Datasheet for ABIN2344827

CytoSelect™ 48-well Cell Adhesion Assay (ECM Array, Fluorometric)

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Overview

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

Product Details

Brand:	CytoSelect™
Sample Type:	Serum, Cell Samples
Analytical Method:	Quantitative
Detection Method:	Fluorometric
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:	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. 4X Lysis Buffer : One Bottle - 10.0 mL 3. CyQuant® GR Dye : One tube - 50 µL 2
Material not included:	1. Cell culture medium 2. Serum free medium, such as DMEM containing 0.5 % BSA, 2 mM CaCl2 and 2 mM MgCl2 3. Cell culture incubator (37 °C, 5 % CO2 atmosphere) 4. 1X PBS containing 2 mM CaCl2 and 2 mM MgCl2 5. Light microscope 6. 96-well plate suitable for a fluorescence plate reader

Product Details

	7. Fluorescence 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). First, cells are seeded onto the coated substrate, where the adherent cells are captured. Next, unbound cells are removed with consecutive washes. Finally, the adherent cells are lysed and subsequently detected with CyQuant® GR Dye.
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 x 106 cells/mL in serum free media. Agents that inhibit or stimulate cell adhesion can be added directly to the cell suspension. 3 3. Add 150 µL 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 µL PBS. 6. Prepare sufficient 1X Lysis Buffer/CyQuant® GR dye solution for all samples by diluting the dye 1:300 in Lysis Buffer (for example, add 4 µL dye to 300 µL of 4X Lysis Buffer and 900 µL of dH2O). 7. Add 200 µL of 1X Lysis Buffer/CyQuant® GR dye solution to each well containing cells. Incubate 20 minutes at room temperature with shaking. 8. Transfer 150 µL of the mixture to a 96-well plate suitable for fluorescence measurement. Read fluorescence with a fluorescence plate reader at 480 nm/520 nm.
Restrictions:	For Research Use only

Handling

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

Publications

Product cited in:

Pengjam, Madhyastha, Madhyastha, Yamaguchi, Nakajima, Maruyama: "Anthraquinone Glycoside Aloin Induces Osteogenic Initiation of MC3T3-E1 Cells: Involvement of MAPK Mediated Wnt and Bmp Signaling." in: **Biomolecules & therapeutics**, Vol. 24, Issue 2, pp. 123-31 , (2016) (PubMed).

Choi, Lee, Yang, Oh, Won, Han, Jeong, Kim, Kim, Kim, Cho: "Efficient mRNA delivery with graphene oxide-polyethylenimine for generation of footprint-free human induced pluripotent stem cells." in: **Journal of controlled release : official journal of the Controlled Release Society**, Vol. 235, pp. 222-35, (2016) (PubMed).

Lee, Chae, Park, Kim: "Porcine placenta hydrolysates enhance osteoblast differentiation through their antioxidant activity and effects on ER stress." in: **BMC complementary and alternative medicine**, Vol. 16, Issue 1, pp. 291, (2016) (PubMed).

Jin, St Hilaire, Huang, Yang, Dmitrieva, Negro, Schwartzbeck, Liu, Yu, Walts, Davaine, Lee, Donahue, Hsu, Chen, Cheng, Gahl, Chen, Boehm: "Increased activity of TNAP compensates for reduced adenosine production and promotes ectopic calcification in the genetic disease ACDC. " in: **Science signaling**, Vol. 9, Issue 458, pp. ra121, (2016) (PubMed).

Pan, Yue, Zhang, Hakim, Kodippili, McDonald, Duan: "AAV-8 is more efficient than AAV-9 in transducing neonatal dog heart." in: **Human gene therapy methods**, Vol. 26, Issue 2, pp. 54-61, (2015) (PubMed).