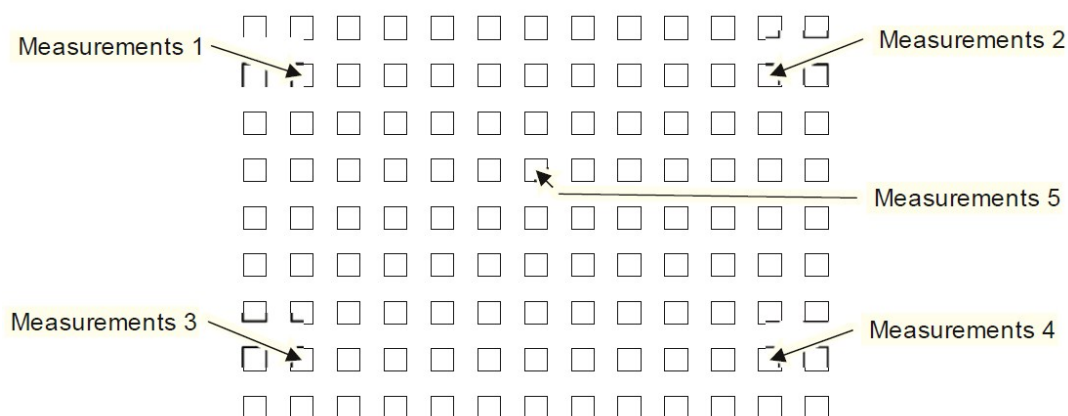


Supplementary information

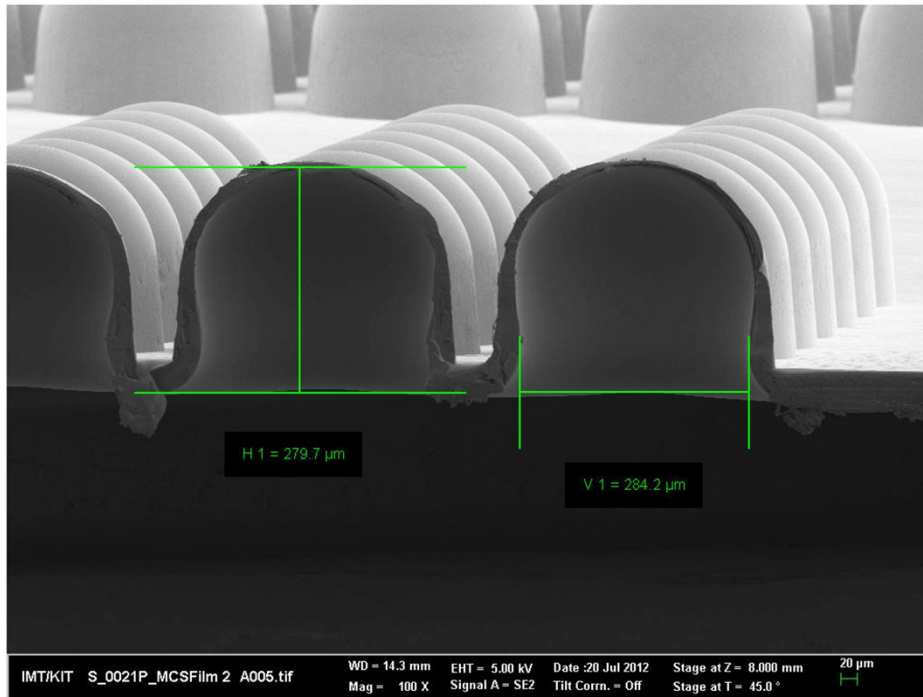
Below we describe the (hemispherical) geometry of the microwells and the uniformity of their distribution across the plate.



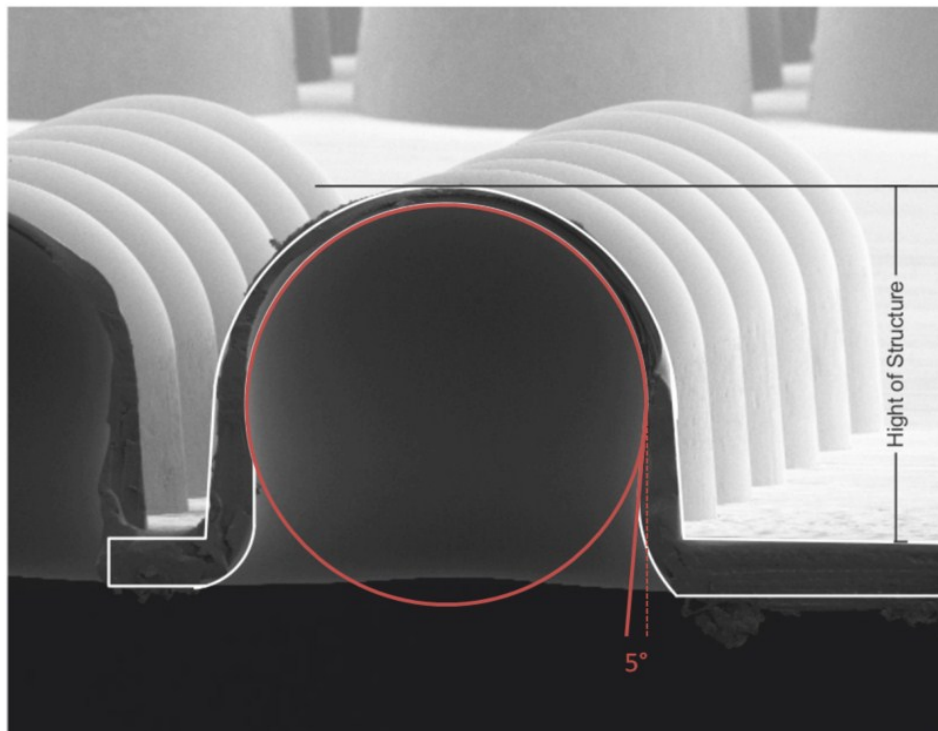
Supplementary figure 1: Optical height measurements of micro-thermoformed microwells were performed on different locations of the film.

	Height in μm	
	Sample 1	Sample 2
Measurements 1:	253	263
Measurements 2:	246	253
Measurements 3:	248	251
Measurements 4:	275	271
Measurements 5:	235	234

Supplementary table 1: The microwells depth of two COP films was optically measured at five different locations and showed an uniform distribution across the film. COP material properties are: Zeonor mcs-foil 051, thickness 50 μm , product code: 10-0682-0000-05, supplier: microfluidic ChipShop.

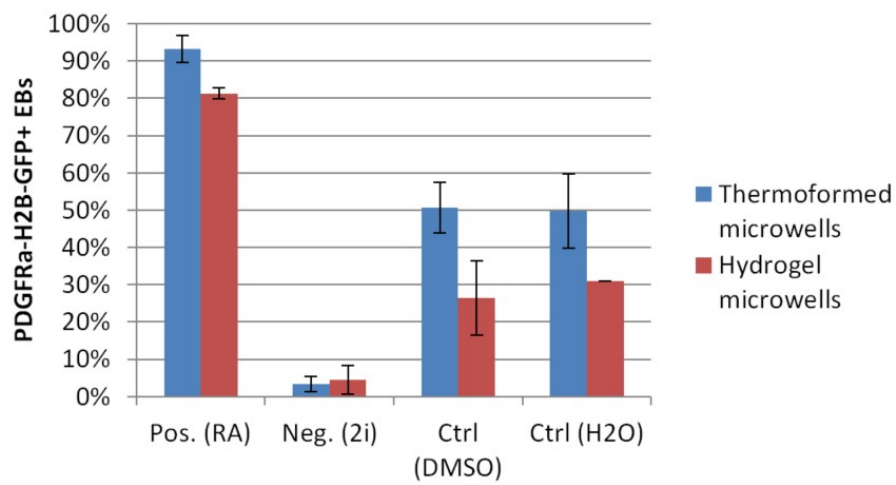


Supplementary figure 2: Validation of microwell depth. Sample 2 was cut through one row of microwells at the location of ‘measurements 4’ and the height and width was measured using SEM. The optical measurement of 271 μm correlates with the SEM measurement of 279.7 μm .



Supplementary figure 3: Microwell geometry. The microwell consists of a nearly hemispherical bottom from where the sidewalls are directed inside with a 5 $^\circ$ inclination towards the opening. The aspect ratio of depth/diameter is almost 1.

The yield of EBs positive for PDGFRa-H2B-GFP in positive (RA), negative (2i) and neutral controls (DMSO, H2O) was compared between the thermoformed and the hydrogel plate. The results show a similar trend between the plates.



Supplementary figure 4: Yield of EBs positive for PDGFRa-H2B-GFP expression compared between plates (measured at 96 hours, n = 3).