

CytoSelect 24-well Cell Migration Assay (8 μ m), Colorimetric Assay Kit

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CATALOG #
AAA11404

PRODUCT SYNONYMS

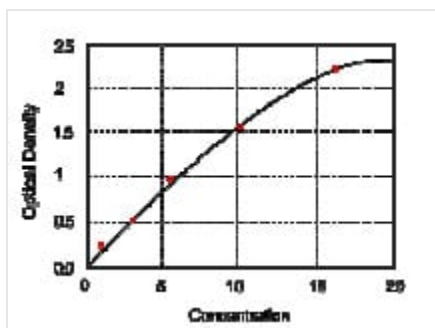
CytoSelect 24-well Cell Migration Assay (8 μ m); Colorimetric; Colorimetric assay kit

PRODUCT SPECIFICATIONS

Preparation and Storage

Store all components at 4 degree C until their expiration dates.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for CytoSelect 24-well Cell Migration Assay (8 μ m), Colorimetric assay kit

Principle of the Assay: The CytoSelect™ Cell Migration Assay Kit contains polycarbonate membrane inserts (8 μ m pore size) in a 24-well plate. The membrane serves as a barrier to discriminate migratory cells from non-migratory cells. Migratory cells are able to extend protrusions towards chemoattractants (via actin cytoskeleton reorganization) and ultimately pass through the pores of the polycarbonate membrane. Finally, the cells are removed from the top of the membrane and the migratory cells are stained and quantified.

Background/Introduction: Cell migration is a highly integrated, multistep process that orchestrates embryonic morphogenesis, tissue repair and regeneration. It plays a pivotal role in the disease progression of cancer, mental retardation, atherosclerosis, and arthritis. The initial response of a cell to a migration-promoting agent is to polarize and extend protrusions in the direction of the attractant; these protrusions can consist of large, broad lamellipodia or spike-like filopodia. In either case, these protrusions are driven by actin polymerization and can be stabilized by extracellular matrix (ECM) adhesion or cell-cell interactions (via transmembrane receptors). CytoSelect™ Cell Migration Assay Kit utilizes polycarbonate membrane inserts (8 μ m pore size) to assay the migratory properties of cells. The kit contains sufficient reagents for the evaluation of 12 samples. The 8 μ m pore size is optimal for epithelial and fibroblast cell migration. However, in the case of leukocyte chemotaxis, a smaller pore size (3 μ m) is recommended.

Product Categories/Family for CytoSelect 24-well Cell Migration Assay (8 μ m), Colorimetric assay kit

[Cell Based Assays](#); [Cell Migration](#); [Invasion and Wound Healing](#); [Boyden Chamber Assays](#); [Chemotaxis Assays](#)

References

1. Ridley AJ, Schwartz MA, Burridge K, Firtel RA, Ginsberg MH, Borisy G, Parsons JT, Horwitz AR. (2003) Science 302, 1704-9.
2. Horwitz R, Webb D. (2003) Curr Biol. 13, R756-9.
3. Lauffenburger DA, Horwitz AF. (1996) Cell 84, 359-369.
1. Kanan, Y. et al. (2014). Fibulin 2, a tyrosine O-sulfated protein, is up-regulated following retinal detachment. J Biol Chem. 289:13419-13433.
2. Al-Wadei, M.H. et al. (2013). Gamma-amino Butyric Acid (GABA) prevents the induction of nicotinic receptor-regulated signaling by chronic ethanol in pancreatic cancer cells and normal duct epithelia. Cancer Prevention Research. 6:139-148.
3. Al-Wadei, M.H. et al. (2012). Effects of chronic nicotine on the autocrine regulation of pancreatic cancer cells and pancreatic duct epithelial cells by stimulatory and inhibitory neurotransmitters. Carcinogenesis. 33:1745-1753.
4. Chen, Z. et al. (2012). The iron chelators Dp44mT and DFO inhibit TGF-beta-induced epithelial-mesenchymal transition via up-regulation of N-Myc downstream-regulated gene 1 (NDRG1). J.Biol.Chem. 287:17016-17028.
5. Isakova, I. et al. (2007). Age and dose-related effects on MSC engraftment levels and anatomical distribution in the CNS of non-human primates: Identification of novel MSC subpopulations that respond to guidance cues in brain. Stem Cells 25: 3261-3270.
6. Schuller, H. et al. (2007). GABA B receptor is a novel drug target for pancreatic cancer. Cancer 112(4):767-768.
7. Eckstein, N. et al. (2008). EGFR-pathway analysis identifies amphiregulin as a key factor for cisplatin resistance of human breast cancer cells. J. Biol. Chem. 283:739-750.
8. Liu, S. et al. (2008). Matrix metalloproteinase-activated anthrax lethal toxin demonstrates high potency in targeting tumor vasculature. J. Biol. Chem. 283:529-540.
9. Awasthi, N. et al. (2008). Downregulation of MMP-2 and -9 by proteasome inhibition: A possible mechanism to decrease LEC migration and prevent posterior capsular opacification. Invest. Ophthalmol. Vis. Sci. 49:1998-2003.
10. Ma, J. et al. (2008). Pancreatic duodenal homeobox-1(PDX-1) functions as a tumor suppressor in gastric cancer. Carcinogenesis 29:1327-1333.
11. Lukas, T.J. et al. (2008). Susceptibility to glaucoma: differential comparison of the astrocyte transcriptome from glaucomatous African American and Caucasian American donors. Genome Biology 9:R111.
12. Schuller, H. et al. (2008). Gamma-aminobutyric acid, a potential tumor suppressor for small airway-derived lung adenocarcinoma. Carcinogenesis 29:1979-1985.
13. Awasthi, N. et al. (2009). Endothelial monocyte activating polypeptide II interferes with VEGF-induced proangiogenic signaling. Laboratory Investigation 89(1):38-46.
14. Tabata, C. et al. (2009). All-trans-retinoic acid inhibits tumor growth of malignant pleural mesothelioma in mice. Eur. Respir. J. 34:1159-1167.
15. Igarashi, J. et al. (2009). Transforming growth factor-beta1 downregulates caveolin-1 expression and enhances sphingosine 1-phosphate signaling in cultured vascular endothelial cells. Am. J. Physiol. Cell Physiol. 297:C1263-C1274.
16. Tabata, C. et al. (2010). Novel clinical role of angiopoietin-1 in malignant pleural mesothelioma. Eur. Respir. J. 10.1183/09031936.00154009.

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://www.aaabiotech.com/assay-kits/cytoselect-24-well-cell-migration-assay-8-um-colorimetric/11404>