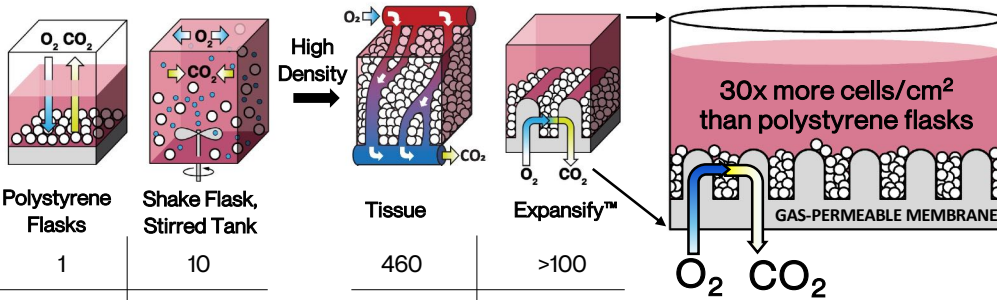


# [U] XDemics

Expanding automation possibilities.

## Overcoming the O<sub>2</sub> bottleneck enables tissue-like cell density *in vitro*

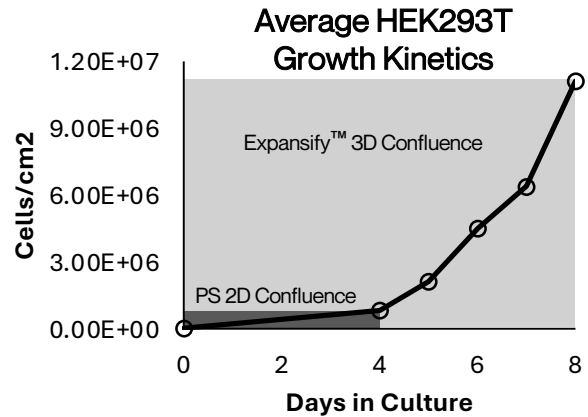
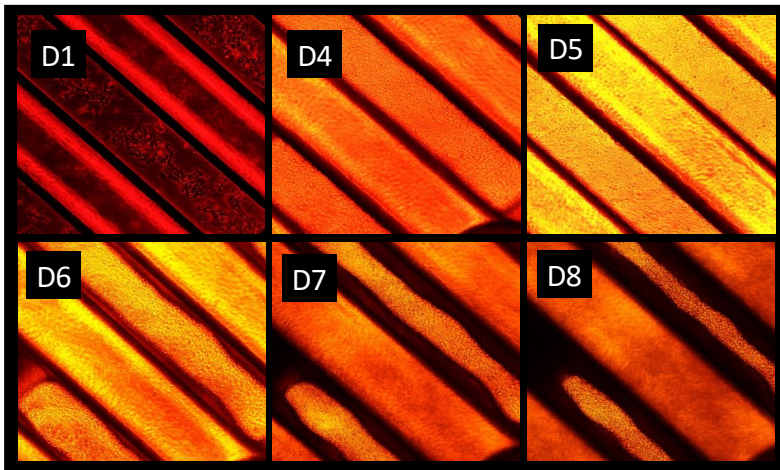
Expansify™ respiring cultureware features a gas-permeable membrane engineered for optimal oxygenation to enable intensified 3D culture of adherent, spheroid, or suspension cells.



### Expansify™ enables:

- Optimal oxygenation
- Shear-free environment
- Cell retention
- Easy media exchange
- Linear scalability
- 3D culture

	Polystyrene Flasks	Shake Flask, Stirred Tank	Tissue	Expansify™
Mammalian Cells (1E6 cells / mL)	1	10	460	>100
O <sub>2</sub> Turnovers, k <sub>1a</sub> (1/hr)	0.5	5	118	>100

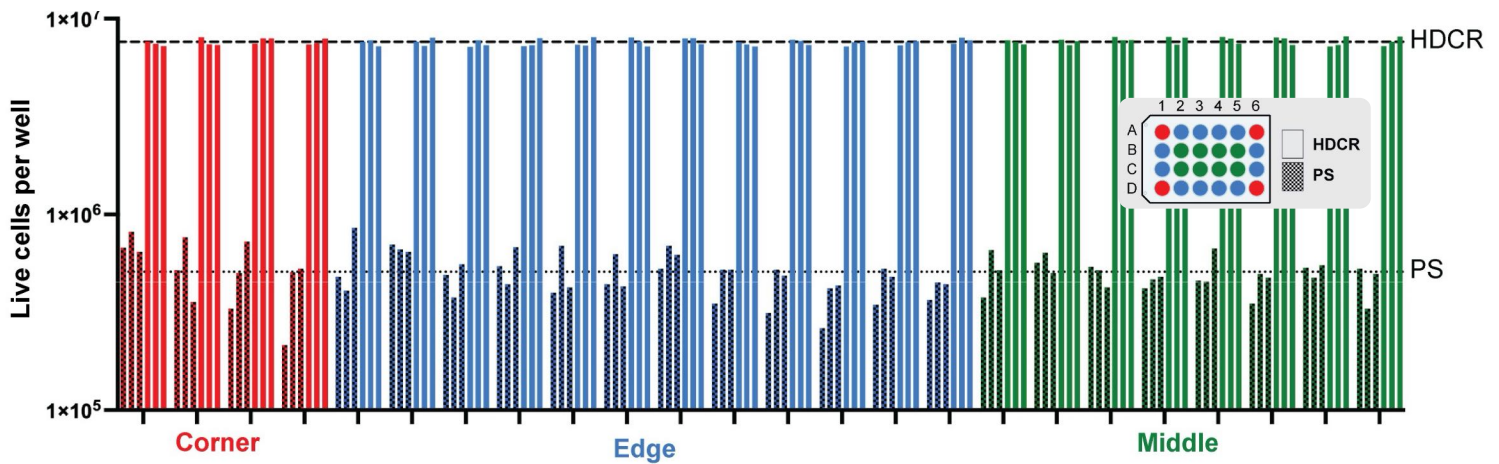


HEK293T cultured in vitronectin ECM coated Expansify™ plates achieve >450-fold expansion in 8 days (D0= 2.5E4 cells/cm<sup>2</sup>; D8= 1.1E7 cells/cm<sup>2</sup>) with >90% viability.

## Expansify™ Plate and Tray Product Line

Yield (per cm <sup>2</sup> )	96-Well Launch 2026	24-Well Available Now	6-Well Launch 2027	Single-Well Available Now	Gigacell™ Tray Launch 2026 (Beta Units H1)
Expansify™: >3E6 cells					
Surface Area	0.32 cm <sup>2</sup> / well	2 cm <sup>2</sup> / well	8 cm <sup>2</sup> / well	70 cm <sup>2</sup> / well	387 cm <sup>2</sup>
Total Cells (e.g. HEK293T)	0.5 million/ well	20 million/ well	80 million/ well	500 million/ plate	>3.5 billion/ tray
Polystyrene: ~1E5 cells  -100x Yield / cm <sup>2</sup> Versus Polystyrene	 16 x 6-well plates	 24 x T-75	 6-9 x T-225	 1 x 10-Stack 3 x 1720 cm <sup>2</sup> flask	 6x 10-stack

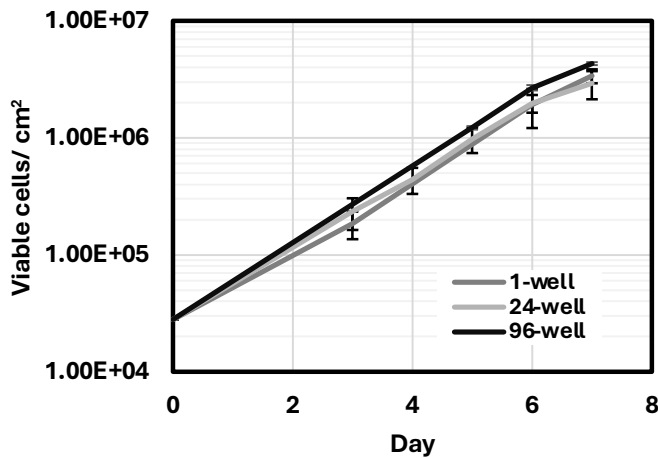
# Eliminate Edge Effects with Expansify™



Raw suspension K562 cell count distribution across corner (red), edge (blue), and internal (green) wells. The Expansify™ plates show tightly clustered, consistent cell counts in all well positions, indicating uniform cell growth and absence of positional bias. In contrast, the polystyrene (PS) plates display broader variability, particularly at corner and edge wells, suggesting non-uniform growth and the presence of mild edge effects.

## Linearly Scalable

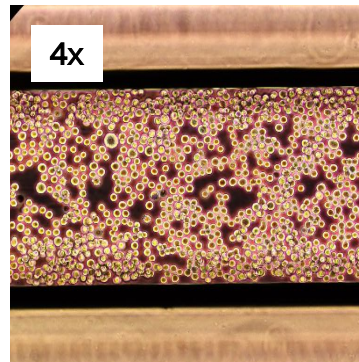
### HEK293T Growth Kinetics in Expansify™ Product Family



Expansify™ culture ware demonstrates consistent scalability over a 150-fold scale-up with no process optimization.  $2.5 \times 10^5$  HEK293T cells/cm<sup>2</sup> were seeded and expanded for 7 days. 96-well (n=1; DT= 22.6 hrs), 24-well (n=3; DT= 24.4 hrs), 1-well plates (n=3; DT=23.8 hrs).

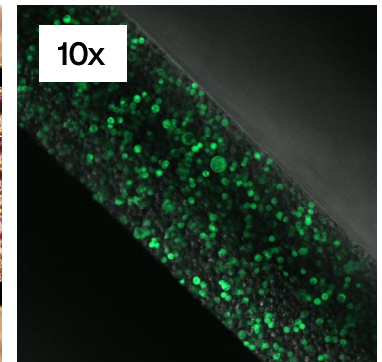
## Imaging Compatible

### Phase-contrast *ECHO Revolve*



$3 \times 10^5$  suspension K562 cells/cm<sup>2</sup>.

### Confocal Microscopy *Zeiss LSM 980- 488 nm*



Transfected GFP+ Expi293F,  $5 \times 10^5$  cells/cm<sup>2</sup>.

## Automation Ready

### Cellafa Bioscience



Maholo automated cell culture system using an Expansify™ 1-well.

### Agilent Technologies



Automated centrifuge- G5582A loading an Expansify™ 24-well.

[www.XDemics.com](http://www.XDemics.com)

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