# Cellular viability using the MTT assay

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### Organisation

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**Geographical Area** Flemish Region

## SCOPE OF THE METHOD

| | |
|---|---|
| **The Method relates to** | Human health |
| **The Method is situated in** | Basic Research |
| **Type of method** | In vitro - Ex vivo |
| **Species from which cells/tissues/organs are derived** | Diverse |
| **Type of cells/tissues/organs** | Diverse |

## DESCRIPTION

### Method keywords

cell culture

cell viability test

MTT cytotoxicity assay

### Scientific area keywords

toxicity testing

viability study

### Method description

Cells are treated with compounds and after a specific incubation time the MTT reagent is added. In living cells, the MTT is reduced to the purple formazan. The amount of formazan is related to the amount of living cells. Next, the medium and MTT reagent are aspirated and DMSO is added after which the purple solution is quantified using UV-VIS.

### Lab equipment

Cell incubator ;

UV-VIS spectrophotometer (or microplate reader).

### Method status

Published in peer reviewed journal

## PROS, CONS & FUTURE POTENTIAL

### Advantages

Enables high-throughput screening.

### Challenges

No insights in cell death mechanisms (apoptosis, necrosis,...).