

CytoSelect 24-well Wound Healing Assay Kit

CytoSelect 24-well Wound Healing Assay

CATALOG #
AAA11414

PRODUCT SYNONYMS

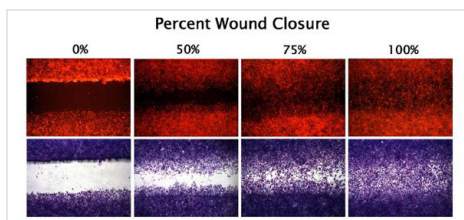
CytoSelect 24-well Wound Healing Assay; CytoSelect 24-well Wound Healing Assay assay kit

PRODUCT SPECIFICATIONS

Preparation and Storage

Upon receipt, transfer the DAPI Fluorescence Stain to -20 degree C. Store all other components at 4 degree C.

IMAGES



Application Data

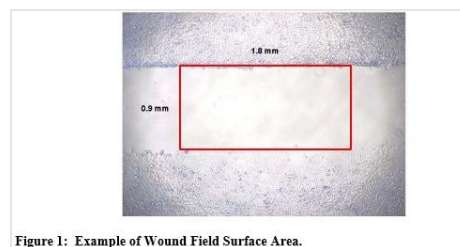
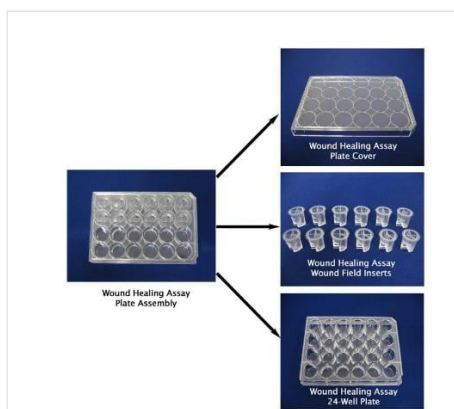
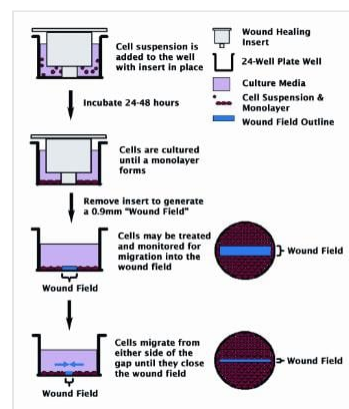


Figure 1: Example of Wound Field Surface Area.

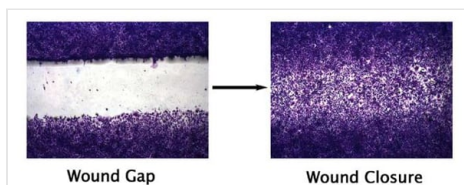
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ADDITIONAL INFORMATION

Related Product Information for CytoSelect 24-well Wound Healing Assay assay kit	Background: Wounded tissue initiates a complex and structured series of events in order to repair the damaged region. These events may include increased vascularization by angiogenic factors, an increase in cell proliferation and extracellular matrix deposition, and infiltration by inflammatory immune cells as part of the process to destroy necrotic tissue. The wound healing process begins as cells polarize toward the wound, initiate protrusion, migrate, and close the wound area. These processes reflect the behavior of individual cells as well as the entire tissue complex. Wound healing assays have been employed by researchers for years to study cell polarization, tissue matrix remodeling, or estimate cell proliferation and migration rates of different cells and culture conditions. Wound healing assays have been used to study cell polarity and actin cytoskeletal structure regulation through the role of Rho family GTPases, microtubule and Golgi apparatus orientation, the role of p53 in cell migration, as well as other physiological processes. These assays typically involve culturing a confluent cell monolayer and then displacing or destroying a group of cells by scratching a line through the monolayer. The open gap created by this "wound" is then inspected microscopically over time as the cells move in and fill the damaged area. This "healing" effect can take several hours to several days depending on the cell type, conditions, and the surface area of the "wounded" region. The disadvantage of these "scratch wound" assays is the lack of a defined wound surface area, or gap between cells. These wounds are varying sizes and widths, which inhibits consistent results and creates variation from well to well. In addition, the "scratch wound" assay often causes damage to the cells at the edge of the wound, which can prevent cell migration into the wound site and healing. Our CytoSelect™ Wound Healing Assay Kit overcomes this inconsistency by providing proprietary treated inserts that can generate a defined wound field or gap. Cells are cultured until they form a monolayer around the insert. The insert is removed, leaving a precise 0.9 mm open "wound field" between the cells. Cells can be treated and monitored at this point for migration and proliferation into the wound field. Progression of these events can be measured by imaging samples fixed at specific time points or time-lapse microscopy. CytoSelect™ Wound Healing Assay Kit includes proprietary "wound field" inserts to assay the migratory and wound healing characteristics of cells. This Trial Size kit contains sufficient reagents for the evaluation of 6 samples. The insert is optimal for use with most cell types and experimental conditions. The 0.9 mm wound field generated is compatible for use with most microscopes and imaging systems. Principle of the Assay: This Trial Size CytoSelect™ 24-well Wound Healing Assay Kit contains a 24-well plate containing 6 proprietary treated plastic inserts. The inserts create a wound field with a defined gap of 0.9mm for measuring the migratory and proliferation rates of cells. Migratory cells are able to extend protrusions and ultimately invade and close the wound field. Cell proliferation and migration rates can be determined using manual fixing and microscopic imaging. A fixing solution is provided for stopping cells at specific time points. Cell stain and DAPI stain are also provided for viewing results with light and fluorescence microscopy.
Product Categories/Family for CytoSelect 24-well Wound Healing Assay assay kit	Cell Based Assays ; Cell Migration ; Invasion and Wound Healing ; Gap Closure Assays ; Wound Healing Assays

References

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For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/assay-kits/cytoselect-24-well-wound-healing-assay/11414>