

CytoSelect LDH Cytotoxicity Assay Kit

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CATALOG #
AAA44572

PRODUCT SYNONYMS

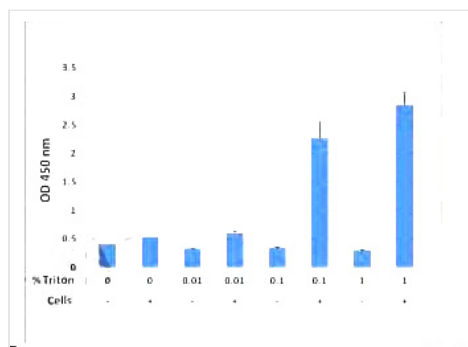
CytoSelect LDH Cytotoxicity; CytoSelect LDH Cytotoxicity Assay Kit; CytoSelect LDH Cytotoxicity assay kit

PRODUCT SPECIFICATIONS

Preparation and Storage

The LDH Cytotoxicity Assay Reagent is a clear, slightly red, ready-to-use solution. Aliquot as needed to avoid repeated freeze-thaw cycles and store at -20 degree C protected from light. If precipitates or turbidity are observed upon thawing, warm the solution to 37 degree C for 5-10 minutes and agitate to dissolve the precipitates. Store the Triton X-100 Solution at Room Temperature.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for CytoSelect LDH Cytotoxicity assay kit

Background: The measurement and monitoring of cell cytotoxicity is an essential technique in any laboratory focused on cell-based research. This skill allows for the optimization of cell culture conditions. More importantly, the cytotoxic nature of anticancer compounds in toxicology testing, the toxicity of therapeutic chemicals in drug screening, and cell-mediated cytotoxicity can all be assessed through this assay-based approach. Cell cytotoxicity characteristics include loss of cellular metabolic activity or cell membrane integrity. One method for measuring metabolic activity is to incubate the cells with a tetrazolium salt such as MTT, which is cleaved into a colored formazan product by metabolically active cells. Similarly, the green fluorescent dye Calcein AM can measure intracellular esterase activity in proliferating live cells, while dyes such as trypan blue or propidium iodide can enter and stain cells that have lost membrane integrity. CytoSelect™ LDH Cytotoxicity Assay Kit provides a colorimetric format for measuring and monitoring cell cytotoxicity. The kit contains sufficient reagents for the evaluation of 960 assays in 96-well plates. Cells can be plated and then treated with compounds or agents that affect cell viability. Upon cell death, lactate dehydrogenase (LDH), a soluble enzyme found in the cytoplasm, is released into the growth media. The growth media is then transferred to another plate and the released LDH is then detected with a cytotoxicity reagent. In the presence of lactate substrate (included in the LDH Cytotoxicity Reagent) LDH converts lactate to pyruvate and generates nicotinamide adenine dinucleotide (NADH). The WST-1 molecule, also present in the LDH Cytotoxicity Reagent, is converted from WST-1 to the orange formazan form. An increase in cell cytotoxicity is accompanied by increased LDH release and increased colorimetric signal. The assay principles are basic and can be applied to most eukaryotic cell lines, including adherent and non-adherent cells and certain tissues, depending on LDH expression levels. The LDH Cytotoxicity Reagent can be used to detect cytotoxicity in mammalian cells.

Product Categories/Family for CytoSelect LDH Cytotoxicity assay kit	Cell Based Assays; Cell Health Assays >Cytotoxicity Assays; LDH Cytotoxicity Assay
References	1. Jacobsen MD, Weil M, Raff MC. (1996) J Cell Biol 133, 1041. 2. Liu X, Cui X, Shan N, Li Y, Fang X, Ding M, Wang X. (2013) Cancer Cell Int. 13, 112 3. Yamaori S, Ishii H, Chiba K, Yamamoto I, Watanabe K (2013) Toxicology 314, 251 4. Wang Y, Qu L, Gong L, Sun L, Gong R, Si J (2013) Cancer Biother Radiopharm. 28, 623 5. Xue TY, He YZ, Zhang JJ, Zhang XY, Xin YJ, Lu Y, Li YH (2013) Clin Lab 59, 613 Chu, J. et al. (2015). Pharmacologic blockade of 12/15-lipoxygenase ameliorates memory deficits, abeta and Tau neuropathology in the triple-transgenic mice. Mol Psychiatry. doi: 10.1038/mp.2014.170.

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-ldh-cytotoxicity/44572>