



# 3D CoSeedis™

Modular multi-purpose  
3D Cell Co-Culture System

# 3D CoSeedis™

## New standards in 3D Co-Culture

3D CoSeedis™ from abc biopply ag is a novel scaffold-free 3D cell co-culture system. It consists of a unique conical agarose matrix array (CAMA) that allows the formation of spheroidal and non-spheroidal cell aggregates in a highly-reproducible and consistent manner. The conically shaped microwells within the array allow precise determination of aggregate volume and cell growth. Furthermore, the modular composition of the 3D system allows distance co-cultures and, consequently, the standardisation of protocols.

## Key Features of 3D CoSeedis™ Matrix

### Modular Set-up

- Contact or distance co-cultures (fully separable)
- Serum, serum-reduced or serum-free conditions possible

### Permeable Matrix

- Allows long term 3D culture of cell aggregates
- Sufficient supply with nutrients, oxygen, and catabolites – efficient disposal of toxic waste products
- Efficient use of physically separated feeder cells (distance co-culture)
- Cultivation in standard or defined media

### Multi-purpose Applicability

- Applicable to various cell types (see Applicable Cell Systems)
- Supports the formation of aggregates of spheroidal and non-spheroidal cell types
- Highly reproducible cell aggregates
- Suitable for high-throughput applications

### Unique and easy Readout

- Easy and accurate quantification of cell aggregate volume over time
- Unique conical microwells correlate aggregate volume to cell number
- Integrated method for histological analysis (H&E, IHC, ISH, etc.)





# Applicable Cell Systems

Tissue Type	Cell Type
Tumour / Cancer <sup>1</sup>	<b>Breast:</b> BT-474, BT-549, MCF7, MDA-MB-231, T47D, rat MTPa <sup>2</sup> <b>Colon:</b> HT-29 <b>Epidermoid carcinoma:</b> A431 <b>Glioblastoma:</b> GBM4, U251 <b>Hypopharynx:</b> FaDu <b>Liver:</b> Hep3B, HepG2, Huh-7 <b>Lymphoma:</b> U937 <b>Multiple myeloma:</b> L363, U266 <b>Pancreas:</b> MIA PaCa-2, Panc-1, PSN-1 <b>Prostate<sup>3</sup>:</b> LNCap, PC-3, 22Rv1 <b>Esophageal adenocarcinoma:</b> OE-19 <sup>2</sup>
Mesenchymal stem cells <sup>1</sup>	<b>Adipose tissue derived:</b> Adipo-MSC <b>Bone marrow derived:</b> BM-MSC
Fibroblasts <sup>1</sup>	<b>Breast cancer associated fibroblasts:</b> BrCa-aF
Hematopoietic stem cells <sup>1</sup>	<b>Cord blood derived:</b> CD34+ HSC
Epithelial cells <sup>1</sup>	<b>Lung:</b> BEAS-2B, NBEC, FBEC
Osteogenic differentiation <sup>1,2</sup>	from BM-MSC
Chondrogenic differentiation <sup>1</sup>	from BM-MSC

<sup>1</sup> A deep conical agarose microwell array for adhesion independent three-dimensional cell culture an dynamic volume measurement

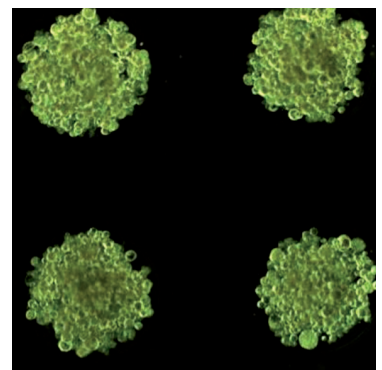
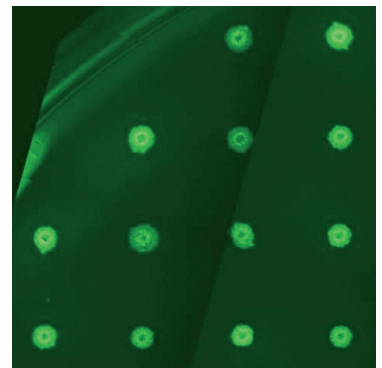
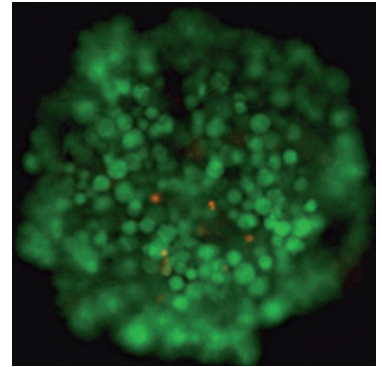
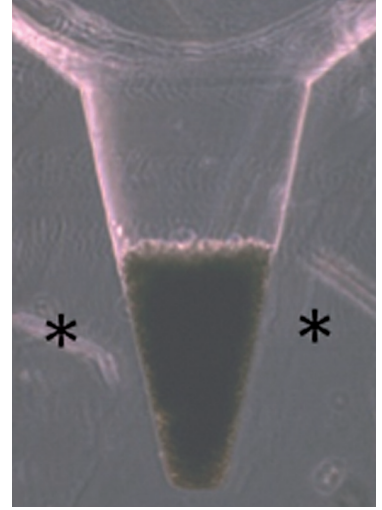
Andreas R. Thomsen et al., Lab Chip, DOI 10.1039/C7LC00832E.

**Modelling gastrointestinal cancer cell interaction with tumor stroma in a 3D microwell array**

Andreas R. Thomsen et al., poster presented at GBS 2017.

<sup>2</sup> Personal communication: Dr. A. R. Thomsen, Universitätsklinikum Freiburg, Germany.

<sup>3</sup> Personal communication: Dr. C. Zamboglou, Univeristätsklinikum Freiburg, Germany.



## About abc biopply ag

With 3D CoSeedis™, abc biopply sets new standards in translational cell culture technologies. We implement standardised protocols that are fulfilling regulatory requirements without jeopardising cellular behaviour. Our unique solutions are validated by experts to shorten the transition from basic to clinical research and from crude to defined experimental conditions.

We support the development of standard applications and protocols, and the translation of your technology into commercial kits. Our services include development, manufacturing, marketing, and commercialisation processes for cellular and molecular technology platforms. Our solutions fulfil the requirements of both, pharmaceutical and clinical applications.

**abc** biopply

applied biomedical concepts

[www.biopply.com](http://www.biopply.com)

# Product Portfolio

## Starter Kits

### 3D CoSeedis™ Starter Kit

**1 x 1 format** (6 x 880 microwells per kit) (# 11-UB-V1117SK)  
6 matrices in the 1 x 1 format in matrix storage solution,  
2 x 6-well plates for culturing, Spatula, Protocol

### 3D CoSeedis™ Starter Kit

**2 x 2 format** (6 x 200 microwells per kit) (# 22-UB-V1117SK)  
6 matrices in the 2 x 2 format in matrix storage solution,  
2 x 6-well plates for culturing, Spatula, Protocol



## Co-culture Systems

### 3D CoSeedis™ Co-culture System

**1 x 1 format** (6 x 880 microwells per kit) (# 11-UB-V1117CCS)  
6 matrices in the 1 x 1 format in matrix storage solution,  
2 x 6-well plates for culturing, Protocol

### 3D CoSeedis™ Co-culture System

**2 x 2 format** (6 x 200 microwells per kit) (# 22-UB-V1117CCS)  
6 matrices in the 2 x 2 format in matrix storage solution,  
2 x 6-well plates for culturing, Protocol



## Tumour Systems

### Standardised 3D CoSeedis™ Co-culture System

for the following tumour cells are currently developed and will be released soon (contact us for further details):

**Breast:** BT-474, BT-549, MCF7, T47D · **Colon:** HT-29

**Epidermoid Carcinoma:** A431 · **Glioblastoma:** U251

**Liver:** Huh-7, HepG2 · **Lymphoma:** U937

**Pancreas:** Panc-1 · **Prostate:** LNCap, PC-3

All our Tumour Systems are available with standardised feeder cells (MSC).



## Spheroid Histology Systems

### Standardised 3D CoSeedis™ Co-culture System

for histological readouts. Under development (contact us for further details).

## Single Cell Analysis Systems

### Standardised 3D CoSeedis™ Co-culture System

for the analysis of dissociated single cells from spheroids.  
Under development (contact us for further details).



## Accessoires

### 3D CoSeedis™ Spatula

Spatula for matrix handling, sterile (# SPT-V1117)

abc biopply offers customised standardisation services to implement your cell of choice into the 3D CoSeedis™ system. Please contact us to discuss further details.

## abc biopply ag

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