V02

阿尔玛蓝试剂

货号：A7631
规格：1mL(100T)/5mL(500T)
保存：2-8℃，避光保存，有效期 1 年。

产品介绍：

阿尔玛蓝试剂为细胞增殖和细胞毒性检测提供了一种简便、快速、可靠、安全的方法，适用于高通量检测实验。该检测试剂的主要成分是一种氧化还原指示剂。其在氧化状态下呈现紫蓝色无荧光性，而在还原状态下，转变为呈粉红或红色荧光的还原产物，吸收峰为 530-560nm，而散射峰为 590nm。在细胞增殖过程中，细胞内 NADPH/NADP、 FADH/FAD、 FMNH/FMN 和 NADH/NAD 的比值升高, 处于还原环境。摄入细胞内的染料被这些代谢中间体及细胞色素类还原后释放到细胞外并溶于培养基中，使培养基从无荧光的靛青蓝变成有荧光的粉红色。最后用普通分光光度计或荧光光度计进行检测, 吸光度和荧光强度与活性细胞数成正比。

操作步骤：(*仅供参考*)

1. 在 100 微升细胞悬液中加入 10 微升的检测试剂，在细胞培养箱内孵育 2-6 小时，培养基的颜色由靛青蓝开始变成粉红色就可以进入下一步。
2. 推荐使用荧光酶标仪进行检测，激发光波长在 530-560 nm 之间，发射光波长为 590 nm，记录相对荧光单位(RFU)。
3. 绘制标准曲线或细胞生长曲线：纵座标(Y 轴)为相对荧光单位(RFU)；横坐标(X 轴)为细胞数或时间点或药物浓度。

注意事项：

1. 合适密度的细胞可以增加检测灵敏度。对于 96 孔板，我们建议每孔接种 100 微升细胞，细胞浓度范围为：贴壁细胞在 100-10,000/孔, 悬浮细胞在 2,000-50,000/孔， 并以培养基为空白对照。对于 384 孔板，细胞浓度和接种量均减半。
2. 整个过程均应为无菌操作，因为微生物污染物同样可以还原检测试剂而影响实验结果。
3. 注意接种细胞浓度和加入检测试剂后孵育时间。细胞浓度过高或孵育时间过长，会导致继发性氧化反应，荧光消失。孵育时，须避光。
4. 本产品可以使用荧光或分光光度检测，但荧光的灵敏度高，实验误差小，推荐使用荧光检测。

Alamar Blue Cell Viability Assay Reagent

Cat:A7631
Size:1mL(100T)/5mL(500T)
Storage:2-8 °C, avoid light, valid for 1 year.

Introduction

Alamar Blue Cell Viability Assay Reagent provides a simple, rapid, reliable and safe method for cell proliferation and cytotoxicity detection, which is suitable for high-throughput test.The main component of the reagent is a redox indicator. In the oxidation state, it is purple blue without fluorescence, but in the reduction state, it turns into a reduction product with pink or red fluorescence. The absorption peak is 530-560nm, while the scattering peak is 590nm.

In the process of cell proliferation, the ratio of NADPH / NADP, FADH / FAD, FMNH / FMN and NADH / NAD increase and the cell is in a reducing environment. The dyes absorbed in the cells were reduced by these metabolic intermediates and cytochromes, then released to the cells and dissolved in the culture medium, which changed the culture medium from non fluorescent indigo blue to fluorescent pink. Finally, it can be detected by ordinary spectrophotometer or fluorescence photometer. The absorbance and fluorescence intensity are in direct proportion to the number of active cells.

Protocol(*for reference only*)

1. Add 10 µl of detection reagent into 100 µl cell suspension, incubate in cell incubator for 2-6 h, and enter the next step if the color of culture medium change from indigo blue to pink.
2. It is recommended to use a fluorescent enzyme reader for detection. Make the excitation wavelength between 530-560 nm, the emission wavelength as 590 nm, and record the relative fluorescence unit (RFU).
3. Draw standard curve or cell growth curve: vertical coordinate (Y axis) is relative fluorescence unit (RFU); horizontal coordinate (X axis) is cell number or time point or drug concentration.

Note

1. Appropriate density of cells can increase the sensitivity of detection. For 96 well plate, we suggest to inoculate 100 µl cells per well which own the cell concentration range for adherent cells in 100-10000 / well, suspension cells in 2000-50000 / well, and the culture medium is blank control.
2. For 384 well plates, the cell concentration and inoculation amount are halved.
3. The whole process should be aseptic, because microbial pollutants can also reduce the detection reagent and affect the experimental results.

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