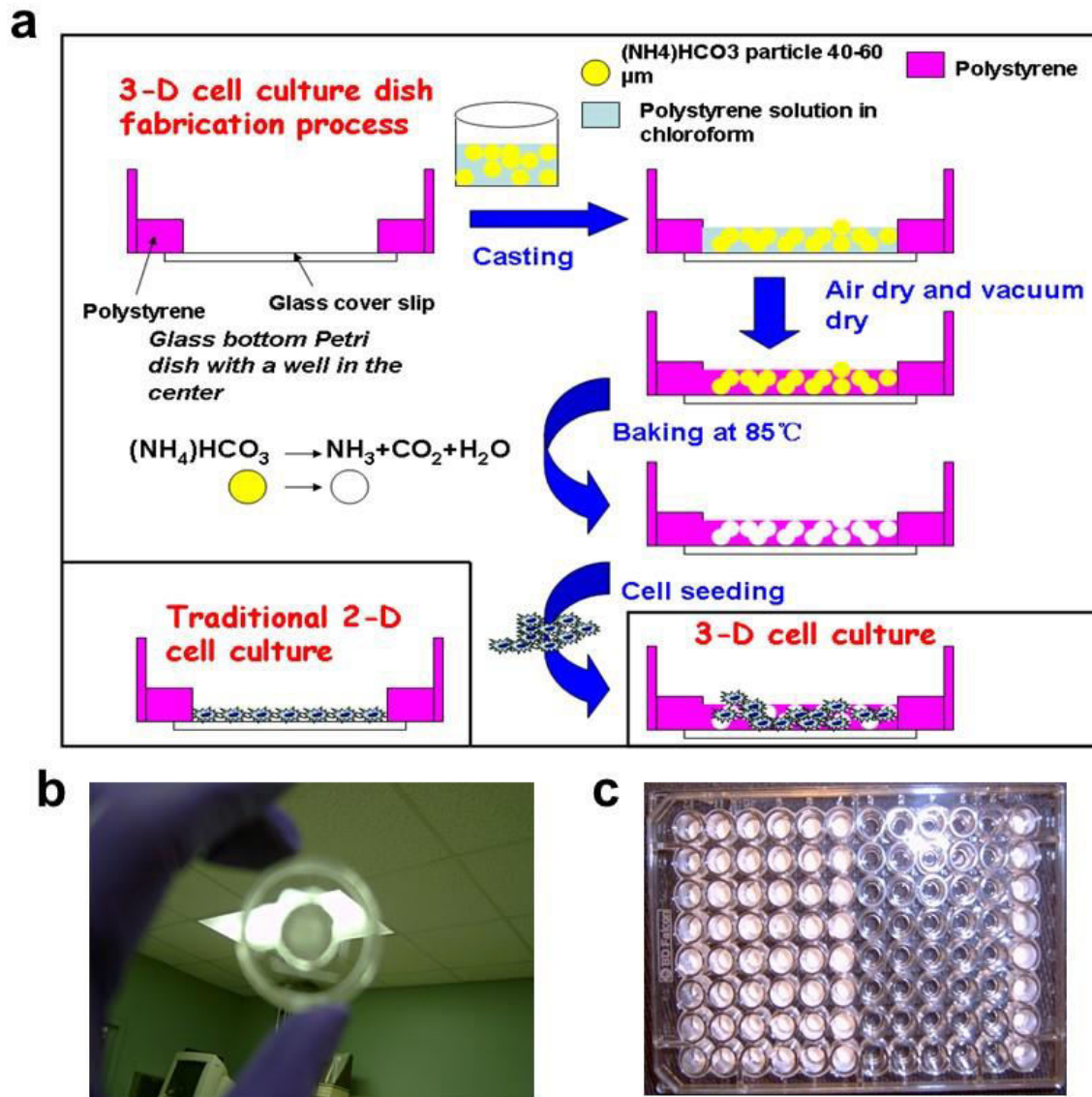


3D POLYSTYRENE 96-WELL PLATE



Description: Pharmaceutical industry preclinical drug discovery labs were not embracing 3D cultures in their programs. One of the often-cited reason was that they lacked the technology that was easy to incorporate into existing high throughput screening (HTS) instrumentation. To address this challenge we modified a standard 96-well plate, which was in use in HTS by chemically “welding” 3D supporting scaffolds in each well. We used a lab robot to make uniform plates that were provided to labs to try. The figure above shows the original fabrication and characterization of 3D cell culture vessels. (a): Schematic of the fabrication process. (b): Outlook of a 3D cell culture dish with a 3D polystyrene scaffold in the center. (c): Outlook of a 3D cell culture 96-well plates with 3D polystyrene scaffolds in the left half of the columns.

Reference: Cheng, K.; Lai, Y.; Kisaalita, W.S. Three-dimensional polymer scaffolds for high throughput cell-based assay systems. *Biomaterials* 29:2802-2812 (2008).