BD Biosciences provides a wide range of animal, human, and synthetic ECMs for researchers to support improved cell attachment, propagation, differentiation, and migration. BD’s extensive experience in protein purification along with rigorous quality assurance testing guarantees high-quality consistent products.

Features
- Provides a wide range of animal, human, and synthetic products to meet the needs of many cell culture systems
- Enables 3D cell culture with gels made from reconstituted basement membranes, purified proteins, or synthetic peptide hydrogel
- Supports in vivo studies, such as cell engraftment, with BD Matrigel® matrix and BD™ PuraMatrix™ peptide hydrogel
- Ensures high-quality products with extensive quality control testing
- Saves human embryonic stem cell researchers time when using BD Matrigel™ hESC-qualified matrix

Attachment and differentiation of normal and transformed cells
BD Matrigel matrix, certified LDEV-free and the trusted leading basement membrane, provides a physiologically relevant environment for studies of cell morphology, biochemical function, cell migration or invasion, and gene expression. BD Matrigel matrix is effective for the attachment and differentiation of both normal and transformed anchorage dependent epithelial cells as well as other cell types including neurons, Sertoli cells, chick lens, vascular endothelial cells, and hepatocytes.

Variety of purified and synthetic proteins and attachment factors
For more defined culture systems, BD provides a wide range of purified proteins for cell attachment including collagen types I to VI, laminin, fibronectin, osteopontin, and vitronectin. For studies of human cells that require xeno-free culture conditions, BD offers human collagens, fibronectin, osteopontin, and vitronectin. For researchers who need animal-free culture systems, BD offers two synthetic products poly-d-lysine for 2D cell culture and BD PuraMatrix peptide hydrogel for 3D cell culture. Poly-D-Lysine promotes cell attachment and/or differentiation for a variety of cell types including transfected cell lines, neuronal cell lines, glial cells, and primary neurons.

Wide range of applications and cited references
BD ECMs are used for a range of applications and cell types including in vitro and in vivo angiogenesis, cell migration and invasion, three-dimensional cell culture, neuronal cell culture, primary hepatocyte culture, culturing human embryonic stem (hES), and induced pluripotent stem (iPSC) cells. Be confident in your results with BD ECMs which have been cited in more than 5,400 scientific articles (see the following table for examples of these citations).
BD™ ECM Product Reference Guide

**Product**

**Chemical/Genetic**

**Invasion**

**3D Culture**

**Neural Cells**

**Hepatocytes**

**Endothelial Cells**

**Tumor Cells**

**Muscle Cells**

**Collagen**

**Osteopontin**

**Fibronectin**

**Supports**

**Surface receptor-independent cell attachment. It can simplify the manipulation of weakly adherent cells and tissue sections in immunofluorescence, in situ hybridization, and immunohistochemistry assays.**

**References**


**References**


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BD ECM Product Reference Guide

Product

Chemoattractant/Chemokine

Endothelial Cells

Tumor Cells

Muscle Cells

Epithelial Cells

Product

Invasion

Neuronal Cells

Hepatocytes

Endothelial Cells

Tumor Cells

Muscle Cells

Epithelial Cells

Osteoclasts

Non-specific Cell

Attachment

In Vitro Cell Adhesion

BD Cell-Tak™ cell and tissue adhesive

BD Matrigel™ matrix

BD PuraMatrix™ peptide hydrogel


References


Osteopontin is used to enhance attachment of tumour cells and osteocytes. It is also a chemotactic factor for macrophages, smooth muscle cells, endothelial cells, and glial cells.

3D cell culture systems provide more in vivo-like culture conditions. BD Matrigel™, BD collagen, BD laminin/entactin high concentration, and BD PuraMatrix peptide hydrogel have been developed to meet the wide range of 3D culture media, from reconstituted basement membrane to synthetic, defined surfaces.
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