

CellCrown™48 inserts

CellCrown™48 insert applies structure of rows instead of single inserts. CellCrown™48 immobilizes a sample (e.g. fibre, foil, membrane, textile, block-like or tissue sample) in the well of a well plate.

- Material is medical grade polycarbonate
- The sample is assembled between the body part and the ring in CellCrown™48 model.
- Attachment of sample is easier if one of the supporting frames is cut off prior attachment of the samples (Figure 1).
- Samples can be attached as one entity and cut between insert parts (Figure 3).
- The inserts are available as sterile (gamma-irradiated) and non-sterile.
- Promotion as disposable, for single use, only. The small holes are difficult to clean and may cause cross-contamination if reused.
- This is the only cell culture insert in the market, which is provided as empty and which is easy to load with the researchers own sample material.
- CellCrown™48 is also the only insert in the market with preattached porous membrane (Table 1).
- Row of CellCrown™48 can be cut into smaller, even single parts.
- Single CellCrown™48 insert maintains its position in the well even alone.
- Even though standard lids of well plates can be used with CellCrown™48 inserts, follow-up of the sufficient level of media in wells is recommended.
- Package of CellCrown™48 contains 4 strips of 6 wells, i.e. it covers half of the wells of 48-well plate.

CellCrown™48 contains bodies and fixing rings as rows of 6 parts (6 well strip). The installation of the samples is easier if one of the shafts is cut off prior installation of the sample (Figure 1).

Table 1. Product selection of CellCrown™48

CellCrown	Non-sterile	Sterile	With PET filter 8.0 µm	With PET filter 1.0 µm
CellCrown™48	x	x	x	x

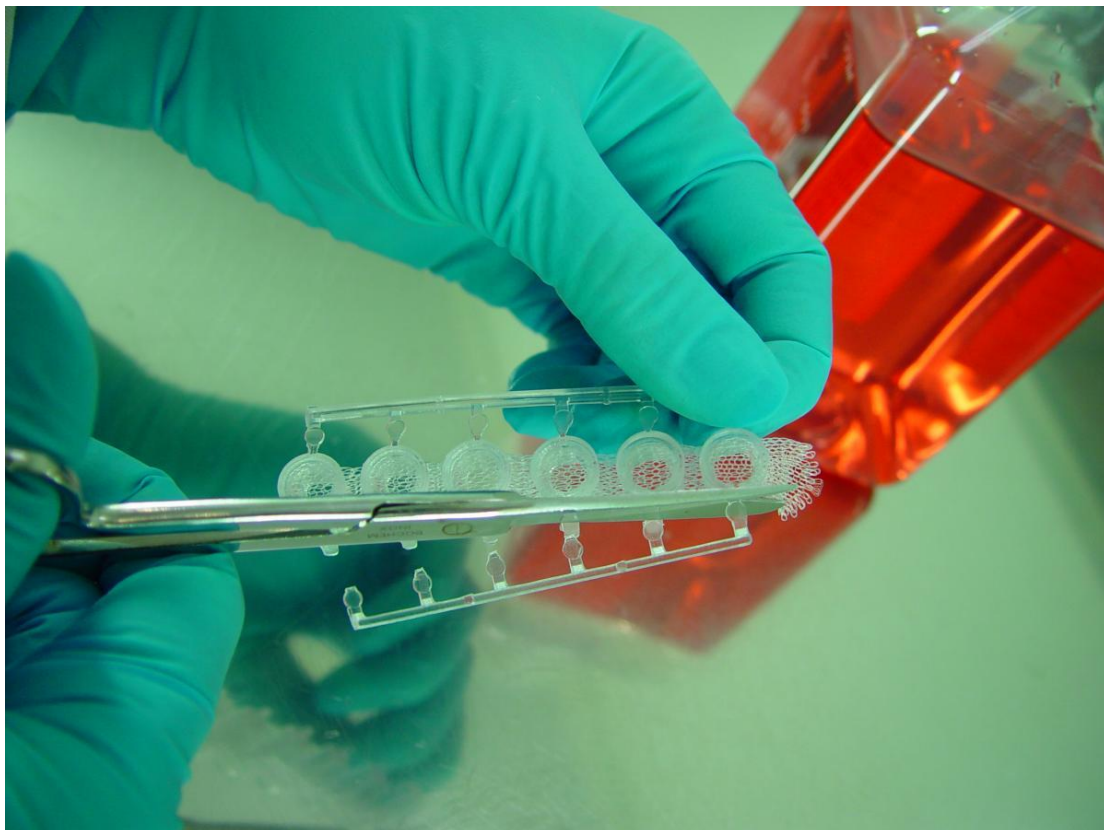


Figure 1. Cutting off one shaft of rings of CellCrown™48

The sample is placed on the top of row of rings and bodies are pushed on their place or alternatively the sample can be placed in the ends of bodies and then pushed the rings into their places (Figure 2).



Figure 2. Attachment of sample in CellCrown™48

After this the samples can be cut between the rings, if needed (Figure 3).

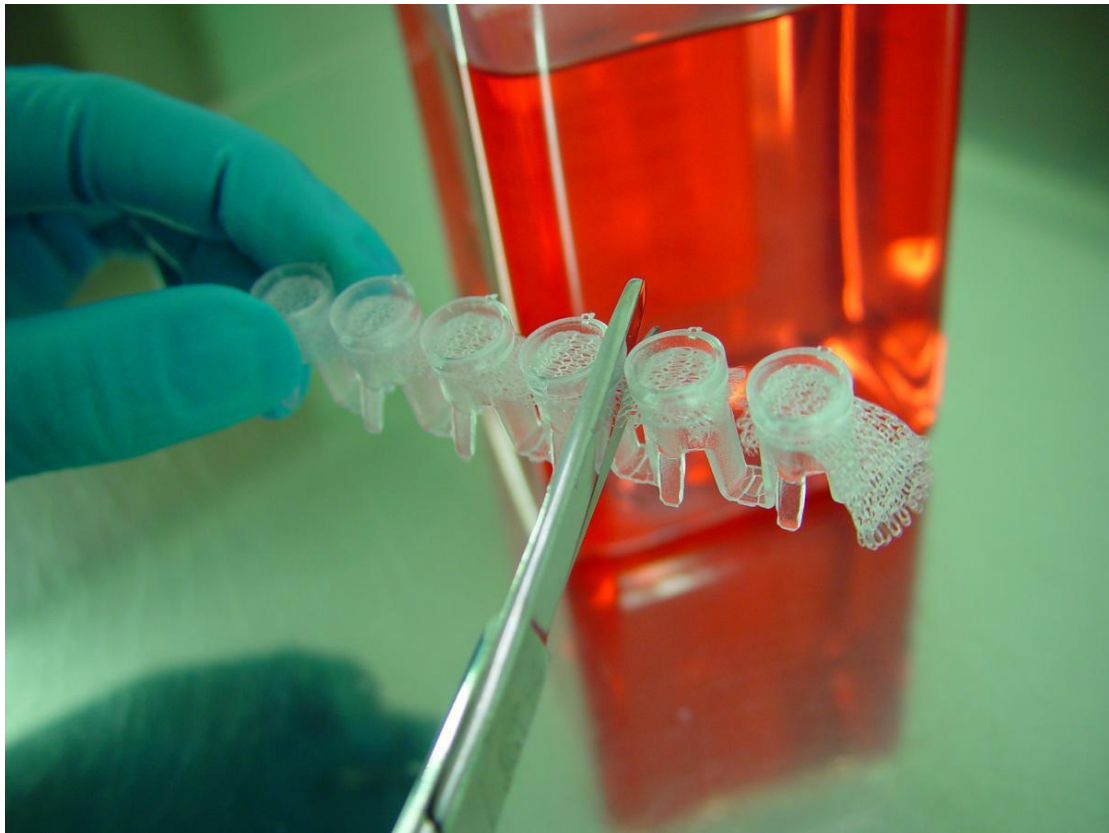


Figure 3. Cutting of the sample between inserts

Now the sample is ready for installation into well plate (Figure 4).

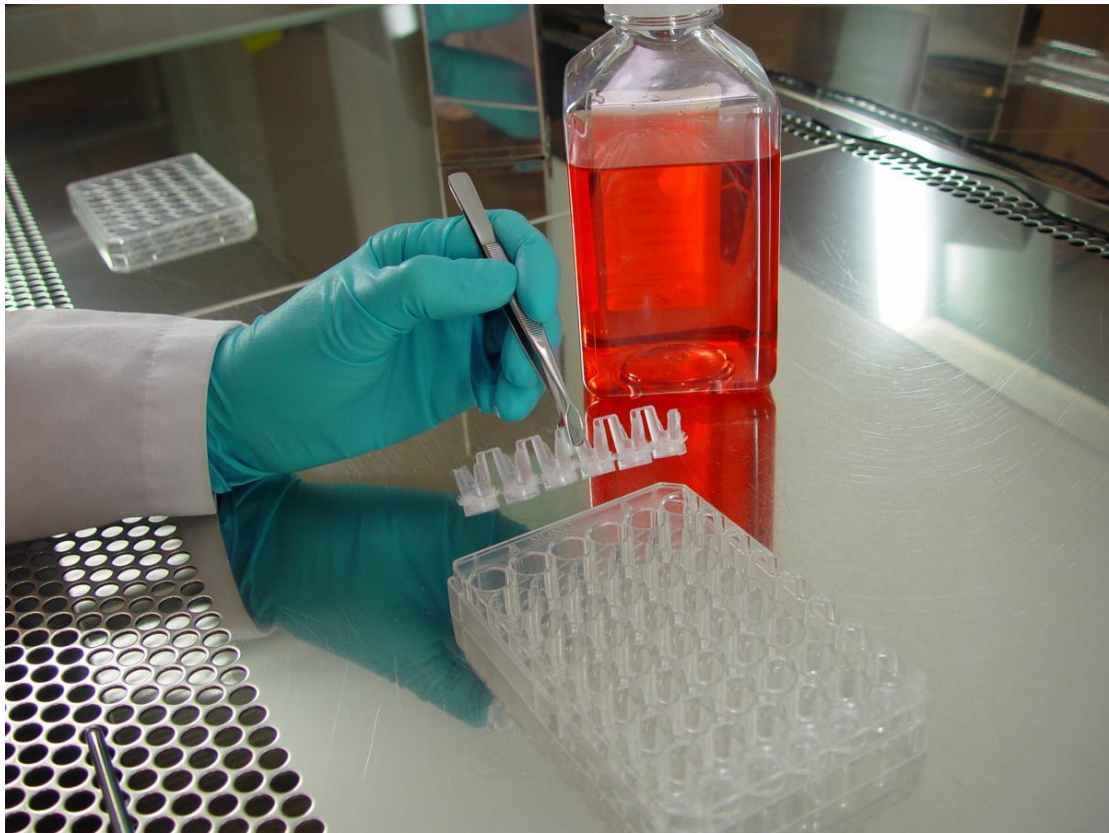


Figure 4. CellCrown™48 ready for culturing.

Applications

Up to date CellCrown™ cell culture inserts have been used in cell culturing experiments in the research of biomaterials, tissue engineering, regenerative medicine, pharmaceuticals, cancer models, and skin substitutes for animal free testing. The studied materials have been varying from biological tissue samples to completely synthetic ones, these studies are listed in Scaffdex web site.

Table 2. Dimensions of CellCrown™48

Dimensions	CellCrown™48
Outer diameter of the body	8 mm
Inner diameter of the body	7 mm
Inner surface area	0.38 cm ²
Height of the body	12 mm
Inner diameter of the ring	8.5 mm
Height of the ring	2.5 mm
Suitable sample sizes in diameter	> 10 mm
The recommended thickness of sample	0.05-0.3 mm Thicker samples can be handled with the body part alone
The applicable well plate	Standard 48-well plate, like Nunc and Corning
Structural feature	6 inserts in a row