

CytoSelect 24-well Anoikis Assay Assay Kit

CytoSelect 24-well Anoikis Assay (Colorimetric/Fluorometric)

CATALOG #
AAA44538

PRODUCT SYNONYMS

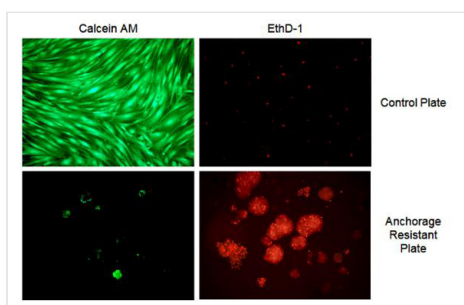
CytoSelect 24-well Anoikis Assay; CytoSelect 24-well Anoikis Assay (Colorimetric/Fluorometric); CytoSelect 24-well Anoikis Assay assay kit

PRODUCT SPECIFICATIONS

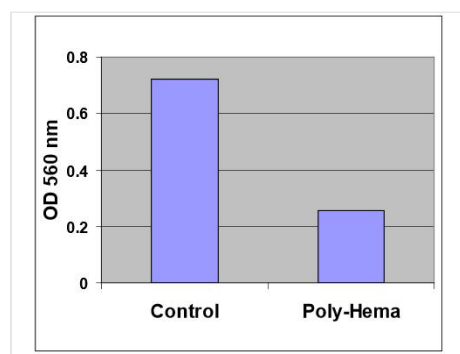
Preparation and Storage

Store the Calcein AM and Ethidium Homodimer at -20 degree C. Store all other components at 4 degree C until their expiration dates.

IMAGES



Application Data



Application Data

ADDITIONAL INFORMATION

Related Product Information for CytoSelect 24-well Anoikis Assay assay kit

Principle of the Assay: Cells are cultured in poly-Hema coated plate or control plate. Cell viability is determined by MTT or Calcein AM. Anoikis propelled cell death is measured by Ethidium Homodimer (EthD-1). EthD-1 is an excellent marker for measuring dead cells. EthD-1 is a red fluorescent dye that can only penetrate damaged cell membranes. EthD-1 will fluoresce with a 40-fold enhancement upon binding ssDNA, dsDNA, RNA, oligonucleotides, and triplex DNA. Background fluorescence levels are very low because the dyes are virtually non-fluorescent before interacting with cells.

Background/Introduction: Adhesion to the extracellular matrix (ECM) is essential for survival and propagation of many adherent cells. Apoptosis that results from the loss of cell adhesion to the ECM, or inappropriate adhesion is defined as "anoikis". Anoikis, from the Greek word for homelessness, is involved in the physiological processes of tissue renewal and cell homeostasis. A common feature of carcinoma development and growth is the ability of transformed cells to survive under "anchorage independent" or "spheroid" growth conditions. This resistance to anoikis has been shown to be involved in the loss of cell homeostasis, cancer growth, and metastasis. The inhibition of cell adhesion, spreading, and growth on the ECM is an impediment to the cellular healing process, thus making it a possible therapeutic target. Preventing anoikis and enhancing cell adhesion and spreading is a major goal in the development of cell transplantation techniques, including the therapeutic use of progenitor cells. Further studies aimed at controlling the molecular mechanisms of anoikis resistance will serve to define effective therapies for the treatment of many human malignancies. The CytoSelect™ 24-well Anoikis Assay Kit provides a colorimetric and fluorometric format to measure anchorage-independent growth and monitoring anoikis propelled cell death. The kit contains sufficient reagents for the assay of 24 samples in a Poly-Hema coated 24-well plate. Live cells are detected with MTT or Calcein AM. Cell death is detected with the Ethidium Homodimer (EthD-1).

Product Categories/Family for CytoSelect 24-well Anoikis Assay assay kit	Cell Based Assays; Cell Health Assays; Anoikis (Anchorage-Dependent Cell Death)
References	1. Bates RC, Buret A, van Helden DF, Horton MA, Burns GF. (1994) J Cell Biol 125, 403-415. 2. Frisch SM, Francis H. (1994) J Cell Biol 124, 619-626. 3. Frisch SM, Screaton RA. (2001) Curr Opin Cell Biol 13, 555-562. 4. Meredith JE, Jr Fazeli B, Schwartz MA. (1993) Mol Biol Cell 4, 953-961. 5. Rak J, Mitsuhashi Y, Erdos V, Huang SN, Filmus J, Kerbel RS. (1995) J Cell Biol 131, 1587-1598. 1. Lee, H.W. et al. (2013). Tpl2 kinase impacts tumor growth and metastasis of clear cell renal cell carcinoma. Mol Cancer Res. 11:1375-1386. 2. Sisto, M. et al. (2009). Fibulin-6 expression and anoikis in human salivary gland epithelial cells: implications in Sjogren's syndrome. Int. Immunol. 21:303-311. 3. Liu, H. et al. (2008). Cysteine-rich protein 61 and connective tissue growth factor induce de-adhesion and anoikis of retinal pericytes. Endocrinology 149:1666-1677.

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.

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Online datasheet: <https://stage.aaabiotech.com/assay-kits/cytoselect-24-well-anoikis-assay/44538>