

Certificate of Analysis

Corning® BioCoat™ Tumor Invasion System

The Corning BioCoat Tumor Invasion System provides cells with conditions that allow assessment of their invasive potential *in vitro*. It consists of a Corning FluoroBlok™ 24-Multiwell Insert Plate with an 8.0 micron pore size PET membrane that has been uniformly coated with Corning Matrigel® Matrix. This uniform layer of Corning Matrigel Matrix serves as a reconstituted basement membrane *in vitro* providing a true barrier to non-invasive cells while presenting an appropriate protein structure to study invasion. The coating process occludes the pores of the membrane, blocking non-invasive cells from migrating through the membrane. In contrast, invasive cells (malignant and non-malignant cells) are able to detach themselves from and migrate through the coated membrane.

Quantitation of cell invasion is achieved by either pre- or post-cell invasion labeling with a fluorescent dye such as DiIC₁₂(3) or calcein AM, respectively, and measuring the fluorescence of invading cells. Since the Corning FluoroBlok membrane effectively blocks the passage of light from 490-700 nm at >99% efficiency, fluorescently-labeled cells that have not invaded are not detected by a bottom-reading fluorescence plate reader. However, cells that have invaded to the underside of the membrane are no longer shielded from the light source and are detected with the respective plate reader.

Applications

Useful to study cell invasion of malignant and normal cells. Specific applications may include assessment of the metastatic potential of tumor cells, inhibition of metastasis by ECM components or antineoplastic drugs, altered expression of cell surface proteins or metastatic cells, and invasion of normal cells, such as fibroblasts.

CATALOG NUMBER:	354165	LOT NUMBER: 0258002
SIZE FORMAT:	24-Multiwell Insert Plate	
INSERT AND PLASTICWARE:	Corning FluoroBlok 24-Multiwell Insert Plate in a Falcon® 24-well plate and lid.	
EXTRACELLULAR MATRIX:	Matrigel Matrix is a solubilized basement membrane preparation extracted from Engelbreth-Holm-Swarm (EHS) mouse sarcoma. It contains laminin, collagen type IV, heparan sulfate proteoglycan, entactin and growth factors, including TGF beta, basic FGF and occur naturally in the EHS tumor.	
QUANTITY:	One Corning FluoroBlok 24-Multiwell Insert Plate coated with Matrigel Basement Membrane Matrix.	
MEMBRANE TYPE:	Corning FluoroBlok track etched polyethylene terephthalate (PET).	
MEMBRANE PORE SIZE:	8.0 µm	
MEMBRANE SURFACE AREA:	0.3 cm ²	

Discovery Labware, Inc. , Two Oak Park, Bedford, MA 01730, Tel: 1.978.442.2200 (U.S.)
 CLSTechServ@Corning.com www.corning.com/lifesciences

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- USE:** Remove the package from **-20°C** storage and allow to come to room temperature.
- Add 500 microliters of warm (37°C) phosphate buffered saline to the interior of the insert. Allow to rehydrate for **2 hours** in humidified incubator, 37°C, ambient atmosphere. After rehydration, carefully remove the medium. The chamber is now ready for use.
- QUALITY CONTROL:** The Corning® BioCoat™ Tumor Invasion System is evaluated for invasivity using HT-1080 cells (an invasive human fibrosarcoma cell line) and NIH/3T3 cells (a mouse fibroblast cell line of low invasivity). Approximately 750 microliters of 5% Fetal Bovine Serum in medium is added to the plate well as a chemoattractant and 500 microliters of cell suspension at approximately **5 x 10⁴ cells/ml** is added to the chamber (**2.5 x 10⁴ cells/chamber**). Plates are incubated at 37°C for 20-22 hours. The medium within the inserts is removed and the 24-Multiwell insert plate is transferred to a 24-well plate containing 500 microliters of 4 µg/ml Corning Calcein AM Fluorescent Dye (Catalog No. 354216 or 354217) in Hanks Balanced Salt Solution. The plates are incubated at 37°C for 1 hour. The fluorescence of the invaded cells is read on a fluorescence plate reader (bottom-reading mode) at Ex/Em 494/517 nm.
- Tested and found negative for the presence of bacteria and fungi.
- STORAGE:** Stable when stored at -20°C. Avoid multiple freeze-thaws. Do not store in frost-free freezer. **KEEP FROZEN.**
- EXPIRATION DATE:** November 7, 2021
- SAFETY RECOMMENDATION:** Handle in accordance with good industrial hygiene and laboratory safety practices

California Proposition 65 Notice

WARNING: This product contains a chemical known to the state of California to cause cancer.

Component: **Chloroform**


Quality Assurance

September 30, 2020
Date