Cultrex™ Matrices for Stem Cell Culture

Improve the consistency and efficiency of your feeder-free pluripotent stem cell cultures with Cultrex Basement Membrane Extracts (BME). Offered in three formulations to support stem cell expansion and differentiation, these matrices are hydrogels purified from Engelbreth-Holm-Swarm (EHS) tumor, offering high extracellular matrix protein concentration. Each lot of BME undergoes extensive evaluation for performance consistency and sterility to ensure you can build reproducible and robust stem cell cultures.

- Supports human iPSC and ESC expansion and differentiation under feeder-free conditions
- Extensively quality controlled for high performance consistency
- Reduced growth factor (RGF) formulation provides a more defined culture system
- Sterility tested for bacterial and fungal growth and pathogen-tested
- Bulk quantities and lot reservations available

<table>
<thead>
<tr>
<th>Name</th>
<th>Applications</th>
<th>Sizes</th>
<th>Catalog #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultrex UltiMatrix RGF BME</td>
<td>• hiPSC expansion and differentiation</td>
<td>1 mL, 5 mL, 10 mL</td>
<td>BME001</td>
</tr>
<tr>
<td>Cultrex Stem Cell Qualified RGF BME</td>
<td>• hiPSC and hESC expansion and differentiation</td>
<td>1 mL, 5 mL, 10 mL</td>
<td>3434-010-02</td>
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<tr>
<td>Cultrex ReadyBME, Stem Cell Qualified, RGF</td>
<td>• hiPSC and hESC expansion and differentiation</td>
<td>50 mL</td>
<td>3434-050-RTU</td>
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<td></td>
<td>• Pre-diluted to reduce preparation time</td>
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Robust Induced Pluripotent Stem Cell Expansion

Figure 1 Human iPSCs were passaged 5 times using either Cultrex UltiMatrix RGF BME (green, Cat. # BME001) or an alternate commercial BME matrix (grey) as a substrate. Cultrex UltiMatrix BME showed robust iPSC expansion compared to the normalized levels of the alternate matrix.

Learn more about Cultrex BME | bio-techn.com/cultrex
Forms Compact iPSC Colonies whilst Maintaining Stemness

Figure 2 Left: Erythroblasts reprogrammed into iPSCs cultured on Cultrex Stem Cell Qualified RGF BME (Cat. #3434-005-02) show healthy compact colony morphology with clearly defined smooth edges. Data courtesy of the Harvard Stem Cell Core. Right: iPSCs cultured with Cultrex express undifferentiated stem cell markers, such as, SOX2 (red), along with E-Cadherin (green), and DAPI (blue).

Displays Greater iPSC Differentiation Efficiency

Figure 3 iPSCs were grown on either Cultrex Stem Cell Qualified RGF BME (Cat. #3434-005-02) or an alternate commercial matrix. Cells pre-cultured on Cultrex showed a greater efficiency to develop into hematopoietic stem cells (CD34+,CD45+). Data courtesy of the University of Colorado.

“...We use Cultrex to support hPSC applications in the context of a 2D growth substrate. We also use it as a substrate to do 3D modelling and organoid generation with hPSCs. We pursued rigorous QC testing, tested 10 cell lines over 20 passages through various functional assays and found it to be an incredibly stable and consistent product. We have tested approximately 20 lots of Cultrex BME. Through those lots, not one has failed our internal QC paradigm.”

Ken Diffenderfer
Former Director, Salk Institute Stem Cell Core

Ken Diffenderfer shares his experience with Cultrex BME. Watch it on YouTube.

Learn more about Cultrex BME and Matrix Proteins | bio-techne.com/cultrex
View Solutions for Stem Cell Research | bio-techne.com/research-areas/stem-cells