

AQUARRAY

AQUARRAY GmbH
Hermann-von-Helmholtz-Platz 6
76344 Eggenstein-Leopoldshafen
Germany

+49 7247 206 900 8

info@aquarray.com
www.aquarray.com



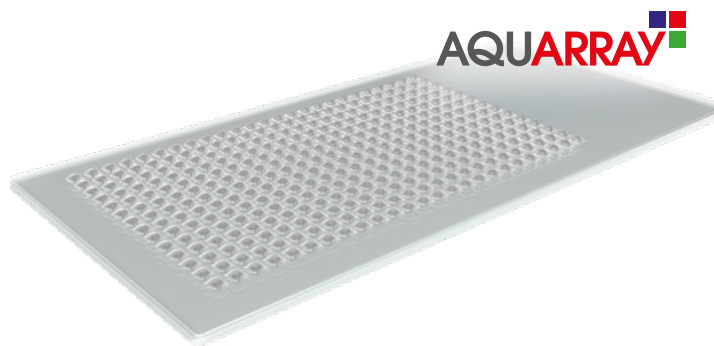
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 880019

AQUARRAY

DROPLET MICROARRAY (DMA)

A revolutionary miniaturized technology for high-throughput screening of live cells

Droplet Microarrays are transparent and completely planar arrays consisting of hydrophilic spots separated by superhydrophobic barriers based on Aquarray's patented technology



Compatibility with cell culture models

- Adherent and suspension cell lines of any tissue and species
- Primary cells, iPSCs and stem cells
- 3D cell culture models, arrays of spheroids and scaffolds

Compatibility with screening assays

- Compound screenings
- Transfection-based assays
- Microscopy & High Content Screening
- Fluorescent- and colorimetric-based assays
- Biochemical assays

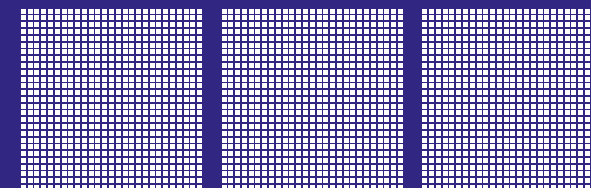
Compatibility with standard laboratory instruments

- Cell incubators
- Light, fluorescence and confocal microscopes
- Standard protocols for staining, fixation and immunofluorescence
- Non-contact dispensers for cells, compounds and reagents: Scienion, LabCyte, CELLINK, Dispensix, Gyger, Biofluidix, Formulatrix, BioDot, Cytexa
- Fluorescence scanners
- SBS (SLAS/ANSI) foot print

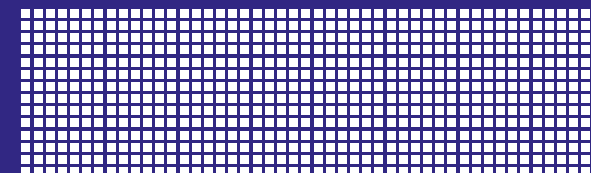
Droplet Microarray Features

- Transparent two-dimensional array format – no auto-fluorescence
- High throughput: 588-6040 spots per array of 21 mm x 72 mm format
- Custom array design possible
- Low cell numbers: 1-300 cells per spot
- Controllable culturing volumes: 5 to 250 nL per spot
- Compatibility with both 2D and 3D cell culture models
- Compatibility with SBS (SLAS/ANSI) standard spacing between spots
- Compatibility with existing equipment for cell-based screening
- Compatible with on-chip solution-based and solid-phase synthesis
- Compatible with on-chip compound characterization by MALDI-MS and spectroscopy

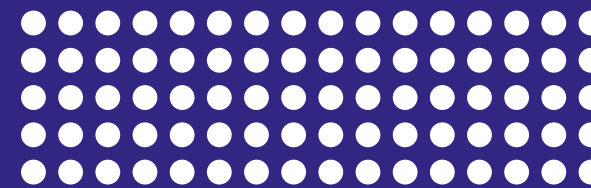
Droplet Microarrays are available in different formats with spot sizes ranging from 350 μm to 2,8 mm. Customized formats are possible. For more available formats please contact us.



1 field 39 x 39 = 1521 · 3 fields · 4563 Square · 350 μm x 350 μm



14 x 48 = 672 Square · 1.000 μm x 1.000 μm



5 x 16 = 80 · Circle · \varnothing 3.000 μm

Comparison of consumption and throughput on Droplet Microarray with 384-well plate

	384 well Microtiter Plate	Droplet Microarray
Dimensions	127 mm x 85 mm	76 mm x 25 mm
Reagent Volume	30.000 nL	100-150 nL
Cell Number	5.000 - 20.000	50 - 300
Compound	10.000 pMole	30 pMole
Data Points	384	588-6400 (adaptable on demand)