

Alamar Blue Cell Viability Assay Kit

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CATALOG #
AAA269067

PRODUCT SYNONYMS

Alamar Blue Cell Viability; Alamar Blue Cell Viability Assay Kit; Alamar Blue Cell Viability assay kit

PRODUCT SPECIFICATIONS

Instructions for use	1. Add 1/10 th volume of Alamar Blue directly to cells in culture medium,such as Add 10ul Alamar Blue to 100ul of cell suspension. 2. Incubate for 2 to 6 hours at 37°C in a cell culture incubator, protected from direct light. The color of the medium changes from indigo blue to pink. Note: Sensitivity of detection increases with longer incubation times. For samples with fewer cells, use longer incubation times of up to 24 hours. 3. It is recommended to use a fluorescence microplate reader for detection, the excitation light wavelength is between 530-560 nm, the emission light wavelength is 580–610 nm (peak emission is 590 nm), and the relative fluorescence unit (RFU) is recorded. Draw a standard curve or cell growth curve: the ordinate (Y axis) is relative fluorescence unit (RFU); the abscissa (X axis) is the cell number or time point or drug concentration.
Notes	1. The appropriate density of cells can increase the detection sensitivity. For 96-well plates, we recommend seeding 100 ?L of cells per well, with cell concentrations ranging from 100-10,000/well for adherent cells and 2,000-50,000/well for suspension cells, with medium as blank control. For 384-well plates, both cell concentration and seeding size were halved. 2. The whole process should be aseptic, because microbial contaminants can also reduce the detection reagents and affect the experimental results. 3. Pay attention to the inoculated cell concentration and the incubation time after adding the detection reagent. Too high cell concentration or too long incubation time can lead to secondary reduction reactions, resulting in colorlessness and loss of fluorescence. 4. Avoid light when incubating. 5. This product can be detected by fluorescence or spectrophotometry, but the sensitivity of fluorescence is high and the experimental error is small. It is recommended to use fluorescence detection.
Preparation and Storage	Stored in the dark 4°C and valid for one year.

ADDITIONAL INFORMATION

Related Product Information for Alamar Blue Cell Viability assay kit	Background: Alamar Blue functions as a cell health indicator by using the reducing power of living cells to quantitatively measure the proliferation of various human and animal cell lines, bacteria, plant, and fungi allowing you to establish relative cytotoxicity of agents within various chemical classes. When cells are alive they maintain a reducing environment within the cytosol of the cell. Alamar Blue is a non-toxic, cell permeable compound that is blue in color and virtually non-fluorescent. Upon entering cells, Alamar Blue is reduced to red in color and highly fluorescent. During the process of cell proliferation, the ratios of NADPH/NADP, FADH/FAD, FMNH/FMN and NADH/NAD in the cells increased and were in a reducing environment. The dyes taken up into the cells are reduced by these metabolic intermediates and cytochromes and released outside the cells and dissolved in the medium, turning the medium from non-fluorescent indigo blue to fluorescent pink. Finally, use an ordinary spectrophotometer or a fluorescence photometer for detection, and the absorbance and fluorescence intensity are proportional to the number of viable cells. Alamar Blue Cell Viability Assay Kit is used to assess cell viability by simply adding ready-to-use solution to mammalian or bacterial cells in culture media. Alamar Blue Assay Reagent provides a simple, fast, reliable, and safe method for cell proliferation and cytotoxicity assays, suitable for high-throughput assays. The main component of the detection reagent is a redox indicator. It is violet-blue in the oxidized state and has no fluorescence, while in the reduced state, it transforms into a reduction product with pink or red fluorescence, with an absorption peak at 530-560 nm and an emission peak at 590 nm. There is no requirement to aspirate media from cells or place cells in minimal media. Consequently, Alamar Blue Cell Viability Assay Kit can easily be used in a single tube or microtiter plate format in a "no-wash" fashion. Simply add Alamar Blue as 10% of the sample volume (i.e., add 10 uL Alamar Blue to 100 uL sample), followed by a 1-4 hours incubation at 37 degree C. The resulting fluorescence is read on a plate reader or fluorescence spectrophotometer.
Product Categories/Family for Alamar Blue Cell Viability assay kit	Fluorescence Dye

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://www.aaabiotech.com/assay-kits/alar-mar-blue-cell-viability/269067>