

IN CYTOTOX

XTT-NR-SRB



APPLICATIONS

Combined colorimetric assays for the quantification of mitochondrial metabolism, lysosomal integrity and activity, and total protein synthesis rate of cells in response to pharmaceutical, chemical and environmental compounds, and nutrients.

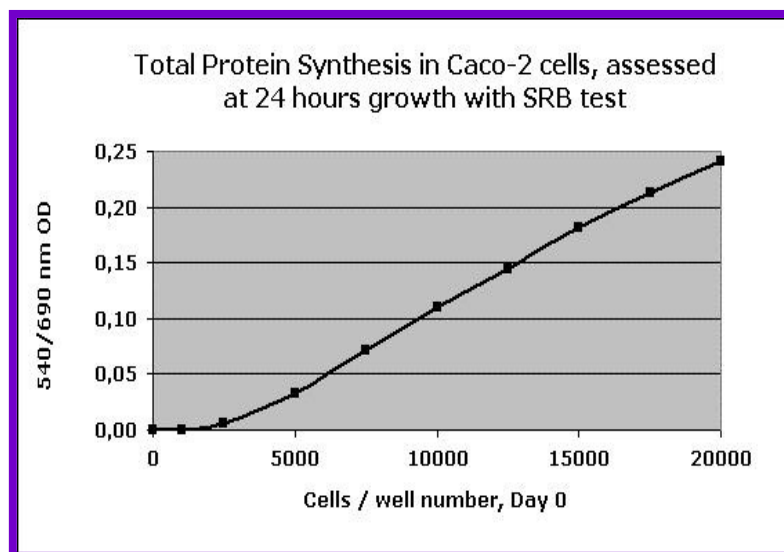
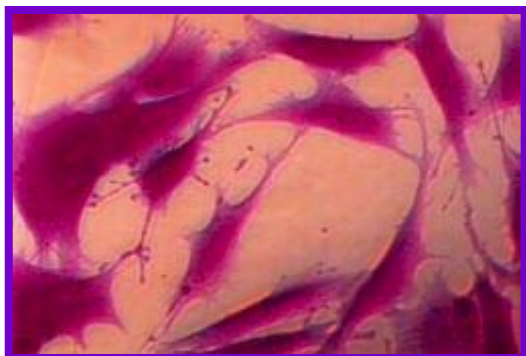
PRINCIPLE

This kit allows to measure sequentially three cytotoxicity parameters in one single cell culture: Mitochondrial activity (**XTT: Tetrazolium Hydroxide**), lysosomal integrity and activity (**NR: Neutral Red**), and total protein synthesis rate (**SRB: Sulforhodamine B**).

XTT is reduced in the cells to formazan by mitochondrial succinate dehydrogenase. The reduction rate is measured and correlates with mitochondrial activity. The neutral red (NR) assay procedure is based on the ability of viable cells to incorporate and bind neutral red within lysosomes. The fixed SRB dye, measured photometrically after solubilization, correlates with total protein synthesis rate and therefore with cell proliferation.

BIOLOGICAL PARAMETERS EVALUATION

- IC₅₀ (Inhibitory Concentration 50%)
- Respiratory chain activity
- Lysosomal activity
- Total protein synthesis
- Cell proliferation



TECHNICAL SPECIFICATIONS

- Absorbance:**
- XTT: 480 (optimum) or 450 nm
 - NR: 540 nm
 - SRB: 540 nm
(Recommended reference filters: 690 nm)
- Approximate assay time (total):**
- 8 hr + time to dry the plate (SRB). SRB reading can also be done the next morning.
- Available kit configurations:**
- Reagents only
 - Reagents and 96-well microplates, sterile reagent reservoirs
- XTT-NR-SRB Kit content:**
- Buffer solutions
 - Substrate solutions
 - Labeling solution
 - Wash solutions
 - Solubilization solutions
 - Rinsing solution
 - Fixing solutions
 - Instruction manual

XTT-NR-SRB-KIT SIZES AND REFERENCE NUMBERS

REFERENCE NO.	NUMBER OF TESTS
AKXTRS 96.300	3 x 300
AKXTRS 96.1200	3 x 1200

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

Version 1.5 10/2008

Distributed by:

ANIARA

Manufactured By: Xenometrix AG