384-Well Spheroid Culture with Magnetic 3D Bioprinting

- Rapid printing 15 min to a few hours
- Spheroids with as few as 625 cells
- High-throughput printing with size reproducibility
- No gels, scaffolds, specialized equipment or media
- Applicable to all cell types
- High-content compatible with fluorescence, genomics, molecular biology
- Easy to co-culture different cell types
- Easy to handle, wash, and change solutions by using magnet to hold cells



(a) Spheroids of HepG2 human hepatocellular carcinoma cells and (b) their sizes at varying starting cell counts after 15 min of printing. Viability within these spheroids as a function of drug concentration (doxorubicin) can be measured using (c) luminescent viability assays (CellTiter-Glo® 3D Cell Viability Assay, Promega) and (d) live/dead staining (10,000 cells). (e) The 384-well bioprinting kit can rapidly print spheroids as small as 625 cells. These spheroids can then be assayed using fluorescence, genomics, and other biochemical assays for high-content screening. Scale bar = 500 μm.

n3D introduces our new 384-well Bioprinting Kit for high-throughput 3D spheroid culture.

Spheroids/microtissues are formed using cells magnetized with the biocompatible NanoShuttle, then printed with mild magnetic forces.¹ This kit can be used to rapidly and reproducibly print spheroids (**as fast as 15 min**) of small cell numbers (**as few as 625 cells**), saving time and cost compared to other spheroid systems, which can take days to weeks. This system is also **ideal for high-content screening**, including fluorescence and other cell based assays.

Contact us about specific applications and academic discounts!

384-well Bioprinting Kit Includes:

- 384-well spheroid drive
- 600 µL vials of NanoShuttle (3)
- Ultra low-attachment 384-well plates (2)

005-NS-6PK

Nanoshuttle refill, 6-pack





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