Cellular viability using the MTT assay

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Organisation

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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,...).

REFERENCES, ASSOCIATED DOCUMENTS AND OTHER INFORMATION