

MAPTrix™, The Smart Biomaterials For Life Sciences

MAPTrix™ Fibronectin Mimetic Substrate Array

Product Overview

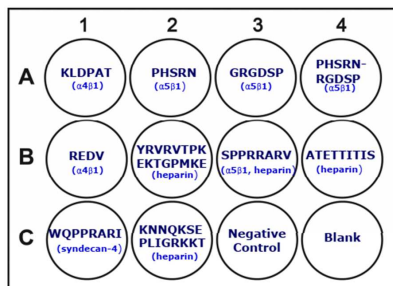
Cell adhesion plays a critical role in stem cell growth by anchoring stem cells within their specialized microenvironment, known as the stem cell niche. Stem cell adhesion molecules such as integrins and cadherins bind to the extracellular matrix (ECM) and other cells within the niche, allowing stem cells to stay positioned and receive necessary signals for self-renewal.

Fibronectin is an extracellular matrix protein that is found abundantly in blood and connective tissues. Fibronectin can be used for coating tissue culture surfaces or as a medium additive to promote stem cell adhesion and proliferation.

Description

The basic layout of the MAPTrix™ Fibronectin Mimetic Array is comprised of substrates having 10 different fibronectin derived peptide motifs that bind to $\alpha\beta1$ and $\alpha5\beta1$ (fibronectin), and/or heparin/syndecan. We also provide tailored array surfaces for specific customer applications. Feel free to contact us if you require a specialized array comprised of integrin binding surfaces.

Figure 1: Layout of MAPTrix™ Fibronectin Array (12 well plate)



Screening to identify optimal fibronectin mimetic substrate for MSC culture

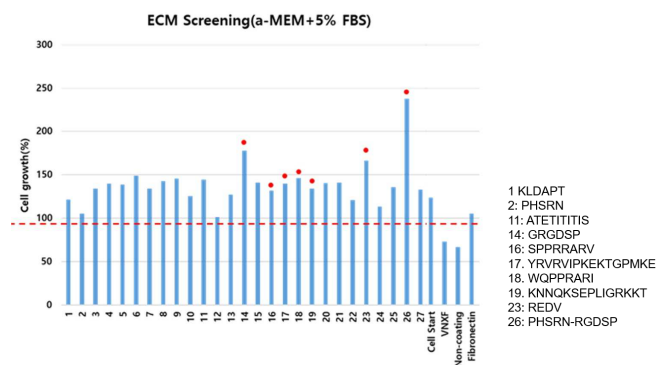


Table 1. Fibronectin derived Cell Binding Peptide Motif List

Currently, 27 peptide motifs derived from fibronectin are available for your custom array. Most of them were tested for cell adhesion and growth in serum-free conditions.

If you are interested in design your own array for special applications, we can offer the custom array in a month.

Custom Product Format:

- Well plate: 96 well, 48 well, 24 well, and 12 well
- Culture Vessel: Petri dish, T flask

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**MAPTrix HyGel™, Solution for 3D ECM
Microenvironment**

Cat. No	Domain	Sequence	Receptor
161011	III-1	KYILRWRPKNS	Heparin
161021	III-5	WTPPRAQITGYRLTVGLTRR	$\alpha 5\beta 1$
161031	III-5	KLDAPT	$\alpha 4\beta 1$, $\alpha 4\beta 7$
161041	III-9	PHSRN	$\alpha 5\beta 1$
161051	III-10	RGD	$\alpha 5\beta 1$, $\alpha v\beta 3$
161061	III-10	RGDS	$\alpha 11\beta 3$
161071	III-10	GRGDSP	$\alpha 5\beta 1$
161081	EDA	EDGIHEL	$\alpha 4\beta 1$, $\alpha 9\beta 1$
161091	III-13 (FN-C/H-III)	YRVRVTPKEKTGPMKE	Heparin
161101	III-13 (FN-C/H-IV)	SPPRRARVT	$\alpha 5\beta 1$, Heparin
161111	III-13	ATETTITIS	Heparin
161121	III-13	VSPRRARVTDATETTITISWRKTETITGFG	$\alpha 5\beta 1$, Heparin
161131	III-13	KPDVRSYTITG	$\alpha 4\beta 1$, Heparin
161141	III-13	ANGQTPIQRYIK	$\alpha 4\beta 1$, Heparin
161151	III-14	PRARITGYIIKYEKPGSPPREVVPRPRPGV	
161161	III-14 (FN-C/H-V)	WQPPRARI	SDC-4
161171	III-14 (FN-C/H-V)	WQPPRARITGYIIKYEKPG	SDC-4
161181	III-14 (FN-C/H-I)	YEKPGSPPREVVPRPRPGV	Heparin
161191	III-14 (FN-C/H-II)	KNNQKSEPLIGRKKT	Heparin
161201	IIICS-1	EILDVPST	$\alpha 4\beta 1$
161211	IIICS-1	IDAPS	$\alpha 4\beta 1$
161221	IIICS-1	VVIDASTAIDAPSNL	$\alpha 4\beta 1$
161231	IIICS-1	LDVPS	$\alpha 4\beta 1$
161241	IIICS-5	REDV	$\alpha 4\beta 1$
161251	III-10	PHSRN-RGDSP	$\alpha 5\beta 1$
161252	IIICS-1	TAGPDQTEMTIEGLQ	Heparin, GF
161253	Hep binding domain	KDRKRSELRRIASQVK	Heparin, GF

Storage Conditions:

- The coated plate can be stored at room temperature for 2 years.

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