous solvents.



F073015 Ordering form for barcoded microplates

#### 5.2 Barcode Ordering Procedure

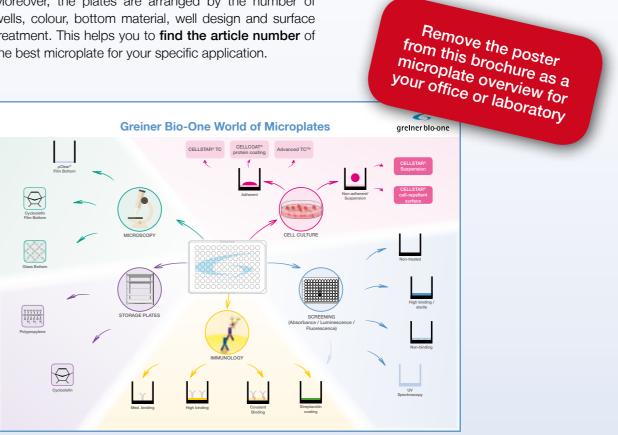
The complete and detailed filling out of our barcode order form is the basis for the error-free and fast barcode service which we wish to provide to our customers.

- 1. You will find the barcode order form on our homepage in the Download Center (F073015) or you may contact your sales representative at Greiner Bio-One for a printed copy.
- 2. After completely filling out the form, please verify the correctness of all your information with your signature.
- 3. Having received the completely filled out and signed barcode order form, Greiner Bio-One will check the feasibility of the requested barcode. A customerspecific item number is assigned to the order and communicated to you by your sales representative at GreinerBio-One, along with an expected delivery date.
- 4. If desired and in consultation with your representative at Greiner Bio-One, prototype specimen plates with barcode can first be produced as free samples.
- 5. For **reorders**: Please indicate the desired numbering sequence begin and the desired sequence end on your order. Only written orders can be accepted. If you have altered the general barcode requirements for your plates in the reorders (e.g. a different barcode type, a different labelling), we request that you fill out a completely new barcode order form.

### 6. Microplate Ordering Information

The following part of our brochure gives you an overview of all multiwell plates and microplates offered by Greiner Bio-One. All plates are **categorised by the applications** introduced before. The colour coding for all applications stays the same.

Moreover, the plates are arranged by the number of wells, colour, bottom material, well design and surface treatment. This helps you to find the article number of the best microplate for your specific application.



If you need any assistance in choosing the right microplate or if you would like to request samples, please contact your responsible Greiner Bio-One sales representative or contact us via e-mail to info@de.gbo.com.

#### CELL CULTURE ( $\rightarrow$ p. 6-7)

### **Adherent Cell Culture**

### CELLSTAR® TC

3) Lid with condensation rings

|      |  |       | Colour |         |       | Bottom                   |     | Well De | -                      |     |                      | Packing        |         |                |               |
|------|--|-------|--------|---------|-------|--------------------------|-----|---------|------------------------|-----|----------------------|----------------|---------|----------------|---------------|
|      | REF  | Clear | Black  | White   | Solid | µClear <sup>®</sup> film | F/C | U       | V                      | HA  | Surface <sup>2</sup> | Size           | Sterile | Lid            | Materia       |
| 9    | 657160   | •     |        |         | •     |                          | •   |         |                        |     | TC                   | 1/100          | •       | • <sup>3</sup> | PS            |
| 12   | 665180   | •     |        |         | •     |                          | •   |         |                        |     | TC                   | 1/100          | •       | • <sup>3</sup> | PS            |
| 24   | 662160   | •     |        |         | •     |                          | ٠   |         |                        |     | TC                   | 1/100          | ٠       | • <sup>3</sup> | PS            |
| 48   | 677180   | ٠     |        |         | ٠     |                          | ٠   |         |                        |     | TC                   | 1/100          | •       | • <sup>3</sup> | PS            |
|      |  |       | Colour |         |       | Bottom                   |     | Well De | sign <sup>1</sup>      |     |                      | Packing        |         |                |               |
|      | REF  | Clear | Black  | White   | Solid | µClear® film             | F/C | U       | V                      | HA  | Surface <sup>2</sup> | Size           | Sterile | Lid            | Materia       |
|      | 655160   | ٠     |        |         | ٠     |                          | ٠   |         |                        |     | TC                   | 1/100          | •       |                | PS            |
|      | 655162   | •     |        |         | •     |                          | ٠   |         |                        |     | TC                   | 5/100          | ٠       |                | PS            |
|      | 655180   | •     |        |         | •     |                          | ٠   |         |                        |     | TC                   | 1/100          | •       | • <sup>3</sup> | PS            |
|      | 655182   | •     |        |         | ٠     |                          | ٠   |         |                        |     | TC                   | 10/160         | •       | • <sup>3</sup> | PS            |
|      | 650160   | •     |        |         | •     |                          |     | •       |                        |     | TC                   | 1/100          | •       |                | PS            |
|      | 650180   | •     |        |         | •     |                          |     | •       |                        |     | TC                   | 1/100          | •       | •              | PS            |
|      | 651160   | •     |        |         | •     |                          |     |         | •                      |     | TC                   | 1/100          | •       |                | PS            |
|      | 651180   | •     |        |         | •     |                          |     |         | •                      |     | TC                   | 1/100          | •       | •              | PS            |
|      | 675180   | •     |        |         | •     |                          |     |         |                        | ٠   | TC                   | 8/32           | •       | •              | PS            |
| ΝEΙ  | 655079   |       | •      |         | •     |                          | •   |         |                        |     | TC                   | 10/40          | •       |                | PS            |
| 9    | 655086   |       | •      |         | •     |                          | •   |         |                        |     | TC                   | 8/32           | •       | •3             | PS            |
| 0    | 675086   |       | •      |         | •     |                          |     |         |                        | •   | TC                   | 8/32           | •       | •              | PS            |
|      | 655087   |       | •      |         |       | •                        | •   |         |                        |     | TC                   | 10/40          | •       |                | PS            |
|      | 655090   |       | •      |         |       | •                        | •   |         |                        |     | TC                   | 8/32           | •       | • <sup>3</sup> | PS            |
|      | 675090   |       | •      |         |       | •                        |     |         |                        | •   | TC                   | 8/32           | •       | •              | PS            |
|      | 655073   |       |        | •       | •     |                          | •   |         |                        |     | TC                   | 10/40          | •       |                | PS            |
|      | 655083   |       |        | •       | •     |                          | •   |         |                        |     | TC                   | 8/32           | •       | •3             | PS            |
|      | 675083   |       |        | •       | •     |                          | -   |         |                        | •   | TC                   | 8/32           | •       | •              | PS            |
|      | 655088   |       |        | •       | •     | •                        | •   |         |                        | •   | TC                   | 10/40          | •       | •              | PS            |
|      | 655098   |       |        | •       |       | •                        | •   |         |                        |     | TC                   | 8/32           | •       | • <sup>3</sup> | PS            |
|      | 675098   |       |        | •       |       | •                        | •   |         |                        | •   | TC                   | 8/32           | •       | •              | PS            |
|      | 075098   |       |        | -       |       |                          |     | Well De | oign <sup>1</sup>      | •   | 10                   | 0/32           | •       | •              | FJ            |
|      |  |       | Colour |         |       | Bottom                   |     | SV      | sign<br>S <sup>i</sup> |     |                      | Packing        |         |                |               |
|      | REF  | Clear |        | \\/bito |       |                          | -   |         |                        |     | Curfe e 2            | -              | Chavila | l id           | Motoria       |
|      |  | Clear | DIACK  | White   |       | µClear <sup>®</sup> film |     | HiBase  | LOD                    | ase | Surface <sup>2</sup> | Size           | Sterile | Lid            | Materia<br>PS |
|      | 781165   | •     |        |         | •     |                          | •   |         |                        |     | TC                   | 10/40          | •       |                |               |
|      | 781182   | •     | -      |         | •     |                          | •   |         |                        |     | TC                   | 8/32           | •       | •              | PS            |
|      | 781079   |       | •      |         | •     |                          | •   |         |                        |     | TC                   | 10/40          | •       |                | PS            |
|      | 781086   |       | •      |         | •     |                          | •   |         |                        |     | TC                   | 8/32           | •       | •              | PS            |
|      | 784086   |       | •      |         | •     |                          |     | •       |                        |     | TC                   | 8/32           | •       | •              | PS            |
| EL   | 788086   |       | •      |         | •     |                          |     |         | ٠                      |     | TC                   | 15/60          | •       | •              | PS            |
|      | 781092   |       | •      |         |       | •                        | •   |         |                        |     | TC                   | 10/40          | •       |                | PS            |
| ≥    | 781091   |       | •      |         |       | •                        | •   |         |                        |     | TC                   | 8/32           | •       | •              | PS            |
| 84 W | 781090   |       | •      |         |       | •                        | •   |         |                        |     | TC                   | 20/120         | •       | •              | PS            |
| 4    |  |       | •      |         |       | •                        |     |         | ٠                      |     | TC                   | 10/80          | •       |                | PS            |
| 84   | 788092   |       |        |         | •     |                          | ٠   |         |                        |     | TC                   | 10/40          | •       |                | PS            |
| 84   | 788092<br>781073   |       |        | ٠       |       |                          |     |         |                        |     | TC                   | 8/32           | •       | ٠              | PS            |
| 84   | 788092<br>781073<br>781080                               |       |        | •       | •     |                          | •   |         |                        |     |                      | 0 (0 0         |         |                |               |
| 84   | 788092<br>781073<br>781080<br>784080                     |       |        |         | •     |                          | •   | ٠       |                        |     | TC                   | 8/32           | •       | ٠              | PS            |
| 84   | 788092<br>781073<br>781080<br>784080<br>788073           |       |        | ٠       |       |                          | •   | ٠       | ٠                      |     | TC                   | 10/80          | •       | •              | PS            |
| 84   | 788092<br>781073<br>781080<br>784080<br>788073<br>781093 |       |        | •       | •     | •                        | •   | •       | •                      |     | TC<br>TC             | 10/80<br>10/40 |         | •              | PS<br>PS      |
| 84   | 788092<br>781073<br>781080<br>784080<br>788073           |       |        | •       | •     | •                        |     | •       | •                      |     | TC                   | 10/80          | •       | •              | PS            |

#### CELL CULTURE ( $\rightarrow$ p. 6-7)

### Adherent Cell Culture

#### CELLSTAR® TC

|        |        |                   |                    | Well Design <sup>1</sup> |                      |         |         |     |          |
|--------|--------|-------------------|--------------------|--------------------------|----------------------|---------|---------|-----|----------|
|        |        | Colour            | Bottom             | F F                      |                      | Packing |         |     |          |
|        | REF    | Clear Black White | Solid µClear® film | HiBase LoBase            | Surface <sup>2</sup> | Size    | Sterile | Lid | Material |
|        | 782180 | •                 | •                  | •                        | TC                   | 1/32    | •       | ٠   | PS       |
| 1      | 782078 | •                 | •                  | •                        | TC                   | 15/60   | •       |     | PS       |
| N<br>N | 782086 | •                 | •                  | •                        | TC                   | 10/40   | ٠       | ٠   | PS       |
| 36     | 782092 | •                 | •                  | •                        | TC                   | 15/60   | ٠       |     | PS       |
| 150    | 783092 | •                 | •                  | •                        | TC                   | 15/60   | ٠       |     | PS       |
|        | 782073 | •                 | •                  | •                        | TC                   | 15/60   | ٠       |     | PS       |
|        | 782080 | •                 | •                  | •                        | TC                   | 10/40   | ٠       | ٠   | PS       |
|        | 782093 | •                 | •                  | •                        | TC                   | 15/60   | •       |     | PS       |
|        | 783093 | •                 | •                  | •                        | TC                   | 15/60   | •       |     | PS       |

#### **CELLCOAT®** Protein Coating

|          | OLLLO                      |       | 1100        |       | Juni  | 2            |                  |                          |                      |                              |         |                |                |
|----------|----------------------------|-------|-------------|-------|-------|--------------|------------------|--------------------------|----------------------|------------------------------|---------|----------------|----------------|
|          |                            |       | Colour      |       |       | Bottom       | Well D           | Design <sup>1</sup>      |                      | Packing                      |         |                |                |
|          | REF                        | Clear | Black       | White | Solid | µClear® film | E                | /C                       | Surface <sup>2</sup> | Size                         | Sterile | Lid            | Material       |
| ELL      | 657950                     | ٠     |             |       | ٠     |              |                  | •                        | Col I                | 5/50                         |         | • <sup>3</sup> | PS             |
| ΝE       | 657940                     | ٠     |             |       | ٠     |              |                  | •                        | PDL                  | 5/50                         |         | • <sup>3</sup> | PS             |
| 9        | 657930                     | ٠     |             |       | ٠     |              |                  | •                        | PLL                  | 5/50                         |         | • <sup>3</sup> | PS             |
| Ŀ        | 662950                     | ٠     |             |       | ٠     |              |                  | •                        | Col I                | 5/50                         |         | • <sup>3</sup> | PS             |
| WELL     | 662940                     | ٠     |             |       | ٠     |              |                  | •                        | PDL                  | 5/50                         |         | • <sup>3</sup> | PS             |
| 24       | 662930                     | ٠     |             |       | ٠     |              |                  | •                        | PLL                  | 5/50                         |         | • <sup>3</sup> | PS             |
|          | 655950                     | ٠     |             |       | •     |              |                  | •                        | Col I                | 5/20                         |         | • <sup>3</sup> | PS             |
|          | 655940                     | ٠     |             |       | ٠     |              |                  | •                        | PDL                  | 5/20                         |         | • <sup>3</sup> | PS             |
|          | 655930                     | ٠     |             |       | ٠     |              |                  | •                        | PLL                  | 5/20                         |         | • <sup>3</sup> | PS             |
| ELL      | 655956                     |       | ٠           |       |       | ٠            |                  | •                        | Col I                | 5/20                         |         | • <sup>3</sup> | PS             |
| >        | 655946                     |       | ٠           |       |       | •            |                  | •                        | PDL                  | 5/20                         |         | • <sup>3</sup> | PS             |
| 96       | 655948                     |       | ٠           |       |       | •            |                  | •                        | PDL                  | 20/120                       |         | • <sup>3</sup> | PS             |
|          | 655936                     |       |             | •     |       | ٠            |                  | 5/20                     |                      | • <sup>3</sup>               | PS      |                |                |
|          | 655944                     |       |             | ٠     |       | •            | •                |                          | PDL                  | 5/20                         |         | • <sup>3</sup> | PS             |
|          |                            |       |             |       |       |              | Well D           | Design <sup>1</sup>      |                      |                              |         |                |                |
|          |                            |       | Colour      |       |       | Bottom       | SV               |                          |                      | Packing                      |         |                |                |
|          | REF                        | Clear | Black       | White | Solid | µClear® film | F                | HiBase                   | Surface <sup>2</sup> | Size                         | Sterile | Lid            | Material       |
|          | 781950                     | ٠     |             |       | ٠     |              | ٠                |                          | Col I                | 5/20                         |         | ٠              | PS             |
|          | 781940                     | ٠     |             |       | ٠     |              | ٠                |                          | PDL                  | 5/20                         |         | ٠              | PS             |
| ELL      | 781930                     | ٠     |             |       | ٠     |              | ٠                |                          | PLL                  | 5/20                         |         | ٠              | PS             |
| ≥        | 781956                     |       | ٠           |       |       | •            | ٠                |                          | Col I                | 5/20                         |         | ٠              | PS             |
| 84       | 781946                     |       | ٠           |       |       | •            | ٠                |                          | PDL                  | 5/20                         |         | ٠              | PS             |
| с,       |                            |       |             |       |       |              |                  |                          |                      |                              |         |                |                |
|          | 781948                     |       | ٠           |       |       | •            | •                |                          | PDL                  | 20/120                       |         | •              | PS             |
|          | 781948<br>781936           |       | •           |       |       | •            | •                |                          | PDL<br>PLL           | 20/120<br>5/20               |         | •              | PS<br>PS       |
|          |                            |       | •           |       | •     |              |                  | •                        |                      |                              |         |                |                |
|          | 781936                     |       |             | •     | •     |              |                  | ٠                        | PLL                  | 5/20                         |         | •              | PS             |
|          | 781936<br>784946           |       |             | •     |       |              | •                | ٠                        | PLL<br>PDL           | 5/20<br>5/20                 |         | •              | PS<br>PS       |
| 3        | 781936<br>784946<br>781945 |       |             |       |       | •            | •                | •<br>Design <sup>1</sup> | PLL<br>PDL<br>PDL    | 5/20<br>5/20<br>5/20         |         | •              | PS<br>PS<br>PS |
| WELL     | 781936<br>784946<br>781945 |       |             | •     | •     | •            | •<br>•<br>Well [ |                          | PLL<br>PDL<br>PDL    | 5/20<br>5/20<br>5/20         |         | •              | PS<br>PS<br>PS |
| 536 WELL | 781936<br>784946<br>781945 | Clear | •<br>Colour | •     | •     | •            | •<br>•<br>Well [ | Design <sup>1</sup>      | PLL<br>PDL<br>PDL    | 5/20<br>5/20<br>5/20<br>5/20 | Sterile | •              | PS<br>PS<br>PS |

Explanation of different well designs and abbrevations on p. 30
 TC = Tissue culture treatment; Col I = Collagen Type I; PDL = Poly-D-Lysine; PLL = Poly-L-Lysine
 Lid with condensation rings

## CELL CULTURE (→ p. 6-7)

### **Adherent Cell Culture**

### Advanced TC<sup>™</sup>

|        |        | Colour            | Bottom                         | Well Design <sup>1</sup> |                      | Packing |         |                |          |  |  |  |
|--------|--------|-------------------|--------------------------------|--------------------------|----------------------|---------|---------|----------------|----------|--|--|--|
|        | REF    | Clear Black White | Solid µClear <sup>®</sup> film | F/C HA                   | Surface <sup>2</sup> | Size    | Sterile | Lid            | Material |  |  |  |
| 6      | 657960 | •                 | •                              | •                        | AdTC                 | 1/100   | ٠       | • <sup>3</sup> | PS       |  |  |  |
| 12     | 665980 | •                 | •                              | •                        | AdTC                 | 1/100   | •       | • <sup>3</sup> | PS       |  |  |  |
| 24     | 662960 | •                 | •                              | •                        | AdTC                 | 1/100   | •       | • <sup>3</sup> | PS       |  |  |  |
| 48     | 677980 | •                 | •                              | •                        | AdTC                 | 1/100   | •       | • <sup>3</sup> | PS       |  |  |  |
|        | 655980 | •                 | •                              | •                        | AdTC                 | 1/100   | •       | • <sup>3</sup> | PS       |  |  |  |
| Ļ.     | 655982 | •                 | •                              | •                        | AdTC                 | 10/160  | •       | • <sup>3</sup> | PS       |  |  |  |
| / E L  | 655986 | •                 | ٠                              | •                        | AdTC                 | 8/32    | •       | • <sup>3</sup> | PS       |  |  |  |
| 6 W    | 675986 | •                 | ٠                              | •                        | AdTC                 | 8/32    | •       | •              | PS       |  |  |  |
| 6      | 655983 | •                 | ٠                              | •                        | AdTC                 | 8/32    | •       | • <sup>3</sup> | PS       |  |  |  |
|        | 675983 | •                 | ٠                              | •                        | AdTC                 | 8/32    | •       | •              | PS       |  |  |  |
|        |        |                   |                                | Well Design <sup>1</sup> |                      |         |         |                |          |  |  |  |
| _      |        | Colour            | Bottom                         | SV                       |                      | Packing |         |                |          |  |  |  |
| Ш      | REF    | Clear Black White | Solid µClear® film             | F LoBase                 | Surface <sup>2</sup> | Size    | Sterile | Lid            | Material |  |  |  |
| $\geq$ | 781986 | •                 | ٠                              | •                        | AdTC                 | 8/32    | •       | •              | PS       |  |  |  |
| 384    | 788986 | •                 | •                              | ٠                        | AdTC                 | 15/60   | •       | • <sup>4</sup> | PS       |  |  |  |
| 0      | 781983 | •                 | ٠                              | •                        | AdTC                 | 8/32    | •       | ٠              | PS       |  |  |  |
|        | 788983 | •                 | ٠                              | •                        | AdTC                 | 15/60   | •       | • <sup>4</sup> | PS       |  |  |  |

1) Explanation of different well designs and abbrevations on p. 30
 2) AdTC = Advanced TC<sup>™</sup>
 3) Lid with condensation rings
 4) Ultra low profile lid

### CELL CULTURE ( $\rightarrow$ p. 6-7)

## Non-Adherent Cell Culture / Suspension Culture

### CELLSTAR<sup>®</sup> Suspension Culture

|        |        |       | •      |       |       |              |     |                          |     |            |         |         |                |          |
|--------|--------|-------|--------|-------|-------|--------------|-----|--------------------------|-----|------------|---------|---------|----------------|----------|
|        |        |       | Colour |       |       | Bottom       | We  | Well Design <sup>1</sup> |     |            | Packing |         |                |          |
|        | REF    | Clear | Black  | White | Solid | µClear® film | F/C | U                        | V   | Surface    | Size    | Sterile | Lid            | Material |
| 6      | 657185 | ٠     |        |       | ٠     |              | ٠   |                          |     | suspension | 1/100   | ٠       | • <sup>3</sup> | PS       |
| 12     | 665102 | ٠     |        |       | ٠     |              | ٠   |                          |     | suspension | 1/100   | ٠       | • <sup>3</sup> | PS       |
| 24     | 662102 | ٠     |        |       | ٠     |              | •   |                          |     | suspension | 1/100   | ٠       | • <sup>3</sup> | PS       |
| 48     | 677102 | ٠     |        |       | ٠     |              | •   |                          |     | suspension | 1/100   | ٠       | • <sup>3</sup> | PS       |
| _      |        |       | Colour |       |       | Bottom       | We  | II Desig                 | gn¹ |            | Packing |         |                |          |
| EL/    | REF    | Clear | Black  | White | Solid | µClear® film | F/C | U                        | V   | Surface    | Size    | Sterile | Lid            | Material |
| 8<br>8 | 650185 | ٠     |        |       | •     |              |     | ٠                        |     | suspension | 1/60    | ٠       | ٠              | PS       |
| 6      | 655185 | ٠     |        |       | ٠     |              | •   |                          |     | suspension | 1/60    | ٠       | • <sup>3</sup> | PS       |

### CELLSTAR<sup>®</sup> Cell-Repellent Surface

|     | OLLLO      |       |        |       |       |              |     |           |                 |                      |         |         |                |          |  |
|-----|------------|-------|--------|-------|-------|--------------|-----|-----------|-----------------|----------------------|---------|---------|----------------|----------|--|
|     |            |       | Colour |       |       | Bottom       | We  | ell Desig | jn <sup>1</sup> |                      | Packing |         |                |          |  |
|     | REF        | Clear | Black  | White | Solid | µClear® film | F   | U         | V               | Surface <sup>2</sup> | Size    | Sterile | Lid            | Material |  |
| 9   | 657970     | ٠     |        |       | •     |              | •   |           |                 | cell-rep.            | 1/5     | ٠       | • <sup>3</sup> | PS       |  |
| 24  | 662970     | ٠     |        |       | ٠     |              | •   |           |                 | cell-rep.            | 1/5     | •       | • <sup>3</sup> | PS       |  |
| 48  | 677970     | ٠     |        |       | •     |              | •   |           |                 | cell-rep.            | 1/5     | ٠       | • <sup>3</sup> | PS       |  |
|     |            |       | Colour |       |       | Bottom       | We  | ell Desig | jn¹             |                      | Packing |         |                |          |  |
|     | REF        | Clear | Black  | White | Solid | µClear® film | F/C | U         | V               | Surface <sup>2</sup> | Size    | Sterile | Lid            | Material |  |
|     | 655970     | ٠     |        |       | •     |              | •   |           |                 | cell-rep.            | 1/6     | ٠       | • <sup>3</sup> | PS       |  |
| ΝE  | 650970     | ٠     |        |       | ٠     |              |     | ٠         |                 | cell-rep.            | 1/6     | ٠       | ٠              | PS       |  |
| 90  | 651970     | ٠     |        |       | ٠     |              |     |           | ٠               | cell-rep.            | 1/6     | ٠       | ٠              | PS       |  |
|     | 655976     |       | ٠      |       |       | •            | •   |           |                 | cell-rep.            | 8/32    | ٠       | • <sup>3</sup> | PS       |  |
|     | 655976-SIN |       | ٠      |       |       | •            | •   |           |                 | cell-rep.            | 1/32    | ٠       | • <sup>3</sup> | PS       |  |
| _   |            |       | Colour |       |       | Bottom       | We  | ell Desig | jn¹             |                      | Packing |         |                |          |  |
| ELI | REF        | Clear | Black  | White | Solid | µClear®      | F   | ι         | J               | Surface <sup>2</sup> | Size    | Sterile | Lid            | Material |  |
| ≥   | 781970     | ٠     |        |       | ٠     |              | ٠   |           |                 | cell-rep.            | 1/60    | ٠       | ٠              | PS       |  |
| 84  | 781976     |       | ٠      |       |       | ٠            | •   |           |                 | cell-rep.            | 8/32    | •       | ٠              | PS       |  |
| 3   | 781976-SIN |       | ٠      |       |       | •            | •   |           |                 | cell-rep.            | 1/32    | •       | ٠              | PS       |  |
|     | 787979     | ٠     |        |       | ٠     |              |     | •         |                 | cell-rep.            | 8/32    | ٠       | ٠              | PS       |  |

Explanation of different well designs and abbrevations on p. 30
 Cell-rep. = cell-repellent surface
 Lid with condensation rings



### Non-treated

|        | Colour              | Bottom        | W     | /ell Design | 1         |             | Packing |         |     |          |
|--------|---------------------|---------------|-------|-------------|-----------|-------------|---------|---------|-----|----------|
| REF    | Clear Black White   | Solid µClear® | F F/C | HA U        | JV        | Surface     | Size    | Sterile | Lid | Material |
|        |                     |               | Po    | olystyrene  | micropla  | tes         |         |         |     |          |
| 655101 | •                   | •             | •     |             |           | non-treated | 10/100  |         |     | PS       |
| 655161 | •                   | •             | •     |             |           | non-treated | 2/100   | ٠       |     | PS       |
| 675101 | •                   | •             |       | ٠           |           | non-treated | 10/40   |         |     | PS       |
| 675161 | •                   | •             |       | ٠           |           | non-treated | 10/40   | ٠       |     | PS       |
| 650101 | •                   | •             |       |             | •         | non-treated | 10/100  |         |     | PS       |
| 650161 | •                   | •             |       |             |           | non-treated | 2/100   | ٠       |     | PS       |
| 651101 | •                   | •             |       |             | ٠         | non-treated | 10/100  |         |     | PS       |
| 651161 | •                   | •             |       |             | ٠         | non-treated | 2/100   | ٠       |     | PS       |
| 655076 | •                   | •             | •     |             |           | non-treated | 10/40   |         |     | PS       |
| 675076 | •                   | •             |       | ٠           |           | non-treated | 10/40   |         |     | PS       |
| 655096 | •                   | •             | •     |             |           | non-treated | 10/40   |         |     | PS       |
| 675096 | •                   | •             |       | ٠           |           | non-treated | 10/40   |         |     | PS       |
| 655075 | •                   | •             | •     |             |           | non-treated | 10/40   |         |     | PS       |
| 675075 | •                   | •             |       | ٠           |           | non-treated | 10/40   |         |     | PS       |
| 655095 | •                   | •             | •     |             |           | non-treated | 10/40   |         |     | PS       |
| 675095 | •                   | •             |       | ٠           |           | non-treated | 10/40   |         |     | PS       |
|        | Colour              | Bottom        | V     | /ell Design | 1         |             | Packing |         |     |          |
| REF    | Natural Black White | Solid µClear® | F/C   | U/C         | V/C       | Surface     | Size    | Sterile | Lid | Material |
|        |                     |               | Pol   | ypropylene  | e micropl | ates        |         |         |     |          |
| 655201 | •                   | •             | •     |             |           | non-treated | 10/100  |         |     | PP       |
| 650201 | •                   | •             |       | •           |           | non-treated | 10/100  |         |     | PP       |
| 650261 | •                   | •             |       | ٠           |           | non-treated | 10/100  | ٠       |     | PP       |
| 651201 | •                   | •             |       |             | ٠         | non-treated | 10/100  |         |     | PP       |
| 655209 | •                   | •             | •     |             |           | non-treated | 10/100  |         |     | PP       |
| 650209 | •                   | •             |       | •           |           | non-treated | 10/100  |         |     | PP       |
| 651209 | •                   | •             |       |             | ٠         | non-treated | 10/100  |         |     | PP       |
| 655207 | •                   | •             | •     |             |           | non-treated | 10/100  |         |     | PP       |
| 650207 | •                   | •             |       | ٠           |           | non-treated | 10/100  |         |     | PP       |

1) Explanation of different well designs and abbrevations on p. 30

 $\rightarrow$  Further **polypropylene microplates** on p. 28.

#### SCREENING (ABSORBANCE / LUMINESCENCE / FLUORESCENCE) (→ p. 8-9)

### Non-treated

|     |            |                    |          |       |               |    | Well D | )esign <sup>1</sup> |    |             |         |         |     |          |
|-----|------------|--------------------|----------|-------|---------------|----|--------|---------------------|----|-------------|---------|---------|-----|----------|
|     |            |                    | Colour   |       | Bottom        |    |        | SV                  | SV |             | Packing |         |     |          |
|     | REF        | Clear /<br>Natural | Black    | White | Solid µClear® | F  | V      | Hi                  | Lo | Surface     | Size    | Sterile | Lid | Material |
|     | Polystyre  | ne micro           | plates   |       |               |    |        |                     |    |             |         |         |     |          |
|     | 781101     | ٠                  |          |       | •             | •  |        |                     |    | non-treated | 10/100  |         |     | PS       |
|     | 781162     | ٠                  |          |       | •             | ٠  |        |                     |    | non-treated | 10/100  | •       |     | PS       |
|     | 781185     | •                  |          |       | •             | •  |        |                     |    | non-treated | 1/32    | •       | •   | PS       |
|     | 781186     | ٠                  |          |       | •             | •  |        |                     |    | non-treated | 8/32    | •       | ٠   | PS       |
|     | 784101     | ٠                  |          |       | •             |    |        | ٠                   |    | non-treated | 10/40   |         |     | PS       |
|     | 788101     | •                  |          |       | •             |    |        |                     | ٠  | non-treated | 10/80   |         |     | PS       |
|     | 788161     | •                  |          |       | •             |    |        |                     | •  | non-treated | 10/80   | •       |     | PS       |
|     | 781076     |                    | ٠        |       | •             | •  |        |                     |    | non-treated | 10/40   |         |     | PS       |
|     | 784076     |                    | •        |       | •             |    |        | •                   |    | non-treated | 10/40   |         |     | PS       |
| Ľ   | 784076-25  |                    | •        |       | •             |    |        | •                   |    | non-treated | 25/150  |         |     | PS       |
| ш   | 788076     |                    | •        |       | •             |    |        |                     | •  | non-treated | 10/80   |         |     | PS       |
| ≥   | 781096     |                    | •        |       | •             | •  |        |                     | -  | non-treated | 10/40   |         |     | PS       |
| 384 | 788096     |                    | •        |       | •             | -  |        |                     | •  | non-treated | 10/40   |         |     | PS       |
| 0   | 781075     |                    | *        | •     | •             | •  |        |                     | *  | non-treated | 10/40   |         |     | PS       |
|     | 781095     |                    |          | •     | •             | •  |        |                     |    | non-treated | 10/40   |         |     | PS       |
|     | 784075     |                    |          | •     | •             | •  |        | •                   |    |             | 10/40   |         |     | PS       |
|     |            |                    |          |       |               |    |        |                     |    | non-treated |         |         |     |          |
|     | 784075-25  |                    |          | •     | •             |    |        | •                   | -  | non-treated | 25/150  |         |     | PS       |
|     | 788075     |                    |          | •     | •             |    |        |                     | •  | non-treated | 10/80   |         |     | PS       |
|     | 788095     |                    |          | •     | ٠             |    |        |                     | •  | non-treated | 10/80   |         |     | PS       |
|     | Polypropy  |                    | croplate | es    |               |    |        |                     |    |             |         |         |     |          |
|     | 781201     | •                  |          |       | •             | •  |        |                     |    | non-treated | 10/100  |         |     | PP       |
|     | 781280     | •                  |          |       | •             |    | •      |                     |    | non-treated | 10/100  |         |     | PP       |
|     | 781209     |                    | ٠        |       | •             | ٠  |        |                     |    | non-treated | 10/100  |         |     | PP       |
|     | 781289     |                    | •        |       | •             |    | •      |                     |    | non-treated | 10/100  |         |     | PP       |
|     | 781207     |                    |          | •     | •             | •  |        |                     |    | non-treated | 10/100  |         |     | PP       |
|     | 781287     |                    |          | ٠     | •             |    | ٠      |                     |    | non-treated | 10/100  |         |     | PP       |
|     |            |                    |          |       |               |    | Well D | esign <sup>1</sup>  |    |             |         |         |     |          |
|     |            |                    | Colour   |       | Bottom        | F  | F      | F                   | V  |             | Packing |         |     |          |
|     | REF        | Clear /<br>Natural | Black    | White | Solid µClear® | Hi | L      | .0                  | DW | Surface     | Size    | Sterile | Lid | Material |
|     | Polystyrer | ne micro           | plates   |       |               |    |        |                     |    |             |         |         |     |          |
|     | 782101     | ٠                  |          |       | •             | ٠  |        |                     |    | non-treated | 15/60   |         |     | PS       |
|     | 783101     | •                  |          |       | •             |    |        | •                   |    | non-treated | 15/60   |         |     | PS       |
| ELL | 782076     |                    | ٠        |       | •             | ٠  |        |                     |    | non-treated | 15/60   |         |     | PS       |
| N E | 783076     |                    | •        |       | •             |    | (      | •                   |    | non-treated | 15/60   |         |     | PS       |
| 9   | 782096     |                    | •        |       | •             | ٠  |        |                     |    | non-treated | 15/60   |         |     | PS       |
| 53  | 783096     |                    | ٠        |       | •             |    |        | •                   |    | non-treated | 15/60   |         |     | PS       |
|     | 782075     |                    |          | •     | •             | •  |        |                     |    | non-treated | 15/60   |         |     | PS       |
|     | 783075     |                    |          | •     | •             |    |        | •                   |    | non-treated | 15/60   |         |     | PS       |
|     | 782095     |                    |          | •     | •             | •  |        |                     |    | non-treated | 15/60   |         |     | PS       |
|     | Polypropy  | lene mi            | cronlate |       | -             | -  |        |                     |    |             | 10,00   |         |     | . 0      |
|     | 782270     | •                  | opiati   |       | •             |    |        |                     |    | non-treated | 15/60   |         |     | PP       |
|     | 102210     |                    |          |       |               |    |        |                     | -  | non-treated | 15/60   | •       |     | PP       |
|     | 782261     | •                  |          |       | •             |    |        |                     | •  |             |         |         |     |          |

 $\rightarrow$  Further **polypropylene microplates** on p. 28.

#### SCREENING (ABSORBANCE / LUMINESCENCE / FLUORESCENCE) (→ p. 8-9)

## High binding / sterile

|        |        | Colour            | Bottom        | Well Design <sup>1</sup> |              | Packing |         |     |          |
|--------|--------|-------------------|---------------|--------------------------|--------------|---------|---------|-----|----------|
|        | REF    | Clear Black White | Solid µClear® | F/C HA                   | Surface      | Size    | Sterile | Lid | Material |
| _      | 655077 | •                 | •             | •                        | high binding | 10/40   | ٠       |     | PS       |
| / E L  | 675077 | •                 | •             | ٠                        | high binding | 10/40   | ٠       |     | PS       |
| 6 W    | 655097 | •                 | ٠             | •                        | high binding | 10/40   | ٠       |     | PS       |
| 6      | 655074 | •                 | •             | •                        | high binding | 10/40   | ٠       |     | PS       |
|        | 675074 | •                 | •             | •                        | high binding | 10/40   | ٠       |     | PS       |
|        | 655094 | •                 | ٠             | •                        | high binding | 10/40   | ٠       |     | PS       |
|        |        | Colour            | Bottom        | Well Design <sup>1</sup> |              | Packing |         |     |          |
|        | REF    | Clear Black White | Solid µClear® | F                        | Surface      | Size    | Sterile | Lid | Material |
| e II   | 781061 | •                 | •             | ٠                        | high binding | 10/40   | ٠       |     | PS       |
| × t    | 781077 | •                 | •             | ٠                        | high binding | 10/40   | ٠       |     | PS       |
| 384    | 781097 | •                 | ٠             | •                        | high binding | 10/40   | •       |     | PS       |
|        | 781074 | •                 | •             | •                        | high binding | 10/40   | •       |     | PS       |
|        | 781094 | •                 | ٠             | ٠                        | high binding | 10/40   | ٠       |     | PS       |
|        |        |                   |               | Well Design <sup>1</sup> |              |         |         |     |          |
|        |        | Colour            | Bottom        | F                        |              | Packing |         |     |          |
| ELL    | REF    | Clear Black White | Solid µClear® | Hi                       | Surface      | Size    | Sterile | Lid | Material |
| N<br>N | 782061 | •                 | •             | •                        | high binding | 15/60   | ٠       |     | PS       |
| 36     | 782077 | •                 | •             | ٠                        | high binding | 15/60   | ٠       |     | PS       |
| 150    | 782097 | •                 | •             | ٠                        | high binding | 15/60   | •       |     | PS       |
|        | 782074 | •                 | •             | •                        | high binding | 15/60   | •       |     | PS       |
|        | 782094 | •                 | •             | •                        | high binding | 15/60   | •       |     | PS       |

SCREENING (ABSORBANCE / LUMINESCENCE / FLUORESCENCE) ( $\rightarrow$  p. 8-9)

## Non-binding

|            |        | Colour            | Bottom        | We  | ll Design <sup>1</sup> |   |             | Packing |         |     |          |
|------------|--------|-------------------|---------------|-----|------------------------|---|-------------|---------|---------|-----|----------|
|            | REF    | Clear Black White | Solid µClear® | F/C | U V                    | V | Surface     | Size    | Sterile | Lid | Material |
|            | 655901 | •                 | •             | •   |                        |   | non-binding | 10/40   |         |     | PS       |
| WELL       | 650901 | •                 | •             |     | •                      |   | non-binding | 10/40   |         |     | PS       |
| N          | 651901 | •                 | •             |     | •                      | • | non-binding | 10/40   |         |     | PS       |
| 96         | 655900 | •                 | •             | ٠   |                        |   | non-binding | 10/40   |         |     | PS       |
|            | 655906 | •                 | ٠             | ٠   |                        |   | non-binding | 10/40   |         |     | PS       |
|            | 655904 | ٠                 | •             | ٠   |                        |   | non-binding | 10/40   |         |     | PS       |
|            | 655903 | •                 | •             | ٠   |                        |   | non-binding | 10/40   |         |     | PS       |
|            |        |                   |               | We  | ll Design <sup>1</sup> |   |             |         |         |     |          |
|            |        | Colour            | Bottom        |     | SV                     |   |             | Packing |         |     |          |
|            | REF    | Clear Black White | Solid µClear® | F   | Hi                     |   | Surface     | Size    | Sterile | Lid | Material |
| Ľ          | 781901 | •                 | •             | ٠   |                        |   | non-binding | 10/40   |         |     | PS       |
| WEI        | 781900 | •                 | •             | •   |                        |   | non-binding | 10/40   |         |     | PS       |
| 4          | 784900 | •                 | •             |     | •                      |   | non-binding | 10/40   |         |     | PS       |
| 38         | 781906 | •                 | •             | •   |                        |   | non-binding | 10/40   |         |     | PS       |
|            | 781904 | ٠                 | •             | •   |                        |   | non-binding | 10/40   |         |     | PS       |
|            | 784904 | ٠                 | •             |     | •                      |   | non-binding | 10/40   |         |     | PS       |
|            | 781903 | ٠                 | •             | •   |                        |   | non-binding | 10/40   |         |     | PS       |
|            |        |                   |               | We  | ll Design <sup>1</sup> |   |             |         |         |     |          |
| /ELL       |        | Colour            | Bottom        |     | F                      |   |             | Packing |         |     |          |
| 6 W I      | REF    | Clear Black White | Solid µClear® |     | Hi                     |   | Surface     | Size    | Sterile | Lid | Material |
| 53(        | 782900 | •                 | •             |     | •                      |   | non-binding | 15/60   |         |     | PS       |
| - <b>-</b> | 782904 | •                 | •             |     | •                      |   | non-binding | 15/60   |         |     | PS       |

### UV Spectroscopy (UV-Star®)

|       |        |                   | (0100      |      |                     |         |         |         |     |                       |
|-------|--------|-------------------|------------|------|---------------------|---------|---------|---------|-----|-----------------------|
| _     |        | Colour            | Bottom     | Well | Design <sup>1</sup> |         | Packing |         |     |                       |
| / E L | REF    | Clear Black White | Solid Film | F/C  | HA                  | Surface | Size    | Sterile | Lid | Material <sup>2</sup> |
| 6 V   | 655801 | •                 | •          | ٠    |                     |         | 10/40   |         |     | COC                   |
| 6     | 675801 | •                 | •          |      | •                   |         | 10/40   |         |     | COC                   |
| _     |        | Colour            | Bottom     | Well | Design <sup>1</sup> |         | Packing |         |     |                       |
| WEL   | REF    | Clear Black White | Solid Film | F    | SV                  | Surface | Size    | Sterile | Lid | Material <sup>2</sup> |
| 384 V | 781801 | •                 | •          | ٠    |                     |         | 10/40   |         |     | COC                   |
| ë     | 788876 | ٠                 | •          |      | •                   |         | 10/80   |         |     | COC                   |

Explanation of different well designs and abbrevations on p. 30
 COC = Cycloolefin co-polymer

1) Explanation of different well designs and abbrevations on p. 30

#### IMMUNOLOGY (→ p. 10-11)

### Medium binding

| Mediu       |                  | nung       | 1     |   |     |         |        |   |   |                      |         |     | Ý        |
|-------------|------------------|------------|-------|---|-----|---------|--------|---|---|----------------------|---------|-----|----------|
|             |                  | Colour     |       |   |     | Well De | esign² |   |   |                      | Packing |     |          |
| REF         | Clear            | Black      | White | F | F/C | HA      | U      | V | С | Surface <sup>3</sup> | Size    | Lid | Material |
| Standard E  | LISA Mi          | icroplate  | s     |   |     |         |        |   |   |                      |         |     |          |
| 655001      | •                |            |       | • |     |         |        |   |   | med. bind            | 10/40   |     | PS       |
| 655080      | •                |            |       |   | •   |         |        |   |   | med. bind            | 10/40   |     | PS       |
| 675001      | •                |            |       |   |     | ٠       |        |   |   | med. bind            | 10/40   |     | PS       |
| 650001      | •                |            |       |   |     |         | ٠      |   |   | med. bind            | 10/40   |     | PS       |
| 651001      | ٠                |            |       |   |     |         |        | ٠ |   | med. bind            | 10/40   |     | PS       |
| F8 / U8 Str | ip Plates        | S          |       |   |     |         |        |   |   |                      |         |     |          |
| 762070      | •                |            |       | • |     |         |        |   |   | med. bind            | 10/100  |     | PS       |
| 767070      | •                |            |       |   |     |         | ٠      |   |   | med. bind            | 10/100  |     | PS       |
| 762076      |                  | ٠          |       | ٠ |     |         |        |   |   | med. bind            | 10/100  |     | PS       |
| 762075      |                  |            | ٠     | ٠ |     |         |        |   |   | med. bind            | 10/100  |     | PS       |
| C8 Single-I | Break St         | trip Plate | s     |   |     |         |        |   |   |                      |         |     |          |
| 705070      | •                |            |       |   |     |         |        |   | • | med. bind            | 10/100  |     | PS       |
| 705063      | • <sup>1</sup>   |            |       |   |     |         |        |   | • | med. bind            | 10/100  |     | PS       |
| 705065      | •1               |            |       |   |     |         |        |   | • | med. bind            | 10/100  |     | PS       |
| 705066      | <mark>•</mark> 1 |            |       |   |     |         |        |   | • | med. bind            | 10/100  |     | PS       |
| F16 / U16 S | Strip Pla        | tes        |       |   |     |         |        |   |   |                      |         |     |          |
| 756070      | ٠                |            |       | ٠ |     |         |        |   |   | med. bind            | 10/100  |     | PS       |
| 754070      | ٠                |            |       |   |     |         | ٠      |   |   | med. bind            | 10/100  |     | PS       |

#### IMMUNOLOGY (→ p. 10-11)

### Streptavidin Coating

|     | ouop         |                              |                  |                          |                      |         |         |     |          |
|-----|--------------|------------------------------|------------------|--------------------------|----------------------|---------|---------|-----|----------|
|     |              | Colour                       | Bottom           | Well Design <sup>1</sup> |                      | Packing |         |     |          |
| LL  | REF          | Clear Black White            | Solid            | C bottom                 | Surface              | Size    | Sterile | Lid | Material |
| Ν   | 655990       | •                            | •                | ٠                        | Streptavidin         | 5/40    |         |     | PS       |
| 96  | 655997       | •                            | •                | ٠                        | Streptavidin         | 5/40    |         |     | PS       |
|     | 655995       | •                            | •                | •                        | Streptavidin         | 5/40    |         |     | PS       |
| _   |              | Colour                       | Bottom           | Well Design <sup>1</sup> |                      | Packing |         |     |          |
| ELI | REF          | Clear Black White            | Solid            | F bottom                 | Surface <sup>2</sup> | Size    | Sterile | Lid | Material |
| ≥   | 781990       | •                            | •                | ٠                        | Streptavidin         | 5/40    |         |     | PS       |
| 84  | 781997       | ٠                            | •                | ٠                        | Streptavidin         | 5/40    |         |     | PS       |
| e   | 781995       | •                            | •                | •                        | Streptavidin         | 5/40    |         |     | PS       |
|     | 1) Evelopeti | on of different well designs | and abbroustions | ann 20                   |                      |         |         |     |          |

1) Explanation of different well designs and abbrevations on p. 30

## **Covalent binding**

Microplates with a **covalent binding** surface can be ordered on request. Please contact your sales representative for more information.

WELL

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WELL

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## High binding

|               |                | Colour         |       |            |     | Well D | esign <sup>2</sup> |   |   |                      | Packing |     |          |
|---------------|----------------|----------------|-------|------------|-----|--------|--------------------|---|---|----------------------|---------|-----|----------|
| REF           | Clear          | Black          | White | F          | F/C | HA     | U                  | V | С | Surface <sup>3</sup> | Size    | Lid | Material |
| Standard      | ELISA M        | icroplate      | S     |            |     |        |                    |   |   |                      |         |     |          |
| 655061        | •              |                |       | ٠          |     |        |                    |   |   | high bind            | 10/40   |     | PS       |
| 655081        | •              |                |       |            | •   |        |                    |   |   | high bind            | 10/40   |     | PS       |
| 675061        | •              |                |       |            |     | ٠      |                    |   |   | high bind            | 10/40   |     | PS       |
| 650061        | •              |                |       |            |     |        | •                  |   |   | high bind            | 10/40   |     | PS       |
| 651061        | ٠              |                |       |            |     |        |                    | ٠ |   | high bind            | 10/40   |     | PS       |
| F8 / U8 St    | rip Plates     | S              |       |            |     |        |                    |   |   |                      |         |     |          |
| 762071        | •              |                |       | ٠          |     |        |                    |   |   | high bind            | 10/100  |     | PS       |
| 767071        | •              |                |       |            |     |        | •                  |   |   | high bind            | 10/100  |     | PS       |
| 762077        |                | ٠              |       | ٠          |     |        |                    |   |   | high bind            | 10/100  |     | PS       |
| 762074        |                |                | ٠     | ٠          |     |        |                    |   |   | high bind            | 10/100  |     | PS       |
| C8 Single-    | Break St       | trip Plate     | S     |            |     |        |                    |   |   |                      |         |     |          |
| 705071        | ٠              |                |       |            |     |        |                    |   | ٠ | high bind            | 10/100  |     | PS       |
| 705073        | • <sup>1</sup> |                |       |            |     |        |                    |   | ٠ | high bind            | 10/100  |     | PS       |
| 705074        | •1             |                |       |            |     |        |                    |   | ٠ | high bind            | 10/100  |     | PS       |
| 705075        | • <sup>1</sup> |                |       |            |     |        |                    |   | ٠ | high bind            | 10/100  |     | PS       |
| 705076        | •1             |                |       |            |     |        |                    |   | ٠ | high bind            | 10/100  |     | PS       |
| F16 / U16     | Strip Pla      | tes            |       |            |     |        |                    |   |   |                      |         |     |          |
| 756071        | ٠              |                |       | ٠          |     |        |                    |   |   | high bind            | 10/100  |     | PS       |
| 754061        | ٠              |                |       |            |     |        | •                  |   |   | high bind            | 10/100  |     | PS       |
| 1) Colour cor | line of EU     | CA atvina nale |       | uitte 🔴 mo |     |        |                    |   |   |                      |         |     |          |

Colour coding of ELISA strip plates: clear with • red / • green / • yellow / • blue rim
 Explanation of different well designs and abbrevations on p. 30
 Med. bind = medium binding surface; high bind = high binding surface

→ Non-treated microplates and further high binding microplates on p. 22-24.



#### STORAGE PLATES ( $\rightarrow$ p. 12)

### **Polypropylene microplates**

|        | Colour              | Bottom | We  | II Design <sup>1</sup> |     |             | Packing |         |     |         |
|--------|---------------------|--------|-----|------------------------|-----|-------------|---------|---------|-----|---------|
| REF    | Natural Black White | Solid  | F/C | U/C                    | V/C | Description | Size    | Sterile | Lid | Materia |
| 655201 | •                   | ٠      | •   |                        |     |             | 10/100  |         |     | PP      |
| 650201 | •                   | ٠      |     | ٠                      |     |             | 10/100  |         |     | PP      |
| 650261 | •                   | •      |     | ٠                      |     |             | 10/100  | ٠       |     | PP      |
| 651201 | •                   | •      |     |                        | ٠   |             | 10/100  |         |     | PP      |
| 655209 | •                   | ٠      | •   |                        |     |             | 10/100  |         |     | PP      |
| 650209 | •                   | •      |     | ٠                      |     |             | 10/100  |         |     | PP      |
| 651209 | •                   | •      |     |                        | ٠   |             | 10/100  |         |     | PP      |
| 655207 | •                   | •      | •   |                        |     |             | 10/100  |         |     | PP      |
| 650207 | •                   | •      |     | ٠                      |     |             | 10/100  |         |     | PP      |

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| /EL    | 650207     | •                   | •      |            | •                   |                       | 10/100  |         |     | PP       |
|--------|------------|---------------------|--------|------------|---------------------|-----------------------|---------|---------|-----|----------|
| 6 W    |            |                     |        | Polypropyl | ene MASTERB         | BLOCK®                |         |         |     |          |
| 6      |            | Colour              | Bottom | Well D     | Design <sup>1</sup> |                       | Packing |         |     |          |
|        | REF        | Natural Black White | Solid  | U          | V                   | Volume                | Size    | Sterile | Lid | Material |
|        | 786201     | •                   | ٠      |            | •                   | 0.5 ml                | 8/80    |         |     | PP       |
|        | 786261     | •                   | •      |            | ٠                   | 0.5 ml                | 1/80    | ٠       |     | PP       |
|        | 780201     | •                   | •      | •          |                     | 1 ml                  | 1/50    |         |     | PP       |
|        | 780215     | •                   | ٠      | •          |                     | 1 ml                  | 5/50    |         |     | PP       |
|        | 780261     | •                   | •      | •          |                     | 1 ml                  | 1/50    | ٠       |     | PP       |
|        | 780270     | •                   | •      |            | •                   | 2 ml                  | 1/50    |         |     | PP       |
|        | 780285     | •                   | ٠      |            | ٠                   | 2 ml                  | 5/50    |         |     | PP       |
|        | 780271     | •                   | •      |            | ٠                   | 2 ml                  | 1/50    | ٠       |     | PP       |
|        |            |                     |        | Well D     | Design <sup>1</sup> |                       |         |         |     |          |
|        |            | Colour              | Bottom | D          | W DW                |                       | Packing |         |     |          |
|        | REF        | Natural Black White | Solid  | F V S      | V V                 | Description           | Size    | Sterile | Lid | Material |
|        | 781201     | •                   | •      | •          |                     |                       | 10/100  |         |     | PP       |
| _      | 781201-906 | 5 •                 | •      | •          |                     | for ac. liquid handl. | 10/100  |         |     | PP       |
| ELI    | 781280     | •                   | •      | •          |                     |                       | 10/100  |         |     | PP       |
| $\geq$ | 784201     | •                   | ٠      |            | •                   |                       | 10/100  |         |     | PP       |
| 84     | 781270     | •                   | ٠      |            | •                   | MASTERBLOCK®          | 6/60    |         |     | PP       |
| с<br>С | 781271     | •                   | ٠      |            | •                   | MASTERBLOCK®          | 6/60    | ٠       |     | PP       |
|        | 781209     | •                   | ٠      | •          |                     |                       | 10/100  |         |     | PP       |
|        | 781289     | •                   | •      | •          |                     |                       | 10/100  |         |     | PP       |
|        | 781207     | •                   | ٠      | •          |                     |                       | 10/100  |         |     | PP       |
|        | 781287     | •                   | •      | •          |                     |                       | 10/100  |         |     | PP       |
|        |            |                     |        | Well D     | Design <sup>1</sup> |                       |         |         |     |          |
| 'ELL   |            | Colour              | Bottom | D          | W                   |                       | Packing |         |     |          |
| 6 M    | REF        | Natural Black White | Solid  | ١          | V                   | Description           | Size    | Sterile | Lid | Material |
| 536    | 782270     | •                   | ٠      |            | •                   |                       | 15/60   |         |     | PP       |
|        |            |                     |        |            |                     |                       |         |         |     |          |

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STORAGE PLATES

### Cycloolefin microplates (for acoustic liquid handling)

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|           |            | Colour            | Bottom    | Well Design <sup>1</sup> |             | Packing |         |     |          |
|-----------|------------|-------------------|-----------|--------------------------|-------------|---------|---------|-----|----------|
| 384<br>EL | REF        | Clear Black White | Solid     | SV                       | Description | Size    | Sterile | Lid | Material |
| е Х<br>В  | 793855     | •                 | •         | •                        |             | 15/60   |         |     | COC      |
|           |            | Colour            | Bottom    | Well Design <sup>1</sup> |             | Packing |         |     |          |
| 36<br>LL  | REF        | Clear Black White | Solid     | F                        | Description | Size    | Sterile | Lid | Material |
| 15<br>VE  | 782855     | •                 | ٠         | •                        |             | 15/60   |         |     | COC      |
|           | 792870-906 | •                 | ٠         | •                        |             | 15/60   |         |     | COP      |
|           |            | C 1100 1 11 11 1  | 1 1 1 1 1 |                          |             |         |         |     |          |

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15/60

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PP

Explanation of different well designs and abbrevations on p. 30; DW = Deep Well

→ Polypropylene microplates also on p. 22-23. 28

#### MICROSCOPY ( $\rightarrow$ p. 13)

## Glass bottom microplates (SensoPlate<sup>™</sup> / SensoPlate<sup>™</sup> Plus)

|            |        | Colour            | Bottom      | We  | II Design <sup>1</sup> | I      | Surface /                | Packing |         |     |          |
|------------|--------|-------------------|-------------|-----|------------------------|--------|--------------------------|---------|---------|-----|----------|
|            | REF    | Clear Black White | Solid Glass | F   |                        | F/C    | Description <sup>2</sup> | Size    | Sterile | Lid | Material |
| 24         | 662892 | •                 | •           | ٠   |                        |        |                          | 1/12    | ٠       | ٠   | PS       |
| 96<br>WELL | 655892 | ٠                 | •           | ٠   |                        |        |                          | 1/16    | ٠       | ٠   | PS       |
| 9<br>M E   | 655891 | •                 | •           |     |                        | •      | TC, SP+                  | 1/16    | ٠       | ٠   | PS       |
|            |        | Colour            | Bottom      | We  | ell Design             |        |                          |         |         |     |          |
| L          |        |                   |             | S   | SV V                   | F      | Surface /                | Packing |         |     |          |
| ΝE         | REF    | Clear Black White | Solid Glass | F L | .o x                   | tra Lo | Description <sup>2</sup> | Size    | Sterile | Lid | Material |
| 4          | 781892 | •                 | •           | •   |                        |        |                          | 1/16    | •       | ٠   | PS       |
| 3 8        | 781856 | •                 | •           |     |                        | •      | SP+                      | 1/16    |         |     | PS       |
|            | 788896 | ٠                 | •           |     | •                      |        |                          | 1/16    | •       |     | PS       |
|            |        | Colour            | Bottom      | We  | ell Design             |        |                          |         |         |     |          |
| ELL        |        |                   |             | F   | F                      | F      | Surface /                | Packing |         |     |          |
| N N        | REF    | Clear Black White | Solid Glass | Hi  | Lo x                   | tra Lo | Description <sup>2</sup> | Size    | Sterile | Lid | Material |
| 36         | 782892 | ٠                 | •           | ٠   |                        |        |                          | 1/16    | •       | ٠   | PS       |
| 1 5        | 783892 | •                 | ٠           |     | •                      |        |                          | 1/16    | •       | ٠   | PS       |
|            | 783856 | •                 | •           |     |                        | •      | SP+                      | 4/16    |         |     | PS       |

### Cycloolefin film bottom microplates (SCREENSTAR)

|        | Colour            | Bottom   | Well Design <sup>1</sup>   |   | Packing  |   |   |   |
|--------|-------------------|--|--|---|--|---|---|---|
| REF    | Clear Black White | Solid CO Film  | F/C  | Surface <sup>2</sup>  | Size   | Sterile   | Lid   | Material  |
| 655866 | ٠                 | ٠  | ٠  | TC  | 1/16   | ٠   | •   | COP   |
|        | Colour            | Bottom   | Well Design <sup>1</sup>   |   | Packing  |   |   |   |
| REF    | Clear Black White | Solid CO Film  | F  | Surface   | Size   | Sterile   | Lid   | Material  |
| 789836 | ٠                 | ٠  | ٠  | TC  | 10/40  | •   | • <sup>3</sup>  | COP   |
|        | Colour            | Bottom   | Well Design <sup>1</sup>   |   |  |   |   |   |
|        |                   |  |  |   | Packing  |   |   |   |
| REF    | Clear Black White | Solid CO Film  | F  | Surface   | Size   | Sterile   | Lid   | Material  |
| 789866 | •                 | •  | •  | TC  | 17/68  | •   |   | COP   |
| 7      | REF<br>89836      | REF Clear Black White<br>55866 Colour<br>REF Clear Black White<br>89836 Clear Black White<br>REF Clear Black White | REF     Clear     Black     White     Solid     CO       55866     •     •     •       Colour     Bottom       REF     Clear     Black     White     Solid     CO Film       89836     •     •     •     •       Colour     Bottom     •     •       REF     Clear     Black     White     Solid       REF     Clear     Black     White     Solid | REF     Clear Black White     Solid CO Film     F/C       55866     •     •     •       Colour     Bottom     Well Design'       REF     Clear Black White     Solid CO Film     F       89836     •     •     •       Colour     Bottom     Well Design'       REF     Clear Black White     Solid CO Film       REF     Clear Black White     Solid CO Film | REF       Clear Black White       Solid CO Film       F/C       Surface <sup>2</sup> 55866       •       •       •       TC         55866       •       •       •       TC         Colour       Bottom       Well Design <sup>1</sup> F       Surface         REF       Clear Black White       Solid CO Film       F       Surface         89836       •       •       •       TC         REF       Clear Black White       Solid CO Film       Well Design <sup>1</sup> TC         REF       Clear Black White       Solid CO Film       F       Surface | REF     Clear Black White     Solid CO Film     F/C     Surface <sup>2</sup> Size       55866     •     •     •     TC     1/16       Colour     Bottom     Well Design <sup>1</sup> Packing       REF     Clear Black White     Solid CO Film     F     Surface     Size       89836     •     •     •     10/40       Colour     Bottom     Well Design <sup>1</sup> TC     10/40       REF     Clear Black White     Solid CO Film     F     Surface     Size       89836     •     •     •     Packing       REF     Clear Black White     Solid CO Film     F     Surface     Size | REFClear Black WhiteSolid CO FilmF/CSurface <sup>2</sup> SizeSterile55866••••TC1/16•55866••••TC1/16•ColourBottomWell Design <sup>1</sup> PackingPackingSterileREFClear Black WhiteSolid CO FilmFSurfaceSizeSterile89836••••TC10/40•REFClear Black WhiteSolid CO FilmWell Design <sup>1</sup> PackingPackingREFClear Black WhiteSolid CO FilmFSurfaceSizeSterile | REFClear Black WhiteSolid CO FilmF/CSurface²SizeSterileLid55866•••••••••55866•••••TC1/16•••ColourBottomWell Design¹PackingPackingLidId••REFClear Black WhiteSolid CO FilmFSurfaceSizeSterileLid89836••••••••REFClourBottomWell Design¹rc10/40•••³REFClear Black WhiteSolid CO FilmFSurfaceSizeSterileLidREFClear Black WhiteSolid CO FilmFSurfaceSizeSterileLid |

1) Explanation of different well designs and abbrevations on p. 30

xtra Lo = extra LoBase

2) TC = Tissue culture treatment; SP+ = SensoPlate™ Plus 3) Ultra low profile lid

### µClear® film bottom microplates

Black and white µClear® microplates are available both non-treated (p. 22-23) and with a wide variety of surface properties and coatings (p. 18-21) well-suited for standard detection and microscopic applications.

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### Well Designs of Greiner Bio-One Microplates

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### 96 Well Microplates



F-Bottom

For precise optical measurements and microscopic applications (bottom reading)



For easy and residuefree pipetting

For precise pipetting



and sample storage

C-Bottom

Flat-bottom profile with rounded corners For residue-free

pipetting and precise

optical measurements

The standard microplate well has the same profile as the chimney well. The difference from the standard plate is the chimney-like arrangement of the wells. Each well stands on its own. Therefore the risk of sample carryover and cross

С

Half Area

HA

An alternative to the use of high-format microplates due to a reduction of the sample volume of up to 50 %

### \* / C Chimney Well

contamination is minimised.



#### 384 Well Microplates



F-Bottom

Small Volume<sup>™</sup> HiBase

SV Hi

• For top reading even at low working volumes

 Savings in reagents similar to 1536 well microplates

- For transmission/fluorescence/luminescence
- applications
- Excellent optical properties

#### 1536 Well Microplates





F-Bottom HiBase

- For top reading even at low working For bottom reading even at low volumes
- For transmission/fluorescence/ luminescence applications
- Excellent optical properties

þ<u>D</u>\_\_\_\_g F-Bottom

F Lo

LoBase

- working volumes • For transmission/fluorescence/
- luminescence applications • Excellent optical properties

- Small Volume<sup>™</sup>
- LoBase • For bottom reading even at low working volumes

SV Lo

- Savings in reagents similar to 1536 well microplates
- For transmission/fluorescence/luminescence applications
- Excellent optical properties







### Notes

### Interested in details?

For further information about microplates, well geometries and dimensions, please refer to our BioScience product catalogue (chapters 1-3).

Customer drawings and datasheets of each microplate can be downloaded as pdf files from our website **www.gbo.com**.

Just enter the respective article number into the search function of the website or browse in your desired product category.









Thomas Scientific, LLC Family of Companies

