Datasheet for ABIN2344815

CytoSelect™ 48-well Cell Adhesion Assay (Fibronectin, Colorimetric)

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Overview

Quantity:	48 tests
Reactivity:	Human
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 Human Fibronectin-coated wells, 8 BSA- coated wells).
Components:	1. Fibronectin Adhesion Plate : One 48-well plate containing 40 Human Fibronectin-coated wells and 8 BSA-coated wells (see layout below) 2. Cell Stain Solution : One Bottle - 10.0 mL 3. Extraction Solution : One Bottle - 10.0 mL 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 microtiter plate 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 uniform substrate layer of Fibronectin
Plate:	Pre-coated
Protocol:	The CytoSelect™ Cell Adhesion Assay Kit utilizes a Fibronectin-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 Fibronectin 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. Add 150 µL of the cell suspension to the inside of each well (BSA-coated wells are provided as a negative control). 3 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. Aspirate the PBS from each well and add 200 µL 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 µL deionized water. 8. Discard the final wash and let the wells air dry. 9. Add 200 µL of Extraction Solution per well, and then incubate 10 minutes on an orbital shaker. 10. Transfer 150 µL from each extracted sample to a 96-well microtiter plate and measure the OD 560nm in a plate reader.
Restrictions:	For Research Use only

Handling

Storage:	4 °C

Handling

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

Publications

Product cited in:

Ma, Luo, Zhang: "SDF-1/CXCR7 axis regulates the proliferation, invasion, adhesion, and angiogenesis of gastric cancer cells." in: **World journal of surgical oncology**, Vol. 14, Issue 1, pp. 256, (2016) (PubMed).

Jiang, Chen, Yang, Wang, Wang, Li, Wen, Chang, Chen, Tang, Liu, Huang, Xu, Wang: "CYP3A5 Functions as a Tumor Suppressor in Hepatocellular Carcinoma by Regulating mTORC2/Akt Signaling." in: **Cancer research**, Vol. 75, Issue 7, pp. 1470-81, (2015) (PubMed).

Chen, Xu, Liu, Liu, Luo, Chen, Barzegar, Chung, Huang: "Both mTORC1 and mTORC2 are involved in the regulation of cell adhesion." in: **Oncotarget**, Vol. 6, Issue 9, pp. 7136-50, (2015) (PubMed).

Cervera, Apostolova, Crespo, Mata, McCreath: "Cells silenced for SDHB expression display characteristic features of the tumor phenotype." in: **Cancer research**, Vol. 68, Issue 11, pp. 4058-67, (2008) (PubMed).