

MAPTrix™ ECM Line of Products

Extracellular Matrix Protein Mimetics



Kollodis BioSciences' Mussel Adhesive Protein based matrix (MAPTrix™) ECM line of products are coating reagents with genetically incorporated bioactive peptides (recognition peptides) which mimic the extracellular matrix (ECM) activity of collagen (MAPTrix™ C), cadherin (MAPTrix™ E), fibronectin (MAPTrix™ F), laminin (MAPTrix™ L), nidogen (MAPTrix™ N) and vitronectin (MAPTrix™ V) proteins; and, the ECM activity of heparin-binding proteins (MAPTrix™ H). Unlike conventional chemistry approaches, such as peptide synthesis/immobilization, MAPTrix™ coatings provide a simple, convenient and highly reproducible method for engineering tailored ECM surfaces that bind adhesion receptors and promote cell adhesion. MAPTrix™ ECM products can

be used alone or in combination with other cell culture products, including different MAPTrix™ ECM products. Kollodis BioSciences currently provides a wide array of MAPTrix™ ECM products in its expanding MAPTrix™ ECM line of products.

Comparison of MAPTrix™ & Some Common ECM Proteins

Feature	MAPTrix™	Cadherin	Collagen	Fibronectin	Laminin	Vitronectin
Animal Component Free	✓	✗	✓	✗	✗	✗
Stability*	> 6 mos.	< 6 mos.	< 6 mos.	< 6 mos.	< 6 mos.	< 6 mos.
Ready-To-Use	✓	✗	✓	✗	✗	✗
Defined Surface**	✓	✗	✗	✗	✗	✗
Cost	\$	\$\$\$\$	\$\$	\$\$	\$\$	\$\$\$\$

* mos. = months; ** Defined Surface = The regulation/control over bioactive peptide density &/or its spatial distribution.

Features & Benefits

- Animal-component free, *E. coli*-protein free, toxic chemical free & biocompatible.
- Serum-free and low-serum cell culture applications.
- Ready-to-use aqueous coating formulations that save time and money.
- Fully compatible with existing standard protocols.
- Coats and adheres to a wide variety of surfaces including glass, plastic and biological surfaces.
- Promotes cell plating efficiency, improved cell morphology, and enhanced cell proliferation.
- Quality manufactured and performance tested in accordance with ISO/USP guidelines.

MAPTrix™ ECM Product Overview

ECM Component	MAPTrix™ ECM Mimetic	Origin of Peptide Motif	Typical Peptide Motif
Cadherin	MAPTrix™ E	E-cadherin N-cadherin	LFHAVSSNG, ADTPPV LRAHAVDING
Collagen	MAPTrix™ C	Type I Type IV	GLPGER, GFPGER, GEFYFDLRLKGDK
Fibronectin	MAPTrix™ F	Type II Type III Type V	KNNQKSEPLIGRKKT GRGDSP WQPPRARI
Laminin	MAPTrix™ L	α1 chain α5 chain β1 chain γ1 chain	IKVAV GIFFL RYVVLPR RNIAEIIKDI
Nidogen (Entactin)	MAPTrix™ N	Nidogen I (Entactin I) Nidogen II (Entactin II)	LNRQELFPFG SIGFRGDGQTC
Vitronectin	MAPTrix™ V	HPV (human precursor vitronectin)	KKQRFHRNRKGYRSQ FRHRNRKGY
Miscellaneous	MAPTrix™ Y, MAPTrix™ Z, MAPTrix™ H	Tenascin-C Syndecan Heparin binding	HHLGGAKQAGDV LGKKPIYKK FHRRIKA

- For more info, visit Kollodis BioSciences, Inc. at www.kollodis.com

Kollodis' MAPTrix™ products are for research use only & are not intended for diagnostic or clinical use

