

CCK-8细胞活力检测试剂盒

CCK-8 Cell Counting Kit

Storage Condition : 2-8 °C

Long Term Storage : -20 °C

Shipping Condition : Ambient temperature

Cat.No. MG6432

Size : 500 / 1000 / 3000 / 10000 tests

Technical literature is available at: www.mesgenbio.com.

E-mail MesGen Technical Services if you have questions on use of this system: tech@mesgenbio.com

Product Description

Cell Counting Kit-8 (CCK-8) allows sensitive colorimetric assays for the determination of cell viability in cell proliferation and cytotoxicity assays. Highly water-soluble tetrazolium salt, WST-8, is reduced by dehydrogenase activities in cells to give a yellow-color formazan dye, which is soluble in the tissue culture media. The amount of the formazan dye, generated by the activities of dehydrogenases in cells, is directly proportional to the number of living cells. The detection sensitivity of CCK-8 is higher than the other tetrazolium salts such as MTT, XTT, MTS or WST-1.

Superiority

- One-step, ready-to-use solution with no radioisotopes
- High sensitivity that correlates with the [3H]-thymidine incorporation assay
- High-throughput screening without a solubilization step
- No toxicity to cell

Cell Proliferation and Cytotoxicity Assay

1. Dispense 100 µl of cell suspension (1000-10000 cells/well) in a 96-well plate. Pre-incubate the plate for 24 hours in a humidified incubator (e.g., at 37°C, 5% CO₂).
2. Add 10 µl of various concentrations of substances to be tested to the plate. (Depending on your experiment)
3. Incubate the plate for an appropriate length of time (e.g., 6, 12, 24, 48 or 72 hours) in the incubator.
4. Add 10 µl of CCK-8 solution to each well of the plate.

Notice: Be careful not to introduce bubbles to the wells, since they interfere with the O.D. reading.

5. Incubate the plate for 1 - 4 hours in the incubator.
6. Measure the absorbance at 450nm using a microplate reader.

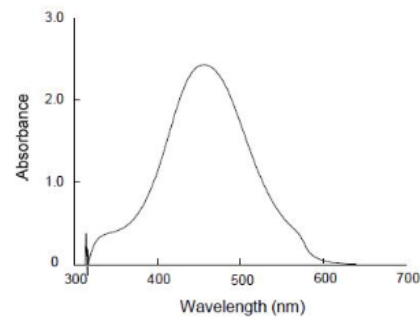
Notice: To measure the absorbance later, add 10 µl of 1% w/v SDS or 0.1 M HCl to each well, cover the plate and store it with protection from light at room temperature. No absorbance change should be observed for 24 hours.

7. Calculating the cell survival rate

$$\text{Survival rate (\%)} = \frac{A_{\text{sample}} - A_{\text{b}}}{A_{\text{c}} - A_{\text{b}}} \times 100$$

A_c : Negative control (including media and cells, no test substance)

A_b : Blank (including test substance and media, no cells)



Absorption property of WST-8

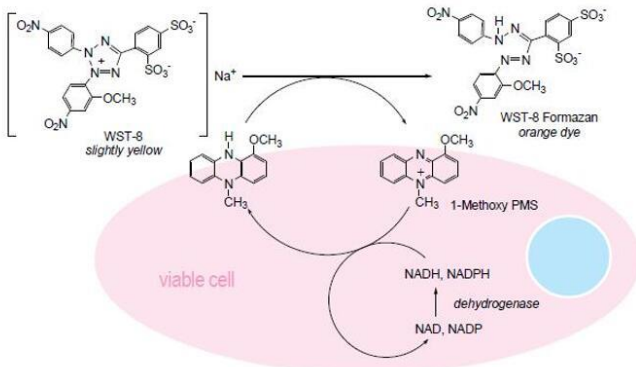
The microplate reader with a 450-490 nm filter is applicable for the measurement.

Stability

Kit is a ready-to-use solution. It is also stable at 4°C for 1 year. Your assay can be done anytime without thaw and freeze.

References

1. *Biomaterials*. (2016) 82: 48-59
2. *Polym.Chem.* (2017) 8: 472-484
3. *Nanoscale*. (2018)10:10277-10287



Cell viability detection mechanism with CCK-8

