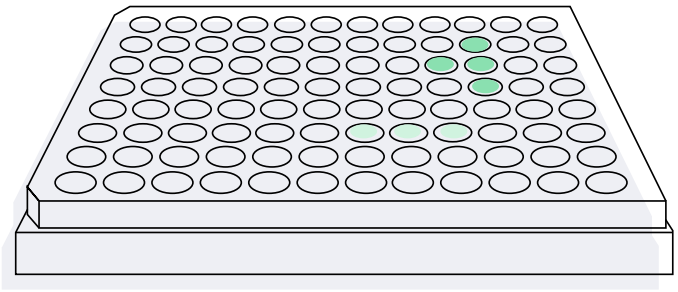
CAPTIVATE BIO™

screenMATRIX

Product Fact Sheet



A simple tool to find the best environment for any cell type

The screenMATRIX is a 96-well plate coated with a variety of chemically defined, extracellular microenvironments which help identify the optimal culture environment based on a specific cell type. The screenMATRIX is assembled using the glycosaminoglycan sugars (GAGs) dextran sulfate, heparin, chondroitin and dermatan. With the exception of the synthetic dextran sulfate, these molecules are naturally present in the extracellular matrix (ECM) and have important roles in cell signaling as well as growth factor binding. Peptides, which mimic various ECM proteins, complete the composition of the screenMATRIX.

The screenMATRIX is an easy, ready-to-use tool in identifying the optimal culture condition for your cell type.

Quality

- Manufactured following cGMP and ISO 9001 standards.
- Tested and shown to be non-toxic according to ISO 10993-12 and ISO 10993-5 standards.
- Meets Sterility Assurance Level (SAL) of 10-3 according to standard ISO 11137-2 and ISO/TS 13004.
- Certificate of Analysis includes visual inspection, material concentration, cell growth, and cell attachment assay results.
- European Medicine Agency ATMP Compliance (in process).

User Tips

- Include a positive control to benchmark against your standard protocol.
- Please use your current seeding density. We do not recommend making changes until you've tested your standard protocol on a plate.
- We recommend using one plate per cell culture medium.
- To reduce serum from your cultures, please run one plate mimicking your current conditions to create a control. Then, add additional plates titrating down until you determine the ideal concentration. You may find that a small amount of serum is still needed to grow your cells.
- Please do not supplement plates with attachment factors such as vitronectin, laminin, fibronectin, or any other ECM. Plates are designed to work without these attachment factors.
- Do not scratch the surface of the plates when pipetting – this can potentially result in cells being exposed to the tissue culture plastic.
- Please note that it is not uncommon for only a few of the wells to show results based on cell type and cell culture media used during your assay.

screenMATRIX Plate Map

About 70% of the screenMATRIX 96-well plate will not show any cell growth or adhesion while the remaining wells will show various degrees of activity. Only a few wells should show your ideal conditions. We recommend a minimum of 3 plate replicates to confirm results, however, the total number of replicates necessary may vary based on cell type or the sensitivity of your assay. Please note that if you see 95-100% of the wells showing a result, please contact our technical support team as there may be interference from the cell type or media conditions used.

		1	2	3	4	5	6	7	8	9	10	11	12
Dextran	A	FGF peptide + RGD	Fibronectin peptide	RGD	laminin peptide 1	laminin peptide 2	laminin peptide 3	laminin peptide 4	laminin peptide 5	laminin peptide 6	laminin pep. 7 + RGD	Vitronectin peptide + RGD	Collagen 1 peptide
	B	Vitronectin peptide	Bone sialoprotein pep.	Osteocalcin peptide	Osteopontin peptide	BMP-2 peptide + RGD	E-Cadherin peptide	Tenascin peptide 1	Tenascin peptide 2	Perlecan peptide + RGD	TGF peptide	NCAM peptide	Collagen IV peptide
Heparin	C	FGF peptide + RGD	Fibronectin peptide	RGD	laminin peptide 1	laminin peptide 2	laminin peptide 3	laminin peptide 4	laminin peptide 5	laminin peptide 6	laminin pep. 7 + RGD	Vitronectin peptide + RGD	Collagen 1 peptide
	D	Vitronectin peptide	Bone sialoprotein pep.	Osteocalcin peptide	Osteopontin peptide	BMP-2 peptide + RGD	E-Cadherin peptide	Tenascin peptide 1	Tenascin peptide 2	Perlecan peptide + RGD	TGF peptide	NCAM peptide	Collagen IV peptide
Chondroitin	E	FGF peptide + RGD	Fibronectin peptide	RGD	laminin peptide 1	laminin peptide 2	laminin peptide 3	laminin peptide 4	laminin peptide 5	laminin peptide 6	laminin pep. 7 + RGD	Vitronectin peptide + RGD	Collagen 1 peptide
	F	Vitronectin peptide	Bone sialoprotein pep.	Osteocalcin peptide	Osteopontin peptide	BMP-2 peptide + RGD	E-Cadherin peptide	Tenascin peptide 1	Tenascin peptide 2	Perlecan peptide + RGD	TGF peptide	NCAM peptide	Collagen IV peptide
Dermatan	G	FGF peptide + RGD	Fibronectin peptide	RGD	laminin peptide 1	laminin peptide 2	laminin peptide 3	laminin peptide 4	laminin peptide 5	laminin peptide 6	laminin pep. 7 + RGD	Vitronectin peptide + RGD	Collagen 1 peptide
	H	Vitronectin peptide	Bone sialoprotein pep.	Osteocalcin peptide	Osteopontin peptide	BMP-2 peptide + RGD	E-Cadherin peptide	Tenascin peptide 1	Tenascin peptide 2	Perlecan peptide + RGD	TGF peptide	NCAM peptide	Collagen IV peptide

FAQs

1. **Are there wells that always show a positive or negative result?** Due to various cell types reacting and binding to different conditions, we have not established any trends. The hypothesis is that microenvironments are unique, and your cell type and media conditions will ultimately impact the well reactions. Unfortunately, we are unable to predict an outcome or recommend a specific biomatrix condition.

2. **What is the recommended seeding density and/or when should we passage cells?**
We recommend that you seed your plate at your current seeding density or at a high enough density where the cells are already in logarithmic expansion phase. Typically, cells should be passaged during Days 3-5. We have seen that Day 3 has shown to be the perfect time to passage, however, this is highly dependent on user, seeding density, cell type, media, and other culture conditions.

3. **How do we analyze our results?**
screenMATRIX plates are optimal for phase contrast or fluorescent microscopic examinations; well suitable for colorimetric assays and standard DNA, RNA and protein isolation protocols; plus, compatible with automated systems.

4. **What do we do once we see the results?**
Once you determine your ideal culture condition, please contact our customer service team to discuss customization including cultureware selection, surface requirements, or additional validation services available.

5. **What are the differences between peptides?**
Our peptide sequences and concentrations are considered proprietary.

For additional product or technical information, please visit www.captivatebio.com, email orders@captivatebio.com, or call customer service at (617) 607-4017.