ACCUSPOT CLASSIC MEA 48

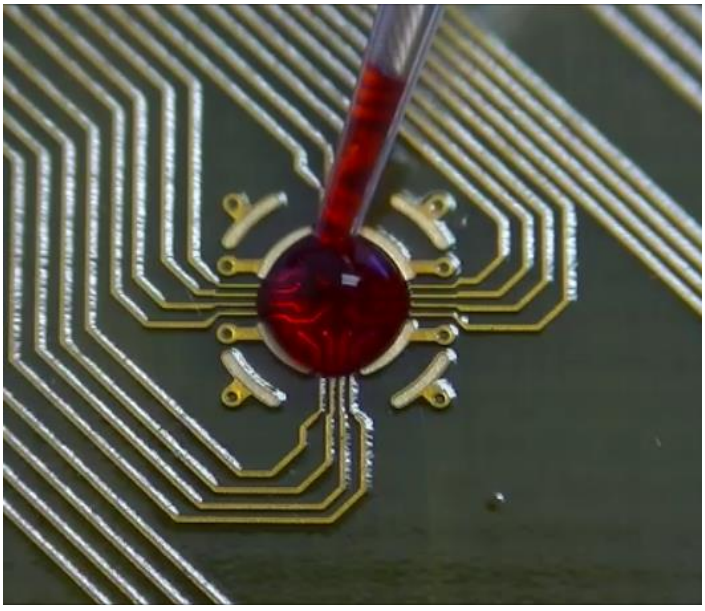
ACCURATE SPOTTING EVERY TIME

Advantages of spotting cells on MEA plates

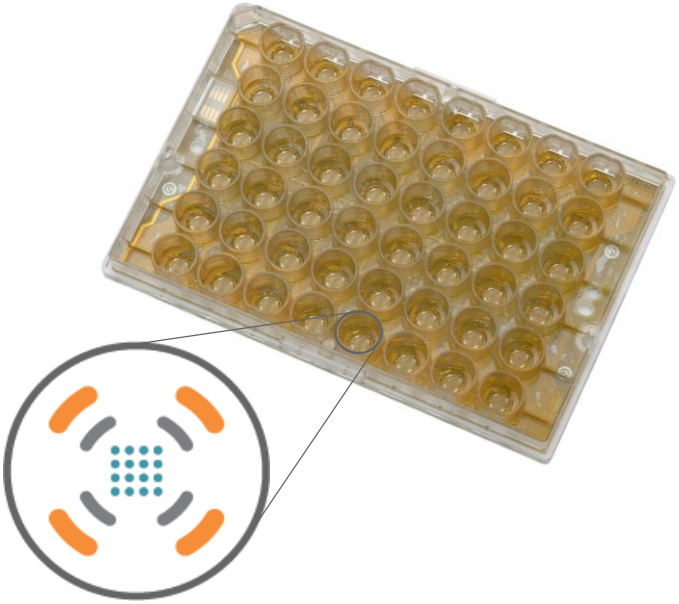
Cardiomyocytes or neurons cultured on microelectrode arrays (MEAs) create an accessible platform for studying heartbeats and brain activity in a dish. Axion BioSystems recommends plating cells in a small droplet centered over the electrode array (cell spotting) to conserve cells and ensure robust electrical activity near the recording electrodes. To make MEA plate prepara-tion quicker and easier than ever before, Axion developed the AccuSpot Classic MEA™ 48 plate.

Superior cell droplet placement

The AccuSpot Classic MEA 48 plate has on-plate spotting guides in the bottom of each well that confine the droplet over the recording electrodes. This enables more precise cell plating with less effort. Simply position the pipette between the AccuSpot features and release the droplet to ensure a perfectly centered, rounded droplet in every well.



Base of the AccuSpot Classic MEA 48 plate with the wells removed. On-plate spotting guides (patent pending) center the droplet over the recording electrode array, increasing plate preparation speed and accuracy.



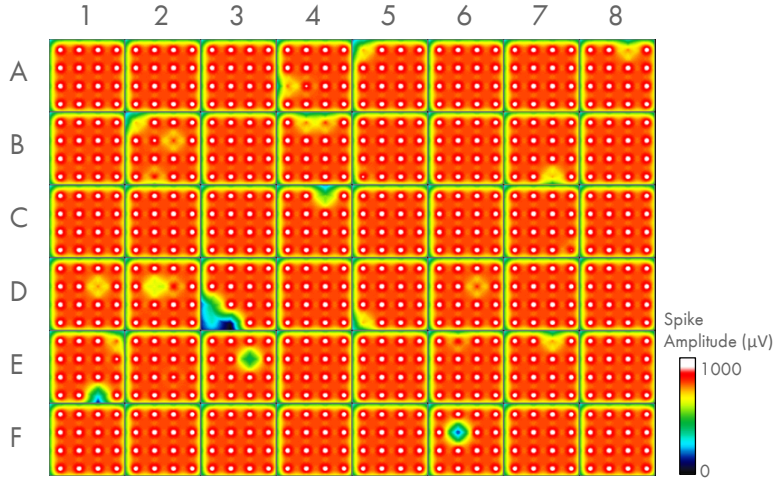
AccuSpot™ Classic MEA 48 plate (M768-KAP-48A) for the Maestro MEA system. Inset: Schematic of single well illustrating the AccuSpot on-plate spotting guides (gray), recording electrodes (blue), and grounds (orange).

THE ACCUSPOT ADVANTAGE

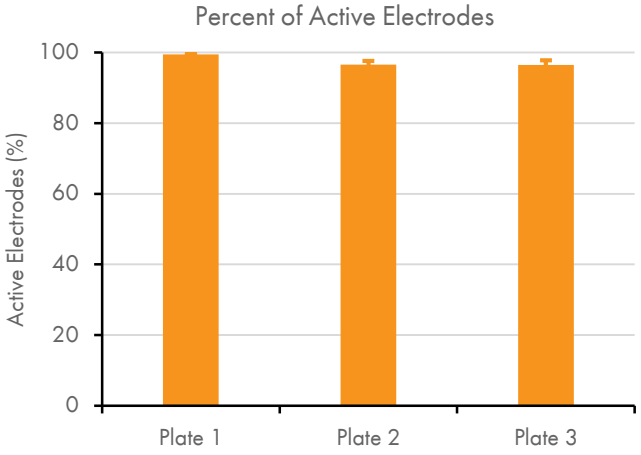
- On-plate spotting guides ensure the cell droplet is centered over the electrodes in every well
- Spotting surface coatings and cells on MEA plates is now easier and faster than ever
- Centering the cell droplet improves electrode coverage resulting in more electrodes with detectable signals
- Increased speed and accuracy of plate preparation enables higher-throughput applications
- Accurate cell spotting every time

IMPROVE THE QUALITY AND CONSISTENCY OF YOUR ASSAY

On-plate spotting guides in the AccuSpot Classic MEA 48 plate ensure accurate drop placement every time, producing consistent cell coverage over the entire electrode array. The result is improved electrical activity detected in the MEA assay, increasing the reliability of reported endpoints. Exemplary data from three AccuSpot Classic MEA 48 plates plated with iCell² cardiomyocytes (CDI) at two different sites shows excellent cell coverage and activity.



Activity Map illustrating excellent recorded activity across the AccuSpot Classic MEA 48 plate (16 electrodes per well). Data shown is the Depolarization Spike Amplitude from iCell² CMs (Cellular Dynamics International) at day 7 post-thaw.



Percent of active electrodes across 3 AccuSpot Classic MEA 48 plates. Displayed are the mean ± standard error across all 48 wells on each plate (16 electrodes per well, 768 electrodes per plate).

ENHANCED USER EXPERIENCE

AccuSpot technology now makes spotting surface coatings and cells on MEA plates easier and faster than ever before. We asked the cell culture experts at Cellular Dynamics International (CDI) to share their experiences working with the new AccuSpot Classic MEA 48 plate.

ACCUSPOT: CDI's USER EXPERIENCE

- "The droplet placement was always exactly centered."
- "I never had to 'pull' the droplet over with the pipette tip."
- "The droplets appear perfectly round, not oblong or stretched."
- "I don't need to be as precise with droplet placement as the AccuSpot feature centers the droplet over the electrodes."
- "This means I can work quicker, taking probably half the time to seed a plate."

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