

Datasheet for ABIN2344825

CytoSelect™ 48-well Cell Adhesion Assay (ECM Array, Colorimetric)[Go to Product page](#)

1 Image

24 Publications

Overview

Quantity:	48 tests
Reactivity:	Mammalian
Application:	Cellular Assay (CA)

Product Details

Brand:	CytoSelect™
Sample Type:	Serum, Cell Samples
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Characteristics:	The CytoSelect™ Cell Adhesion Assay Kit provides a rapid, quantitative method for evaluating cell adhesion. The kit contains sufficient reagents for the evaluation of 48 samples (40 ECM protein-coated wells, 8 BSA-coated wells).
Components:	<ol style="list-style-type: none">1. ECM Adhesion Plate : One 48-well plate containing 40 ECM protein-coated wells and 8 BSA-coated wells (see layout below). FN, Collagen IV and Fibrinogen are from human, Laminin I is from Mouse and Collagen I is from Bovine.2. Cell Stain Solution : One Bottle - 10.0 mL3. Extraction Solution : One Bottle - 10.0 mL
Material not included:	<ol style="list-style-type: none">1. Cell culture medium2. Serum free medium, such as DMEM containing 0.5 % BSA, 2 mM CaCl₂ and 2 mM MgCl₂3. Cell culture incubator (37 °C, 5 % CO₂ atmosphere)4. 1X PBS containing 2 mM CaCl₂ and 2 mM MgCl₂5. Light microscope6. 96-well microtiter plate

Product Details

7. Microtiter plate reader

Target Details

Background: Cell adhesion is a complex process involved in embryogenesis, migration/invasion, tissue remodeling, and wound healing. To perform these processes, cells adhere to extracellular matrix components (via adhesion receptors), forming complexes with components of the cytoskeleton that ultimately affect cell motility, differentiation, proliferation, and survival.

Application Details

Application Notes: Optimal working dilution should be determined by the investigator.

Comment:

- Full quantitation of cell adhesion with no manual cell counting
- Plates precoated with a uniform substrate layer of a single ECM protein in each row: Collagen I, Collagen IV, Fibrinogen, Fibronectin, and Laminin

Plate: Pre-coated

Protocol: The CytoSelect™ Cell Adhesion Assay Kit utilizes an ECM protein-coated 48-well plate (see Adhesion Plate Layout below). First, cells are seeded onto the coated substrate, where the adherent cells are captured. Next, unbound cells are washed away, and the adherent cells are fixed/stained. Finally, the stain is extracted and quantified colorimetrically.

Assay Procedure:

1. Under sterile conditions, allow the ECM Adhesion Plate to warm up at room temperature for 10 minutes.
2. Prepare a cell suspension containing $0.1-1.0 \times 10^6$ cells/mL in serum free media. Agents that inhibit or stimulate cell adhesion can be added directly to the cell suspension.
3. Add 150 μ L of the cell suspension to the inside of each well (BSA-coated wells are provided as a negative control).
4. Incubate for 30-90 min in a cell culture incubator.
5. Carefully discard or aspirate the media from each well (Note: Do not allow wells to dry). Gently wash each well 4-5 times with 250 μ L PBS. 3
6. Aspirate the PBS from each well and add 200 μ L of Cell Stain Solution. Incubate for 10 minutes at room temperature.
7. Discard or aspirate the Cell Stain Solution from the wells. Gently wash each well 4-5 times with 500 μ L deionized water.
8. Discard the final wash and let the wells air dry.
9. Add 200 μ L of Extraction Solution per well, and then incubate 10 minutes on an orbital shaker.
10. Transfer 150 μ L from each extracted sample to a 96-well microtiter plate and measure the OD 560nm in a plate reader.

Application Details

Restrictions: For Research Use only

Handling

Storage: 4 °C

Storage Comment: Store all kit components at 4°C.

Publications

Product cited in: Guerra, Rose, Hematti, Kao: "Minocycline enhances the mesenchymal stromal/stem cell pro-healing phenotype in triple antimicrobial-loaded hydrogels." in: **Acta biomaterialia**, Vol. 51, pp. 184-196, (2017) ([PubMed](#)).

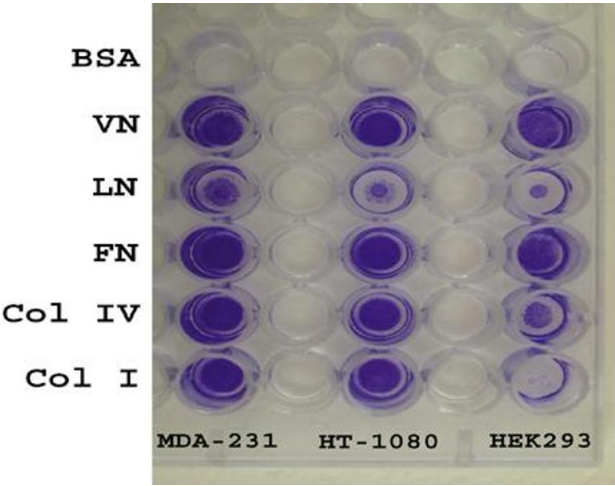
Bradbury, Turner, Mitchell, Griffin, Middlemiss, Lau, Dagg, Taran, Cooper-White, Fabry, O'Neill: "The focal adhesion targeting domain of p130Cas confers a mechanosensing function." in: **Journal of cell science**, Vol. 130, Issue 7, pp. 1263-1273, (2017) ([PubMed](#)).

Moore, England, Ehrlich, Rimm: "Calcium Sensor, NCS-1, Promotes Tumor Aggressiveness and Predicts Patient Survival." in: **Molecular cancer research : MCR**, (2017) ([PubMed](#)).

P?uciennik, Nowakowska, Ga?dyszy?ska, Pop?da, Bednarek: "The influence of the WWOX gene on the regulation of biological processes during endometrial carcinogenesis." in: **International journal of molecular medicine**, (2016) ([PubMed](#)).

Sato, Kubo, Morimoto, Yanagihara, Seyama: "High mannose-binding Pseudomonas fluorescens lectin (PFL) downregulates cell surface integrin/EGFR and induces autophagy in gastric cancer cells." in: **BMC cancer**, Vol. 16, Issue 1, pp. 63, (2016) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)



Cellular Assay

Image 1. CytoSelect™ 48-Well Cell Adhesion Assay, ECM Array. Serum starved cells from three different cell lines were allowed to attach to the ECM-coated 48-well plate for 1 hr at 100,000 cells/well. Adherent cells were stained according to the assay protocol. BSA = Bovine Serum Albumin. VN = Vitronectin. LN = Laminin. FN = Fibronectin. Col = Collagen.