Corning® Elplasia® Round Bottom Plates

Guidelines for Use

CORNING

Introduction

Corning Elplasia plates are designed with microcavities within each well with an Ultra-Low Attachment (ULA) surface to enable formation of multiple, uniform spheroids in each well. Generation of multiple spheroids per well is important for assays that require a larger number of data points or increased assay signal without increasing spheroid size. Culture in the Corning Elplasia plates is straightforward, though it will require some optimization depending upon cell type, seeding density, and desired culture time.

Materials

- Corning Elplasia multiwell plate
- Single cell suspension of interest
- Cell culture medium

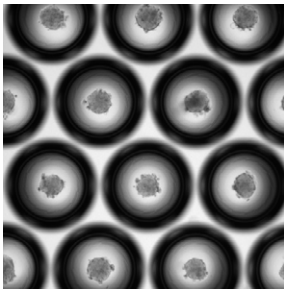
Procedure

1. Remove protective film from the bottom of the Corning Elplasia multiwell plate.
2. Pre-wet the wells with cell culture medium, and centrifuge to remove trapped air from the micro-cavities. If there are microcavities with trapped air, cells in suspension will not settle into those structures. A good starting point is 500 x g for 1 minute. This may need to be increased depending on the medium used. We do not recommend centrifuging higher than 2,000 x g.

	6-well	24-well	96-well
Recommended pre-wet volume per well	1.5 mL	500 µL	50 µL

3. Calculate seeding density based on the number of desired cells in each microcavity. The approximate number of microcavities is listed below. We recommend between 100 to 1000 cells per microcavity depending on the application and cell type. The microcavities have a depth of approximately 400 µm. The larger the spheroid, the greater the risk of spheroids being dislodged out of microcavities during handling.

	6-well	24-well	96-well
Approximate number of microcavities per well	2885	554	79



Representative photomicrograph of 48-hour HT29 spheroids in Corning Elplasia plate micro-cavities. 40X total magnification.

4. Once trapped air is removed, add cell suspension to wells. To ensure uniform spheroid size in every microcavity, we recommend adding at least the same volume of cell suspension as pre-wet volume and gentle rocking of plate to distribute cells.
5. Culture cells for desired amount of time.

   We recommend avoiding media exchanges when possible to decrease the risk of dislodging spheroids out of the microcavities. If media exchanges are necessary, we recommend half media exchanges by adding droplets of media as gently as possible. Adding media when there are higher volumes already in the well can reduce the chances of disturbing the spheroids.

   Be especially gentle when transporting Corning Elplasia 6-well plates to avoid dislodging spheroids out of the microcavities.
6. To collect spheroids, pipette up and down with wide bore pipet tips or a Corning Stripette™ pipet to resuspend the spheroids in the well media prior to collection. Several washes may be required to recover all spheroids.

Ordering Information

Corning® Elplasia® Round Bottom Plates

Cat. No.	Description
4440	6-well plate, round bottom
4441	24-well plate, round bottom
4442	96-well microplate, round bottom

For more specific information on claims, visit the Certificates page at **www.corning.com/lifesciences**.

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