

# Take your cell-based assays to the edge

Nunc Edge 2.0 96-Well Plates

## The ideal solution for efficient, robust cell growth

- Reduce edge effect for full-plate results
- Yield viable cells with well-to-well consistency
- Increase productivity for cell-based assays

## Uniquely designed to prevent edge effect

When it comes to growing healthy, viable cells in extended microplate cultures, researchers are often faced with the pressing issue of evaporation. In order to mitigate the damages caused by evaporation, notably among the highly vulnerable perimeter wells, researchers typically leave the outer wells in a standard 96-well plate empty, ultimately sacrificing 37.5% of each plate. With **Thermo Scientific™ Nunc™ Edge 2.0 96-Well Plates**, this work-around strategy is no longer necessary.

## Optimized for extended microplate cultures

### Reclaim full use of your 96-well plate

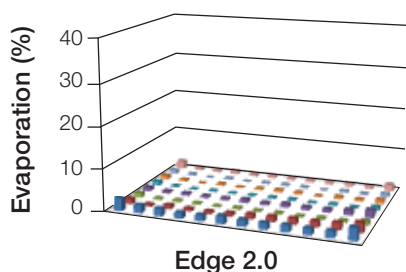
The Edge 2.0 plate provides an ideal, efficient, and economical solution for preventing evaporation and, in turn, the risks associated with edge effect. Uniquely designed with a surrounding moat that serves as an evaporation barrier, the Edge 2.0 plate offers researchers the freedom to expand their microplate cultures to all 96 wells without concern of evaporation (Figure 1).

## Achieve full-plate consistency

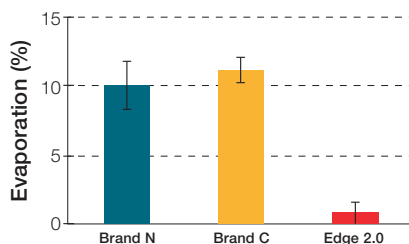
Following an incubation period of up to four days, Edge 2.0 plates help reduce the rate of overall plate evaporation to <2% and yield consistent, viable cells across the entire 96-well plate, leading to improved productivity for cell-based assays (Figures 2 and 3).

## Improve your process and results

Being able to use every well in an Edge 2.0 plate means that researchers can more efficiently plan their experiments, all with potentially less cost and related product waste.



**Figure 1. Individual well evaporation.** The built-in moat in the Nunc Edge 2.0 plate effectively eliminates edge effect in the perimeter wells caused by evaporation.

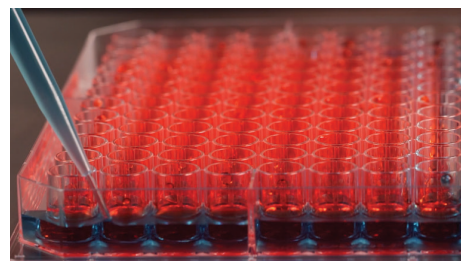


**Figure 2. Whole-plate evaporation.** The built-in moat in the Nunc Edge 2.0 plate significantly reduces whole-plate evaporation as compared to conventional 96-well plates.

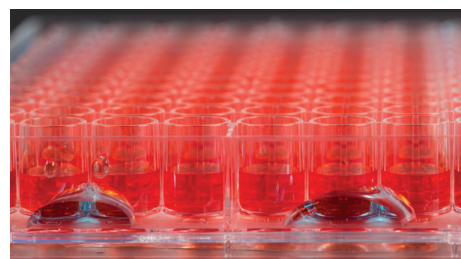
## Prevent evaporation in three simple steps



1. Utilize all 96 wells.



2. Fill surrounding moat with 1.7 mL sterile water or media.



3. Evaporation takes place in the moat and not the outer wells, preserving cell viability and maintaining well-to-well consistency.

## Maintain cell viability and consistency

The Nunc Edge 2.0 plate helps eliminate the hazards caused by differential evaporation rates that are known to cause variability in both biochemical and cell-based assays. In fact, a volume loss of as little as 10% can concentrate media components and metabolites enough to alter cell physiology. When this occurs, cell growth and performance can be affected and heterogeneous or biased results can occur.

## Making new cancer research applications possible

### Cell-based kinetic measurements using the Varioskan LUX microplate reader

Using the Edge 2.0 plate in conjunction with the Thermo Scientific™ Varioskan™ LUX multimode microplate reader, the filled moats of the plate function as passive humidity control. This allows for simultaneous incubation and signal detection during long-term applications with living cells inside the Varioskan LUX multimode microplate reader with integrated gas module, without significant evaporation of the liquid in the sample wells. In several collaborative studies, it was shown that applications that previously could not be done, now had become possible.



Plates with moat  
Edge 2.0



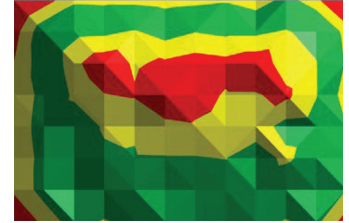
Plates without moat  
Brand N



Brand E



Brand C



Cell viability,  
variance from mean

■ <5%

■ 5%–10%

■ >10%

**Figure 3. Cell viability.** Variance in cell viability is minimized in plates with the built-in moat compared to those without the moat. The Nunc Edge 2.0 plate with larger built-in moat more effectively improves cell viability consistency across the entire plate.

Ordering information

| Surface                             | Color | Well volume (µL) | Sterile | With lid | Units per pack/case | Cat. No. |
|-------------------------------------|-------|------------------|---------|----------|---------------------|----------|
| <b>Nunc Edge 2.0 96-Well Plates</b> |       |                  |         |          |                     |          |
| Nunclon Delta treated*              | Clear | 400              | Yes     | Yes      | 1/50                | 167425   |
|                                     |       |                  | Yes     | Yes      | 10/160              | 167542   |
|                                     |       |                  | Yes     | No       | 1/50                | 167574   |
|                                     |       |                  | Yes     | No       | 10/160              | 167554   |
| Non-treated                         | Clear | 400              | Yes     | Yes      | 1/50                | 267427   |
|                                     |       |                  | Yes     | Yes      | 10/160              | 267544   |
|                                     |       |                  | Yes     | No       | 1/50                | 267576   |
|                                     |       |                  | Yes     | No       | 10/160              | 267556   |
|                                     |       |                  | No      | No       | 10/160              | 267566   |
|                                     |       |                  | No      | Yes      | 10/160              | 267578   |

\* Thermo Scientific™ Nunclon™ Delta is a Nunc-certified, cell culture–treated surface that facilitates cell attachment and growth—ideal for most applications with adherent cell cultures.

Find out more at [thermofisher.com/edgeplate](http://thermofisher.com/edgeplate)