VitroPrime™ Spread-Attach Plates

For effortless and reliable hydrogel adherence and cell attachment

TheWell BIOSCIENCE

- **Homogenous hydrogel spreading:** Achieve a seamless and uniform surface, eliminating edge effects.
- **Superior hydrogel adherence:** Ensure impeccable attachment that addresses the issue of gel floating
- **Quickly adapts to serum-free or low-serum environments:** Optimize cost-effective cell culture, minimizing serum interference.

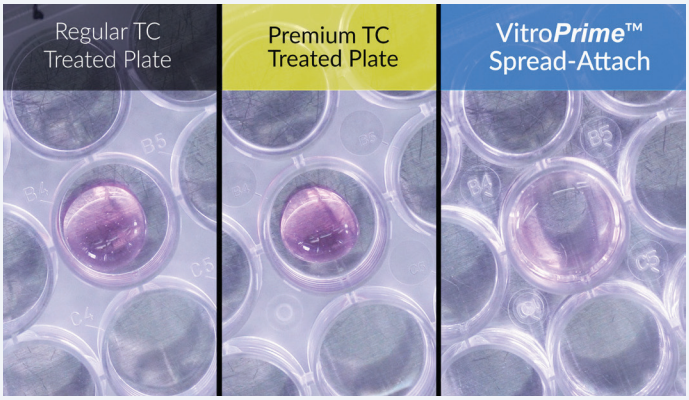


Figure 1. **An overhead view capturing the distribution of hydrogel mixture across three distinct tissue culture treated plates (Regular TC, Premium TC, VitroPrime™ Spread-Attach).** The hydrogels in the regular and premium tissue culture treated plates did not distribute homogeneously throughout the surface. In contrast, VitroPrime Spread-Attach Plates ensure even hydrogel spreading.

The Vitro*Prime*™ Spread-Attach Plates offer unparalleled advantages for hydrogel-based 3D cell culture. Experience **swift and homogeneous hydrogel spreading**, **ensuring impeccable attachment and mitigating the notorious gel floating issue**. The plate is engineered to provide a seamless and uniform environment for your hydrogel-based experiments, thus **eliminating the edge effects for flat gel surfaces**.

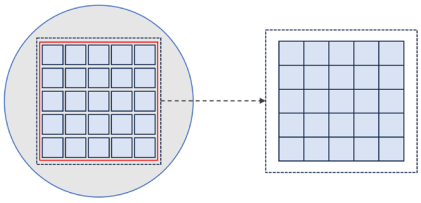
Beyond its specialty in 3D cell culture, VitroPrime™ Spread-Attach Plates excel in 2D cell culture applications, setting a new standard for cell adherence. The unique surface treatment of these plates **ensures superior cell attachment,** promoting rapid growth and heightened yields, especially for cell types that are adherent cultures involving primary cells, neuronal cells, stem cells, and other challenging cell types. The versatility of VitroPrime™ Spread-Attach Plates help cells to adapt quickly to serum-free or low-serum culture conditions, making them indispensable for experiments seeking to minimize serum interference.

Particularly optimized for xeno-free biofunctional **VitroGel** systems, the combination of VitroGel and the VitroPrime™ Spread-Attach Plates can unlock the full automation potential of hydrogel-based 3D cell culture.

Data and References

Evaluating Gel Spreading and Cell Attachment - Vitro*Prime* Spread-Attach 12-Well v. Standard Plate

We meticulously compared two 25-stitched z-planes capturing OP9 cells in the VitroGel Hydrogel Matrix within a 12-well plate—Standard Plate #1 and VitroPrime™ Spread-Attach Plate 12-Well. The images were compiled by selecting the z-plane with the 2D projection on each plate and stitched to evaluate cell attachment and the flatness of the hydrogel surface. Notably, VitroPrime™ Spread-Attach 12-Well plate demonstrated superior performance, ensuring flat hydrogel surface for even gel spreading and cell attachment.



Selection of the same z-steps for all fields

Images of the same z-step are stitch together

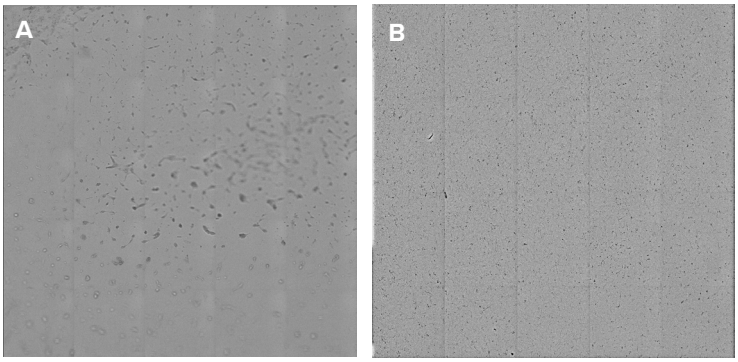
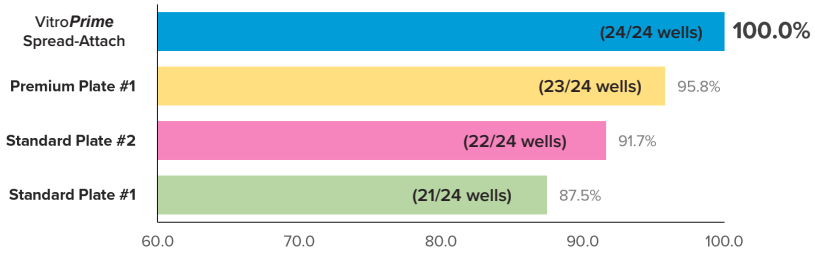


Figure 2. A comparison of two 25-stitched z-planes within a well of a 12-well plate
A. Standard plate #1 shows uneven hydrogel surface by showing attach cells in different focus plane. **B.** VitroPrime™ Spread-Attach 12-Well plate. shows flat hydrogel surface by presenting homogeneous cell spreading and attachment on the same plane.

Comparison of Hydrogel Adherance - Vitro*Prime*™ Spread-Attach v. Others

We investigated the effectiveness of VitroPrime Spread-Attach and three other plasticswares in mitigating the hydrogel floating issue using VitroGel ORGANOID-3 (VHM04-3) hydrogel.

The method involves combining hydrogel and basal medium in a 2:1 ratio, followed by adding 300 uL of VitroGel ORGANOID-3 hydrogel mixture to each well of a 24-well plate. The hydrogel is incubated for 20 minutes, after which 300 uL of cover medium is added on top. The plates are then incubated at 37°C to assess the ability of VitroPrime plasticware to prevent hydrogel floating.



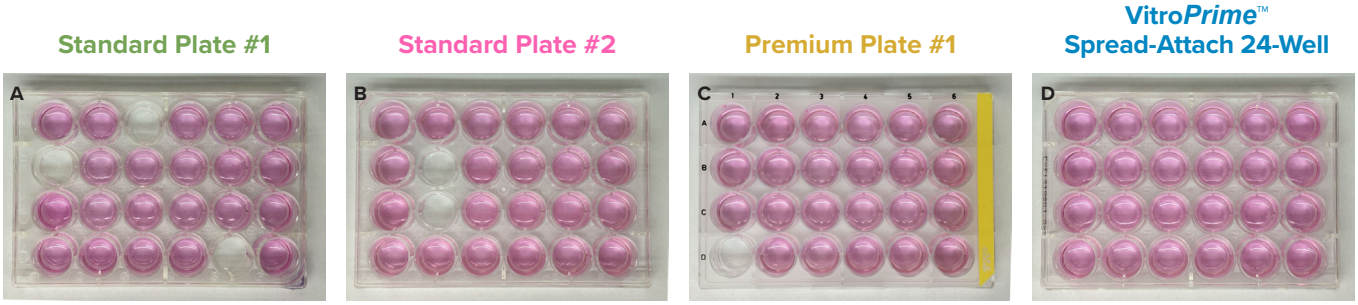


Figure 3. Comparison of hydrogel adherence on four different quality 24-well plates in 48 hours.
A. Standard Plate #1 demonstrates hydrogel adherence in 21 out of 24 wells. B. Standard Plate #2 exhibits hydrogel adherence in 22 out of 24 wells.
C. Premium Plate #1 showcases hydrogel adherence in 23 out of 24 wells. D. VitroPrime™ Spread-Attach 24-Well plate exhibit flawless hydrogel adherence in all 24 wells.

Product	Well No.	Well Size	Packaging Size	Cat. No.
Vitro*Prime*™ Spread-Attach Plates	6-well	9.5 cm^2	50 plates/case	VP-SA6W
	12-well	3.85 cm^2	50 plates/case	VP-SA12W
	24-well	1.9 cm^2	50 plates/case	VP-SA24W
	48-well	0.7 cm^2	50 plates/case	VP-SA48W
	96-well	0.3 cm^2	50 plates/case	VP-SA96W

Explore all our VitroPrime and VitroGel-Based products here:
www.thewellbio.com/product/vitroprime-spread-attach-plates/

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3D Cell Culture and Beyond

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