XTT Cell Viability Assay

Catalog Number	Unit Size
TBS2021-500	500 Assay
TBS2021-1K	1000 Assay

DESCRIPTION

TribioScience's XTT Cell Viability Assay Kit is a colorimetric assay to quantify the viable cells with soluble formazan dye. The formation of orange formazan is based on the reduction of yellow tetrazolium salt (XTT) under the facilitation of electron acceptors or electron coupling reagents with mitochondrial oxidoreductases only existed in the living cells. The orange formazan dye is soluble in liquid solution, can be directly quantified by measuring the absorbance at 450 nm wavelength. The assay can be used for the measurement of cell proliferation in response to growth factors, cytokines, mitogens, and nutrients, etc. It can also be used for the analysis of cytotoxic compounds like anticancer drugs and many other toxic agents and pharmaceutical compounds.

FEATURES

- **Simplicity:** There is no requirement for additional reagents
- **Safety**: Non-radioactive assay
- **High-throughput**: No wash and cell transfer steps are involved during sample test procedures.
- **Accuracy**: Absorbance measurement is proportional to the number of cells in each well.

Kit Components and Storage for 100 tests

Name	500 tests	1000 tests
XTT Reagent	25 mL	2x 25mL
XTT Activator	0.5 mL	1.0mL

Storage: -20 °C
Shelf-life: 12 months

APPLICATIONS

- Cell proliferation
- Drug reagents test
- Growth factors
- Cytotoxicity
- Apoptosis

ASSAY PROCEDURES

1. Cells are cultivated in a 96-well plate. 100 µL of cells in growth medium is added to each well. Cell density for each well is between 1000 and 10,000 cells.
2. Include untreated cells as controls and a blank of culture media without cells together with tested samples.
   Warm the XTT Reagent and Activation Reagent in a 37 °C water bath. Gently shake until clear solution is obtained.
3. For one 96-well plate, working solution is prepared by mixing Activator to XTT solution at a ratio of 1:50. For example, 100 µL of Activator is added to 5 mL of XTT Reagent.
4. Add 50 µL of XTT working solution to each well, and incubate for 2-4 hours at 37°C. *Note: The incubation time can be optimized with the needs of experiments.*
5. Shake the plate on rocking platform to assure the dye is fully developed.
6. Measure the absorbance of the samples and a blank with a spectrophotometer plate reader at a wavelength between 450 nm.

RELATED PRODUCTS

Resazurin Cell Viability (TBS2001)
LDH Cytotoxicity Assay (TBS2002)
MTT Cell Viability Assay (TBS 2003)
MTS Cell Viability Assay (TBS2004)
Catalase Assay (TBS2006)
ATP Colorimetric/ Fluorometric Assay (TBS 2010)
ADP Colorimetric/Fluorometric Assay (TBS3020)
WST-8 or Cell Count Kit-8(CCK-8) (TBS2022)
Caspase-3 Colorimetric Assay (TBS2030)
BrdU Cell Proliferation Colorimetric Assay (TBS2086)
Cytochrome c Reductase Activity Assay (TBS2116)
AOPI Viability Assay for Flow Cytometry (TBS2069)

For research use only.

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