

Cell Model Systems

Monitoring Angiogenesis, Cell Migration & Invasion

→ Assays for Fluorometers/Fluorescence Multiwell Plate Readers and Fluorescence/Light Microscopy

Angiogenesis Assay Kit

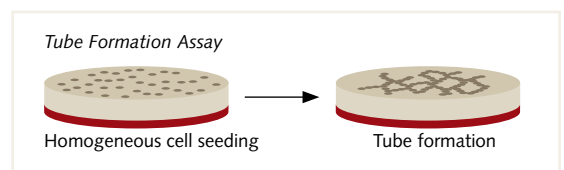
PromoKine's Angiogenesis Assay Kit provides a simple, robust and semi-quantitative method ("tube formation assay") to determine angiogenesis *in vitro* in less than 18 hours. This assay is easy to perform and measures the ability of cells to form three-dimensional tube-like structures. After staining the tubes with the provided fluorescence dye, the extent of tube formation, such as average tube length and branch point, can be quantified using an imaging software.

The kit can be used for screening of angiogenesis inhibitors and stimulators as well as studying of angiogenesis-related signal transduction.

Instrumentation: The three-dimensional tube formation can be examined using **light and/or fluorescence microscopy** (Ex/Em = 495/516 nm).

Kit components: Wash Buffer, Staining Dye Concentrate, Extracellular Matrix Solution (BME; endotoxin-free and growth factor-reduced) as well as an Inhibitor Control (Vinblastine).

More Info: www.promokine.info/angiogenesis-assay-kit



Catalog Number	Product Name	Size
PK-CA577-K905	Angiogenesis Assay Kit	50 assays

Cell Migration/Chemotaxis and Cell Invasion Assay Kits

PromoKine's **Cell Migration Assay Kits** utilize a Boyden chamber, where the cells migrate through a semi-permeable membrane (*available with three different pore sizes*) in response to stimulatory or inhibitory compounds.

The **Cell Invasion Assay Kits** also utilize a Boyden chamber (with an 8 µm pore size semi-permeable membrane) which is in addition coated with either *Basement Membrane Extract* (BME; endotoxin-free and growth factor-reduced), *laminin*, *Collagen I* or *Collagen IV*. The cells first invade/degrade the matrix and then migrate through the semi-permeable membrane in response to different stimuli.

The Cell Migration and Invasion Assay Kits provide a sensitive, homogeneous assay format which is convenient, simple, fast (1-2 hours) and suitable for high-throughput screening. They can be used for measuring cell migration/invasion in response to a variety of biochemical stimuli as well as for screening, studying, or characterizing compounds that influence cell migration/chemotaxis and cell invasion.

Instrumentation: Cell migration and invasion can be analyzed directly using a **fluorometer** or a **fluorescence microtiter plate reader** with common filter sets (fluorometric detection at Ex/Em= 530/590 nm).

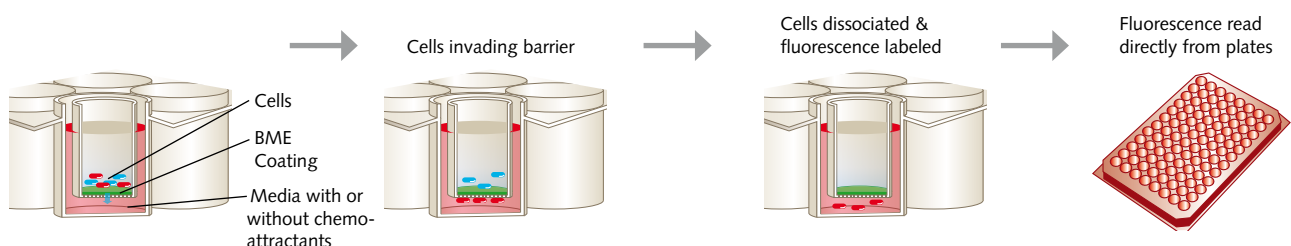
Kit components:

- The *Cell Migration Kits* include a Cell Migration Chamber, a Control Migration Inducer, Cell Dissociation Solution, and a Cell Migration Dye.
- The *Cell Invasion Kits* include a Cell Invasion Chamber, a Control Invasion Inducer, a Cell Invasion Dye, Cell Dissociation Solution, Wash Buffer and either Basement Membrane Solution (BME; endotoxin-free and growth factor-reduced), laminin, Collagen I or Collagen IV.

More Info: www.promokine.info/cell-migration-assay-kits and www.promokine.info/cell-invasion-assay-kits

PromoKine also offers a wide range of cytokines/chemokines and growth factors as well as individual cell staining reagents.

More Info: www.cytokines.info and www.promokine.info/cell-staining-reagents



Cell invasion assay protocol using a BME-coated Boyden Chamber.

Cell Migration/Chemotaxis Assay Kits (Ex/Em= 530/590 nm)

Coating	Plate Format	Number of Assays	Pore Size (µm)	Catalog Number
No Coating	24-well	12	8	PK-CA577-K909
	96-well	100		PK-CA577-K906
	24-well	12	5	PK-CA577-K910
	96-well	100		PK-CA577-K907
	24-well	12	3	PK-CA577-K911
	96-well	100		PK-CA577-K908

Cell Invasion Assay Kits (Ex/Em= 530/590 nm)

Coating	Plate Format	Number of Assays	Pore Size (µm)	Catalog Number
BME	24-well	24	8	PK-CA577-K913
	96-well	100		PK-CA577-K912
Collagen I	24-well	24	8	PK-CA577-K917
	96-well	100		PK-CA577-K916
Collagen IV	24-well	24	8	PK-CA577-K919
	96-well	100		PK-CA577-K918
Laminin	24-well	24	8	PK-CA577-K915
	96-well	100		PK-CA577-K914

Cell Type	Cell Migration/Chemotaxis			Cell Invasion
	3 µm	5 µm	8 µm	8 µm
Invasive and Non-invasive breast cancer cell lines (human): e.g. MDA-MB-231, MCF7	-	+	+	+
Invasive fibrosarcoma cell line (human): e.g. HT1080	-	+	+	+
Non-Invasive fibroblast cell line (mouse): e.g. NIH3T3	-	+	+	+
Endothelial cells: e.g. HUVECs	+	+	+	+
Endothelial Cells: e.g. HDMECs/HMVECs, HMECs	-	+	+	+
Myofibroblasts: e.g. Hepatic Stellates	-	+	-	N/A
Leukocytes, Neutrophils	+	-	-	-
Lymphocytes, Macrophages, Monocytes	-	+	-	-
Epithelial cells, fibroblasts	-	-	+	-

For more Cell Analysis Products such as Cell Viability & Cytotoxicity Kits, Apoptosis Assay Kits or individual cell stains please see: www.promokine.info/cell-analysis and www.promokine.info/apoptosis

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