

IN CYTOTOX



LDHe - XTT



APPLICATIONS

Combined colorimetric assays for the quantification of the membrane integrity and the mitochondrial metabolism and respiratory chain activity of cells 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: Membrane integrity (**LDHe: Extracellular Lactate Dehydrogenase**), and mitochondrial activity (**XTT: Tetrazolium Hydroxide**).

Released LDH, a marker for cell damage, is determined kinetically in the medium (NADH consumption). XTT is reduced in the cells to formazan by mitochondrial succinate dehydrogenase. The reduction rate is measured and correlates with mitochondrial activity.

Unlike some other LDHe assays, the In Cytotox LDHe assay measures the oxidation of NADH to NAD⁺ and the concurrent reduction of pyruvate to lactate. By providing an excess of pyruvate in the reaction mixture, the In Cytotox LDHe assay is therefore insensitive to pyruvate in the culture medium, which can cause product inhibition of the reverse reaction implemented in other LDHe assays.

BIOLOGICAL PARAMETERS EVALUATION

- IC₅₀ (Inhibitory Concentration 50%)
- Membrane integrity
- Respiratory chain activity
- Cell viability

TECHNICAL SPECIFICATIONS

- Absorbance:**
- LDHe: 340 nm
 - XTT: 480 (optimum) or 450 nm
- Approximate assay time (total):**
- 3 hrs 45 min if done sequentially. LDHe reading can also be done during XTT incubation.
- Available kit configurations:**
- Reagents only
 - Reagents and 96-well microplates, sterile reagent reservoirs
- LDHe - XTT kit content:**
- Reconstitution solution
 - Substrate solutions
 - Activator solution
 - Solubilization solution
 - Instruction manual

LDHe XTT KIT SIZES AND REFERENCE NUMBERS

REFERENCE NO.	NUMBER OF TESTS
AKLEX96.300	2 x 300
AKLEX96.1200	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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