

IN CYTOTOX

XTT - CVDE



APPLICATIONS

Combined colorimetric assays for the quantification of the mitochondrial activity and for the quantification of nuclear DNA and cell number in response to pharmaceutical, chemical and environmental compounds, and nutrients.

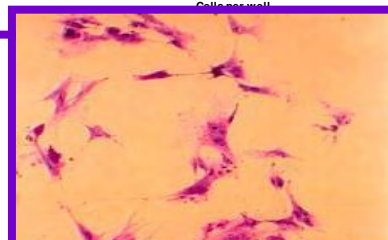
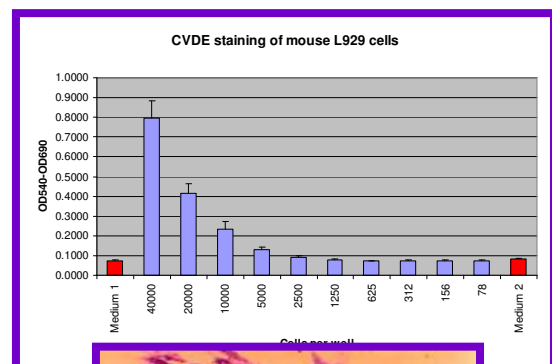
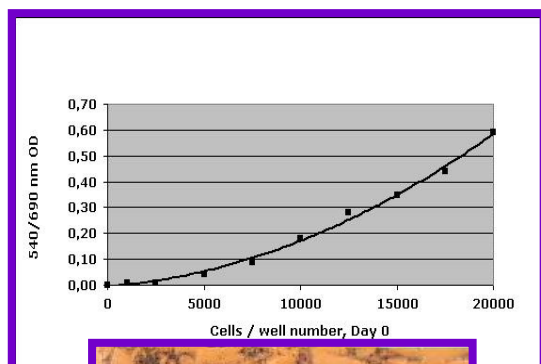
PRINCIPLE

This kit allows to measure sequentially two cytotoxicity parameters in one single cell culture: Mitochondrial activity (**XTT: Tetrazolium Hydroxide**) and nuclear DNA and cell number (**CVDE: Crystal Violet Dye Elution**).

XTT is reduced in the cells to formazan by mitochondrial succinate dehydrogenase. The reduction rate is measured and correlates with mitochondrial activity. Crystal Violet is a dye that accumulates in the cell nucleus. The fixed dye, measured photometrically after solubilization, correlates with the nuclear DNA content and thus with cell number.

BIOLOGICAL PARAMETERS EVALUATION

- IC₅₀ (Inhibitory Concentration 50%)
- Metabolic cytotoxicity
- Respiratory chain activity
- Cell proliferation
- Nuclear DNA



TECHNICAL SPECIFICATIONS

- Absorbance:**
- XTT: 480 (optimum) or 450 nm
 - CVDE: 540 nm
- Approximate assay time (total):**
- 4 hr + plate drying time
- Available kit configurations:**
- Reagents only
 - Reagents and 96-well microplates, sterile reagent reservoirs
- XTT - CVDE Kit content:**
- Substrate solution
 - Buffer solution
 - Wash solution
 - Labeling solution
 - Solubilization solution
 - Instruction manual

XTT - CVDE KIT SIZES AND REFERENCE NUMBERS

REFERENCE NO.	NUMBER OF TESTS
AKXCV96.300	2 x 300
AKXCV96.1200	2 x 1200

**Kits with plasticware (microplates and reservoirs) are also available.
Individual reagents and other kit sizes available upon request.**

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