



# CCadvanced® FN1 motifs cultureware

**Instructions for use**

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## 1 **Operating instructions**

### 1.1 **Using this manual**

Before using the consumables for the first time, read these instructions for use and the operating manual of the device that you use the consumables with. You can find the current version of every operating manual on the Internet at [www.eppendorf.com/manuals](http://www.eppendorf.com/manuals). These instructions for use do not replace the operating manual.

## 2 **Product description**



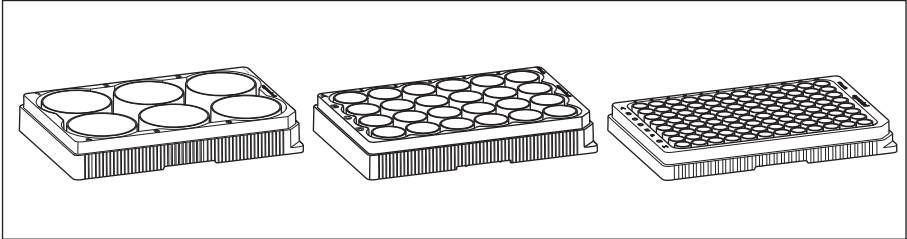
Additional support documentation, including lists of compatible cell types, cell dissociation methods and culture media and specific technical tips regarding hiPSC transition and expansion on CCCAdvanced FN1 motifs surface, is available on the Internet at [www.eppendorf.com/ccc-advanced-shop](http://www.eppendorf.com/ccc-advanced-shop).

### 2.1 **Features**

The Eppendorf CCCAdvanced FN1 motifs cultureware are new cell culture consumables based on a proprietary coating technology.

- Ready-to-use cell culture consumables for single-use
- Do not require any additional preparation or handling before use
- Made of synthetic RGD-based motifs
- Designed to mimic the cell attachment site of native extracellular matrix (ECM) proteins such as fibronectin
- Defined synthetic and xeno-free substrate (animal- and human-component-free) for culture of ECM anchorage-dependent cell types
- Suitable for culture of eukaryotic cells, especially pluripotent and multipotent stem cells, as well as expansion and differentiation even in restrictive (e.g. serum-free or synthetic media) cell culture conditions
- Allow undifferentiated pluripotent cell expansion for more than 25 passages
- Synthetic alternative to feeder cell-dependent culture system and to biological coatings
- Compatible with either classical cell dissociation methods, such as Trypsin/EDTA or xeno-free cell dissociation methods, such as Accutase and several TrypLE reagents
- Compatible with a broad range of commercial cell culture media including serum-free, xeno-free and animal-component-free cell culture media
- Compatible with cell-based assays and staining procedures
- No autofluorescence

## 2.2 Plates



### Sealing

The plates are delivered with a lid but can also be sealed with Eppendorf Storage Film or Eppendorf Storage Foil.

### Photometric measurements

The plates are suitable for photometric measurements and cell-based assays.

### Centrifugation

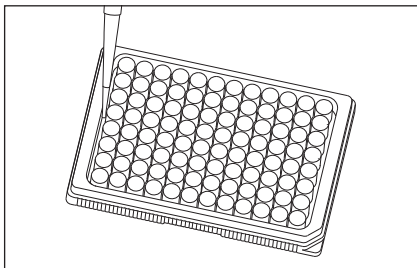
The plates are suitable for centrifugation. Centrifugation of plate stacks is also possible. See chapter Technical Data for specifications.

### Growth area

The optimized growth area of the 96-well plate results in an increased yield of the number of cells.

- ❗ Mind the comparatively large growth area/well. Depending on the cell system, more cells may be required for seeding in order to achieve the same cell density (cell number/ mm<sup>2</sup>) as in other 96-well plates.

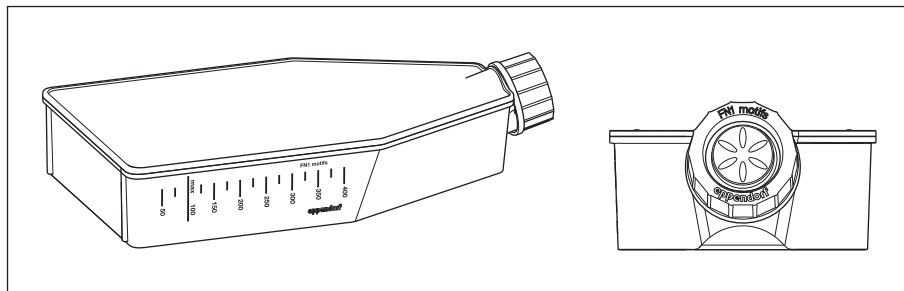
### Prevention of the edge effect



The 96-well plate has a peripheral moat which can be filled prior to cell seeding in order to prevent the edge effect. Before filling the cells into the wells, pipette 5 mL of water/buffer/gelled solution (0.5 % agarose) into the peripheral moat. In addition, it is also possible to fill the inter-well space within the plate with 8 mL to 10 mL of liquid. This delays the cooling of the medium in the wells when the plate is used outside of the incubator. Additional information is available in Eppendorf Application Note 326.

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### 2.3 Flasks



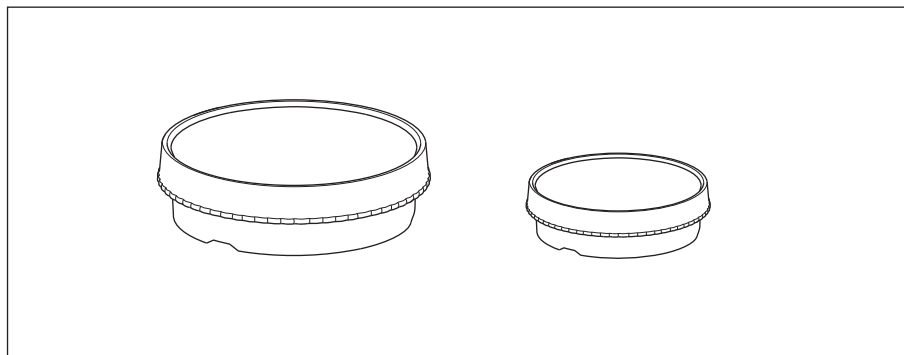
#### Filter

The flasks include a filter cap. When closed, flasks with a filter cap are suitable for cell growth as gas exchange takes place continuously via the filter.

#### Centrifugation

The flasks are suitable for centrifugation. Centrifugation of flask stacks is also possible. See chapter Technical Data for specifications.

### 2.4 Dishes



#### Packaging of dishes

Each aluminium-foil packaging contains 6 dishes in 2 separate and sealed compartments. Each compartment contains 3 dishes and can be opened independently from the other, ensuring sterility of the second compartment.

#### Sealing

The dishes are delivered with a lid.

### Corrugated handling ring

The dishes have a gripping ring which facilitates opening and closing as well as the safe transport of the dishes.

### SplashProtect ring

The dishes have a ring on the inside of the lid. This reduces the risk of liquids overflowing and therefore the risk of contamination.

## 3 Safety

### 3.1 Intended use

The products can be used for training, routine and research laboratories in the areas of life sciences, industry or chemistry. The products are intended to be used for research purposes only. Eppendorf does not provide a warranty for other applications. The products are not suitable for use in diagnostic or therapeutic applications. The products may only be used by skilled personnel who have been trained in the areas mentioned above.

### 3.2 Warnings for intended use



#### **WARNING! Damage to health due to infectious liquids and pathogenic germs.**

- ▶ When handling infectious liquids and pathogenic germs, observe the national regulations, the biological security level of your laboratory, the Material Safety Data Sheets, and the manufacturer's application notes.
- ▶ Wear your personal protective equipment.
- ▶ For comprehensive regulations about handling germs or biological material of risk group II or higher, please refer to the "Laboratory Biosafety Manual" (source: World Health Organization, Laboratory Biosafety Manual, in its respectively current valid version).



#### **WARNING! Risk of contamination**

Consumables are only sterile in sealed packaging.

- ▶ Please check that the packaging is undamaged.
- ▶ Observe the expiry date printed on the packaging.
- ▶ Only open the packaging immediately before use.
- ▶ Check the welds of bottles.
- ▶ Only use visually perfect and undamaged items.
- ▶ Do not use liquid nitrogen. The consumables could get damaged or the lids could burst open during thawing.



**WARNING! Risk of contamination from multiple use.**

Consumables are intended for single-use only.

- ▶ After use, dispose of consumables in accordance with the substances with which they have come into contact.



The Eppendorf Cell Culture Flasks are not suitable for shipping living cells.



**NOTICE! Risk of material damage.**

Autoclaving or high energy radiation can damage the coated motif. Product performance can not be guaranteed if the product has been exposed to autoclaving or radiation.

- ▶ Do not autoclave the cell culture consumables.
- ▶ Do not expose the cell culture consumables to UV light or high energy radiation.

## 4 Application

Stem cells and other primary cells maintained in other culture systems can readily be transferred to Eppendorf CCCadvanced FN1 motifs cultureware. Cells might initially grow differently than in the former system.

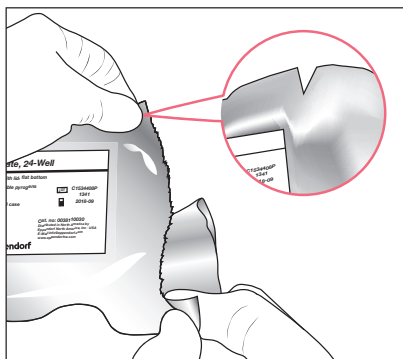


Specific technical tips regarding hiPSC transition and expansion on Eppendorf CCCadvanced FN1 motifs cultureware can be found at [www.eppendorf.com/ccc-advanced-shop](http://www.eppendorf.com/ccc-advanced-shop).

Optimal seeding density depends on the cell type and cell culture conditions. This parameter should be optimized by researchers accordingly to the specific purpose.

### Prerequisites

- All procedures must be performed under sterile conditions using aseptic techniques.



1. Open the aluminum-foil packaging just before use, using the tear notch as shown in the picture.
2. Fill the vessel with the sample.



## 5 Technical data

### 5.1 Plates

	Unit	6-well plate	24-well plate	96-well plate
Working volume	mL	3.0 – 5.0	0.5 – 1.0	0.1 – 0.2
Theoretical total volume	mL	16	3.6	0.4
Growth area*/well	mm <sup>2</sup>	940.3	208.9	37.0
Well diameter	mm	34.6	16.2	6.8
Dimensions (l × w × h)	mm	127.8 × 85.5 × 20.0		127.8 × 85.5 × 14.4
Height with lid	mm	23.2		17.6

\*For the initial seeding of cells, take into account the growth area in order to support optimal cell growth.

### 5.2 Flasks

	Unit	T-75	T-175
Working volume	mL	8.0 – 20.0	20.0 – 30.0
Theoretical total volume	mL	279.8	662.1
Growth area*/well	cm <sup>2</sup>	77.9	179.5
Dimensions (l × w × h)	mm	163.0 × 82 × 46.6	230.0 × 122.0 × 48

\*For the initial seeding of cells, take into account the growth area in order to support optimal cell growth.

### 5.3 Dishes

	Unit	35 mm	60 mm
Working volume	mL	2.0 – 3.0	3.0 – 5.0
Theoretical total volume	mL	8.1	26.6
Growth area/well	cm <sup>2</sup>	9.5	21.9
Diameter × height	mm	36.7 × 10.8	59.7 × 14.0
Height with lid	mm	12.5	15.7

**Technical data**

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**5.4 Dimensions**

6-/24-well plate	Conforms to ANSI/SLAS* 1-2004: Microplates – Footprint dimensions
96-well plate	Conforms to ANSI/SLAS* 1-2004 through ANSI/SLAS* 4-2004

\*SLAS: Society of Laboratory Automation and Screening

**5.5 Materials**

Material	Polystyrene, meets requirements of USC Class VI
Surface	Coated with synthetic fibronectin-derived motifs
Xeno-free	Manufactured using animal- and human-component-free materials

**5.6 Ambient conditions**

Working temperature	15 °C – 37 °C
Storage in a dry room at room temperature	From 15 °C – 30 °C

**5.7 Centrifugation stability**

Plates	Centrifugable up to 2500 x g For 6- and 24-well plates: Centrifugable in stack (4 plates) up to 300 x g For 96-well plate: Centrifugable in stack (5 plates) up to 300 x g
Flasks	Can be centrifuged with the suitable adapters; refer to the manufacturer's instructions

The centrifugation stability of each culture consumable is generally dependent on the centrifuge and its accessories, the ambient conditions and the liquid used.

## 5.8 Certificates

Certificates	Leachables, trace metal release, production conditions, purity and cytotoxicity. The certificates can be found at <a href="http://www.eppendorf.com/certificates">www.eppendorf.com/certificates</a> .
Lot-specific certificates	<ul style="list-style-type: none"> <li>• Free from RNase/DNase, human DNA, bacterial DNA, endotoxins</li> <li>• Sterility assurance level (SAL 10<sup>-3</sup>)</li> <li>• Cell growth test on Eppendorf CCCadvanced FN1 motifs cultureware</li> </ul> <p>Lot-specific certificates are issued by an independent, recognized laboratory. The lot number can be found on the label of the folding box.</p> <p>Lot-specific certificates can be downloaded at <a href="http://www.eppendorf.com/certificates">www.eppendorf.com/certificates</a>.</p>

**Ordering information**

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**6 Ordering information**

<b>Order no. (International)</b>	<b>Order no. (North America)</b>	<b>Description</b>
0038 110.010	0038110010	<b>Eppendorf CCCadvanced FN1 motifs Cell Culture Plates, 6-well</b> sterile, free of detectable pyrogens, RNase and DNase, DNA. Non-cytotoxic 5 plates, individually wrapped
0038 110.030	0038110030	<b>Eppendorf CCCadvanced FN1 motifs Cell Culture Plates, 24-well</b> sterile, free of detectable pyrogens, RNase and DNase, DNA. Non-cytotoxic 5 plates, individually wrapped
0038110.050	0038110050	<b>Eppendorf CCCadvanced FN1 motifs Cell Culture Plates, 96-well</b> sterile, free of detectable pyrogens, RNase and DNase, DNA. Non-cytotoxic 5 plates, individually wrapped
0038 120.020	0038120020	<b>Eppendorf CCCadvanced FN1 motifs Cell Culture Flasks, T-75</b> with filter cap, sterile, free of detectable pyrogens, RNase and DNase, DNA. Non-cytotoxic 5 flasks, individually wrapped
0038 120.030	0038120030	<b>Eppendorf CCCadvanced FN1 motifs Cell Culture Flasks, T-175</b> with filter cap, sterile, free of detectable pyrogens, RNase and DNase, DNA. Non-cytotoxic 5 flasks, individually wrapped
0038130.010	0038130010	<b>Eppendorf CCCadvanced FN1 motifs Cell Culture Dishes, 35 mm</b> sterile, free of detectable pyrogens, RNase and DNase, DNA. Non-cytotoxic 6 dishes, wrapped per 3 dishes
0038130.020	0038130020	<b>Eppendorf CCCadvanced FN1 motifs Cell Culture Dishes, 60 mm</b> sterile, free of detectable pyrogens, RNase and DNase, DNA. Non-cytotoxic 6 dishes, wrapped per 3 dishes

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