



# Vitronectin XF™

Xeno-Free, Extracellular Matrix (ECM)



# Vitronectin XF™

## ECM for Mesenchymal (MSC) and Induced Pluripotent Stem Cells (iPSCs)

Vitronectin XF is a human recombinant ECM that promotes cell proliferation, maintains pluripotency, and supports normal colony morphology for MSCs and iPSCs. Vitronectin XF is xeno-free and supports cell growth and differentiation under serum-free, feeder-free conditions.

Take control of your culture environment with Vitronectin XF and gain more consistent cell populations and reproducible results in downstream applications.

### Defined

Comprised of a single, defined, recombinant full-length human vitronectin sequence expressed under chemically-defined conditions.

### Xeno-Free

Prepared under xeno-free conditions, create a completely xeno-free system when using Vitronectin XF with chemically-defined media.

### Easy to Use and Proven

Can be used at room temperature and has demonstrated ability to support normal colony morphology, proliferation, and pluripotency in iPSCs and MSCs.



## An Alternative to Matrigel®

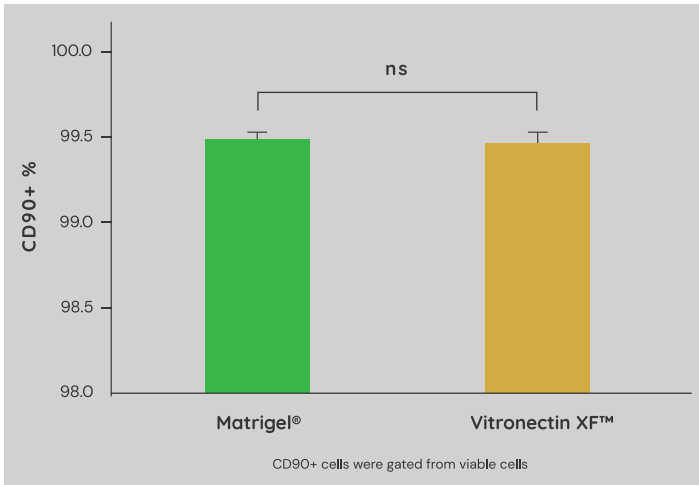
Stem cells have incredible therapeutic potential for regenerative medicine and cell therapy. However, bringing successful therapeutics to the market requires well-defined, consistent products. Standardizing your stem cell process development early on to ensure consistency can expedite your research and development efforts.

Performance			Ease of Use			Regulatory Compliance		
Vitronectin XF		Matrigel	Vitronectin XF		Matrigel	Vitronectin XF		Matrigel
Supports	Proliferation	Supports	Non-treated well plate	Cultureware	Culture-treated well plate	Human	Source	Mouse
Supports	Pluripotency	Supports	Room temperature	Temperature	Cold/Ice	Fully defined, simplified	Composition	Undefined, heterogeneous

Utilizing Vitronectin XF, a xeno-free, defined, FDA-friendly ECM that encourages cell proliferation, maintains pluripotency, and is produced in large lot sizes translates to simpler scale-up and accelerates the all-important pathway for regulatory approval for complex regenerative medicine and cell therapy applications.

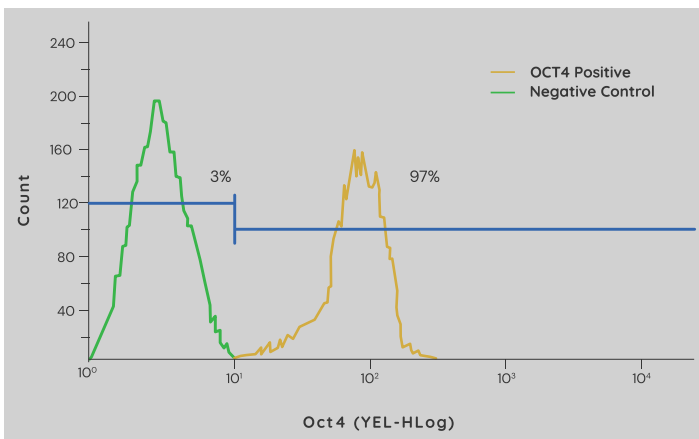
# Standardize Stem Cell Process Development

## Support Cell Stemness and Viability in MSCs



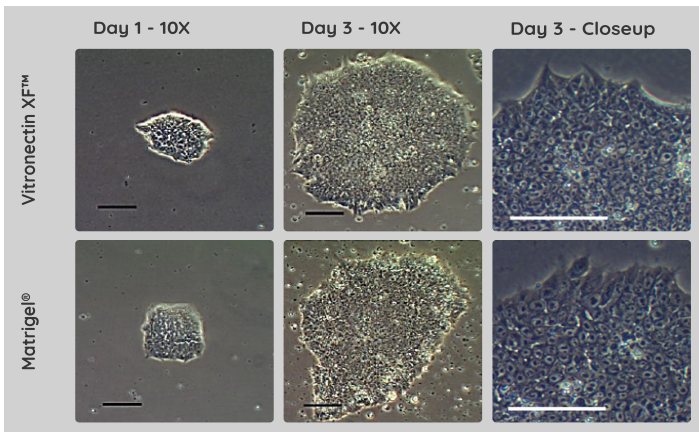
Vitronectin XF performs equivalently to Matrigel ECM in attributes critical to the success of MSC studies. Pluripotency as assessed by the expression of CD90, cellular morphology, as well as proliferation and viability (data not shown) are equivalent to the murine-based Matrigel ECM. As a defined, xeno-free ECM, Vitronectin XF is a superior choice to streamline regulatory hurdles and consistency in your development.

## Maintain Pluripotency in iPSCs



Vitronectin XF maintain iPSCs in feeder-free conditions, without compromising pluripotency. Studies have demonstrated Vitronectin XF's ability to preserve multiple pluripotency markers after several passages. Cryopreserved human iPSCs were thawed and recovered, then split on Vitronectin XF plates. After 5 passages, the cells were subjected to flow cytometry testing for the pluripotency markers Oct4 (yellow curve), SSEA4 (not shown), and Tra1-81 (not shown). The green curve indicates negative control cells.

## Maintain Normal Colony Morphology in iPSCs



Morphological characteristics play a critical role in indicating pluripotency in iPSCs, and in determining the time of passaging in both iPSC and MSC assays. Human iPSCs growing on Matrigel in mTeSR1 were passaged using Cell Release Buffer and replated on Matrigel or Vitronectin XF. Colonies were photographed daily after refeeding. Scale bars represent 100 microns. Vitronectin XF maintains normal colony morphology for iPSCs comparably to Matrigel.

# Vitronectin XF™ Ordering Information

Catalog Number	Product Name	Concentration	Size	Price
520	Vitronectin XF™	250µg/mL	2 mL	\$85

## Product Specifications

<b>Classification</b>	Xeno-free
<b>Concentration</b>	250 µg/mL
<b>Quality</b>	Research use
<b>Purity</b>	≥ 85% by SDS-PAGE and Coomassie blue staining
<b>Sterility</b>	No growth at 14 days
<b>Endotoxin</b>	≤ 1.25 EU/mL
<b>Mycoplasma</b>	Negative
<b>Reactivity</b>	None known
<b>Chemical Stability</b>	Stable under normal conditions
<b>Shipping Conditions</b>	Dry ice
<b>Storage</b>	-80°C
<b>Shelf Life</b>	365 days
<b>Thawing</b>	Thaw at room temperature. If not used immediately, store at 2-8°C for up to two weeks. Alternatively, aliquot and store at -20°C or -80°C.
<b>Research Category</b>	Stem cell research

