3D CoSeedis™

Easy Mass Production of Uniform and Homogenous Organoids for Predictive Disease Modeling

abc biopply
applied biomedical concepts

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3D CoSeedis™

New standards in 3D Co-Culture

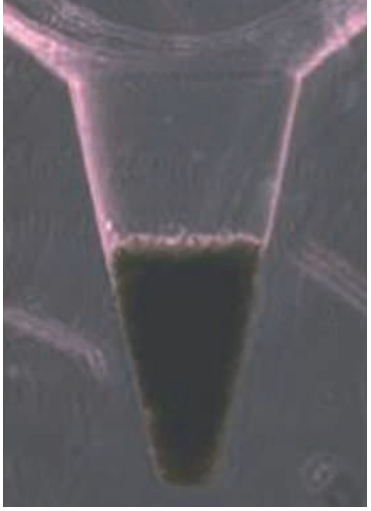
3D CoSeedis™ from abc biopply is a novel scaffold-free 3D cell co-culture system. It consists of a unique agarose-based chip containing an array of conical microwells. The particular and proprietary topography of this arrangement allows the formation of spheroidal and non-spheroidal cell aggregates in a highly-reproducible and consistent manner. The conically shaped microwells within the array allow precise determination of aggregate volume, hence cell growth. Furthermore, the modular composition of the 3D CoSeedis™ system allows co-culturing of feeder cells that are physically separated from the actual test cells (distance co-culture). Consequently, this set-up counts responsible for the standardisation of protocols under defined conditions.

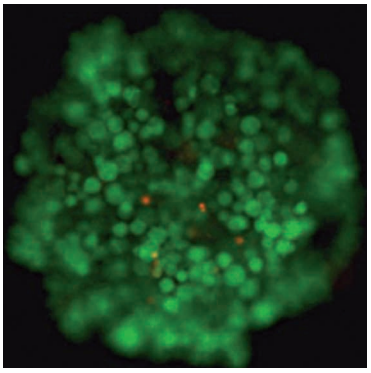
Key Features of 3D CoSeedis™ Chip

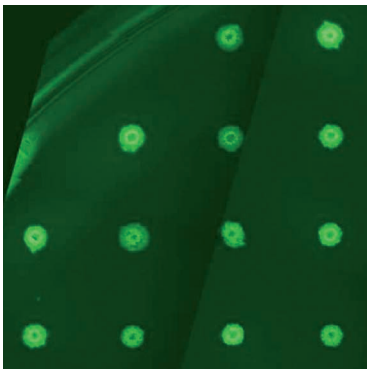
- Highly reproducible
- Easy mass production of highly uniform and homogenous organoids
- Wide range of disease models
- HTS/HCS compatibility
- Unique distance co-culture design

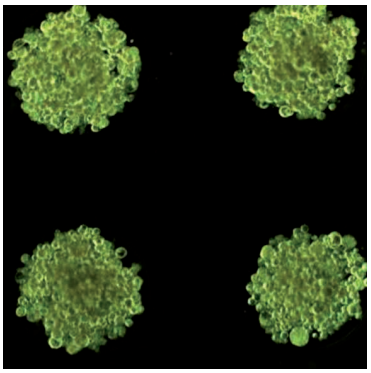
Applicable Cell Systems

Tissue Type	Cell Type
Tumour / Cancer [1]	**Breast:** B16, BT-474, BT-549, MCF7, MDA-MB-231, T47D, rat MTPa[2] **Lung:** A-549 **Colon:** HT-29, WiDr **Epidermoid carcinoma:** A431 **Glioblastoma:** GBM4, U251 **Hypopharynx:** FaDu **Liver:** Hep3B, HepG2, Huh-7 **Lymphoma:** U937 **Multiple myeloma:** L363, U266 **Pancreas:** MIAPaCa-2, Panc-1, PSN-1 **Prostate:** LNCap, PC-3, 22Rv1[3] **Esophageal adenocarcinoma:** OE-19 [2] **Hepatocellular carcinoma:** Snu **T-Lymphocytes:** HuT-78 * **B-Lymphocytes:** Raji *
Mesenchymal stem cells [1]	**Adipose tissue derived:** Adipo-MSC **Bone marrow derived:** BM-MSC
Fibroblasts [1]	**Breast cancer associated fibroblasts:** BrCa-aF
Hematopoietic stem cells [1]	**Cord blood derived:** CD34+ HSC
Epithelial cells [1]	**Lung:** BEAS-2B, NBEC, FBEC
Osteogenic differentiation [1, 2]	from BM-MSC
Chondrogenic differentiation [1]	from BM-MSC









[1] **A deep conical agarose microwell array for adhesion independent three-dimensional cell culture and 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.

[2] Personal communication: Dr. A. R. Thomsen, Universitätsklinikum Freiburg, Germany.

[3] Personal communication: Dr. C. Zamboglou, Univeristätsklinikum Freiburg, Germany.

* Internal observation: sedimented suspension cells in microwells with no classical aggregation.

About abc biopply ag

abc biopply is specialised in the standardisation of biological components and complex cellular systems. With 3D CoSeedis™, it is at the cutting edge of 3D cell culture technologies and defines a quantum leap in 3-dimensional *ex vivo* cell biology.

abc biopply is an innovative and dynamic biotech company headquartered in Solothurn with laboratory and research facilities in Cham, Switzerland.
The company was founded in 2018 with the aim to substantially improve the level of standardisation of complex cell biological processes, namely in the area of 3-dimensional cell culture technologies.
abc biopply devotes its know-how and expertise in complex cell culture technologies to define and validate standardised workflows, technologies and protocols, particularly in 3-dimensional applications.

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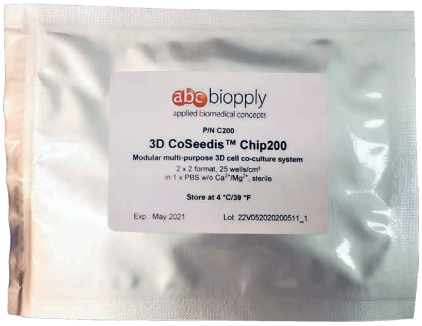
Product Portfolio

Single-Packaged Chips

3D CoSeedis™ Chip200 (#C200)
1 chip for 200 organoids in aluminium bag containing 1 x PBS w/o Ca^{2+}/Mg^{2+}
Compatible with 6-well plates



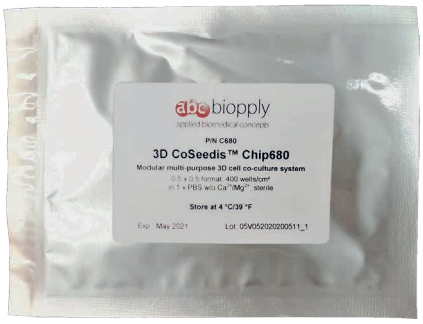
3D CoSeedis™ Chip880 (#C880)
1 chip for 880 organoids in aluminium bag containing 1 x PBS w/o Ca^{2+}/Mg^{2+}
Compatible with 6-well plates

3D CoSeedis™ Chip680 (#C680)
1 chip for 680 organoids in aluminium bag containing 1 x PBS w/o Ca^{2+}/Mg^{2+}
Compatible with 24-well plates

Multi-Packaged Chips

3D CoSeedis™ Chip880-6 (#C880-6)
6 chips for 880 organoids each, in beaker containing 1 x PBS w/o Ca^{2+}/Mg^{2+}
Compatible with 6-well plates

3D CoSeedis™ Chip680-6 (#C680-6)
6 chips for 680 organoids each, in beaker containing 1 x PBS w/o Ca^{2+}/Mg^{2+}
Compatible with 24-well plates



3D CoSeedis™ Chip680-12 (#C680-12)
12 chips for 680 organoids each, in beaker containing 1 x PBS w/o Ca^{2+}/Mg^{2+}
Compatible with 24-well plates

Accessories

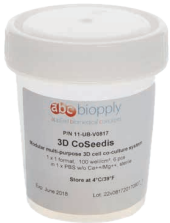
Spatula for 3D CoSeedis™ C200/C880, sterile (#SPT-V1117)
Spatula for 3D CoSeedis™ C680, sterile (#SPT-V0919)

Aggregation Media

Aggregation Medium Kit, incl. basal medium (500 ml) and supplement (25ml) (#AM1-V0618-Kit)
Aggregation Medium, 500 ml (#AM1-V0618)

Aggregation Media Supplement

3D CoSeedis™ Aggregation Medium Supplement, 25 ml (#AMS-V0618)



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

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