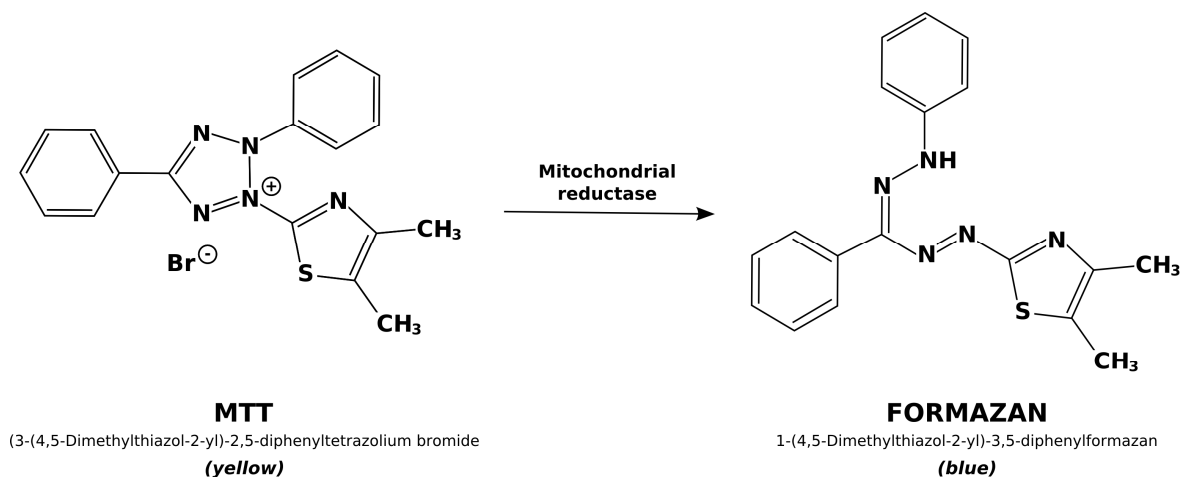


MTT – Cell Proliferation Kit - Results

OZ Biosciences is delighted to announce the launching of new MTT – Cell Proliferation Kit. **This kit is designed for spectrophotometric quantification of cell growth, viability and proliferation and can be used as a direct indicator of cytotoxicity and apoptosis.**

The MTT – Cell Proliferation Kit is a colorimetric assay for measuring the mitochondrial reductase activity in living cells. It is based on the cleavage of membrane-permeable yellow tetrazolium salt MTT to blue/purple formazan crystals by metabolically active cells.



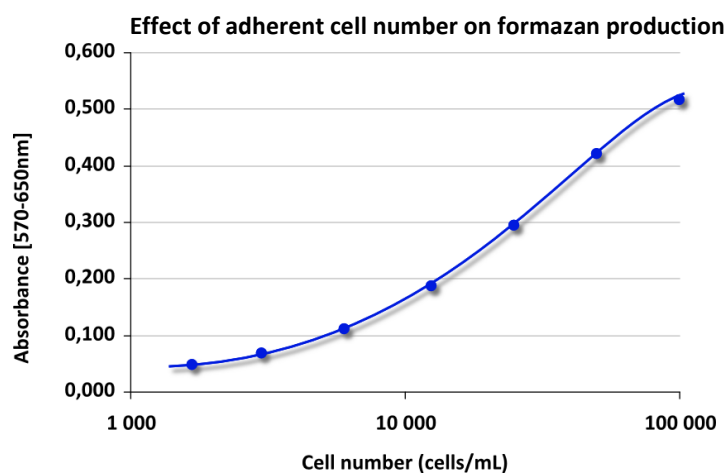
MTT metabolization to formazan salt in metabolically active cells

A solubilization solution is then added to dissolve formazan into a colored solution. Spectrophotometric measurement of MTT-formazan at 570 nm allows quantitation of cell viability. Reagents used yield low background absorbance; a strong correlation between cell number and signal produced exists, allowing an accurate measurement of cell viability.

Main **MTT – Cell Proliferation Kit** features are:

1. Easy and Ready to use
2. Accurate and Economical
3. Stable under storage conditions

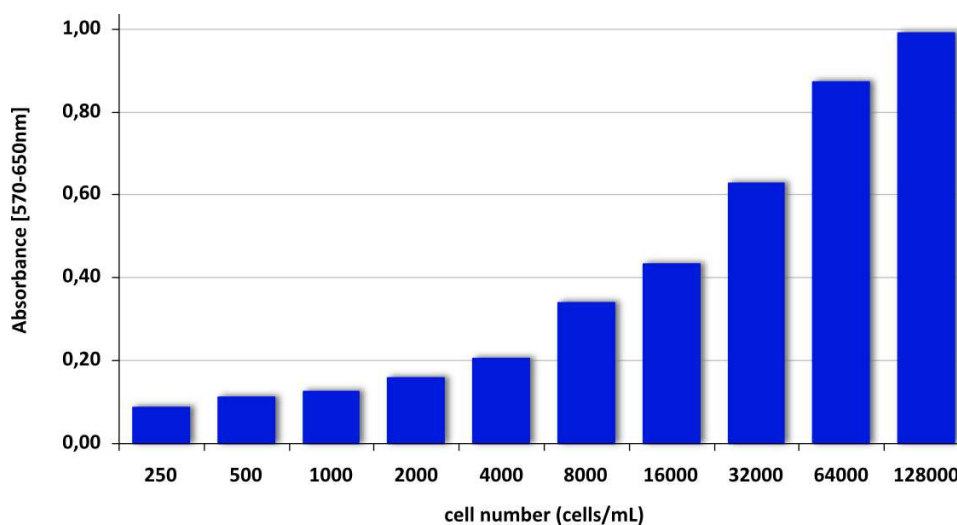
Assay Sensitivity – Adherent cells



This colorimetric assay system using MTT allows to measure metabolic activity in a large range of cells. HEK-293T cells were seeded at 2×10^3 to 1×10^5 cells/well in a 24-well plate in complete medium. 24 hours later, MTT – cell proliferation assay was performed and formazan production was quantified using spectrophotometric measurement.

Assay Sensitivity – Suspension cells

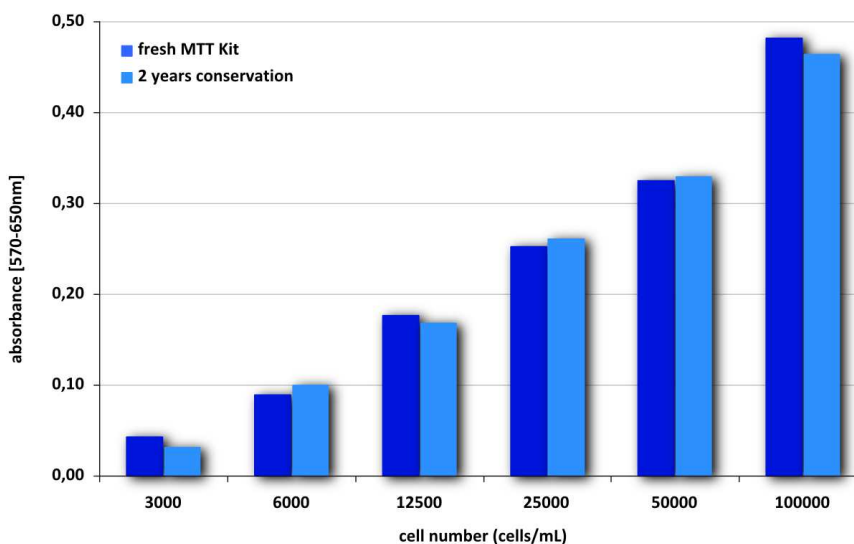
Effect of suspension cell number on formazan production



Metabolic activity was measured on suspension cells using MTT – Cell Proliferation Kit. 2.5×10^2 to 1.28×10^5 suspension cells, KG1A were cultured in 96-well plate and metabolic activity was measured according to the suspension cells protocol. The absorbance revealed a high correlation to the cell number, even at low cell concentration.

Assay Stability – 2 years conservation

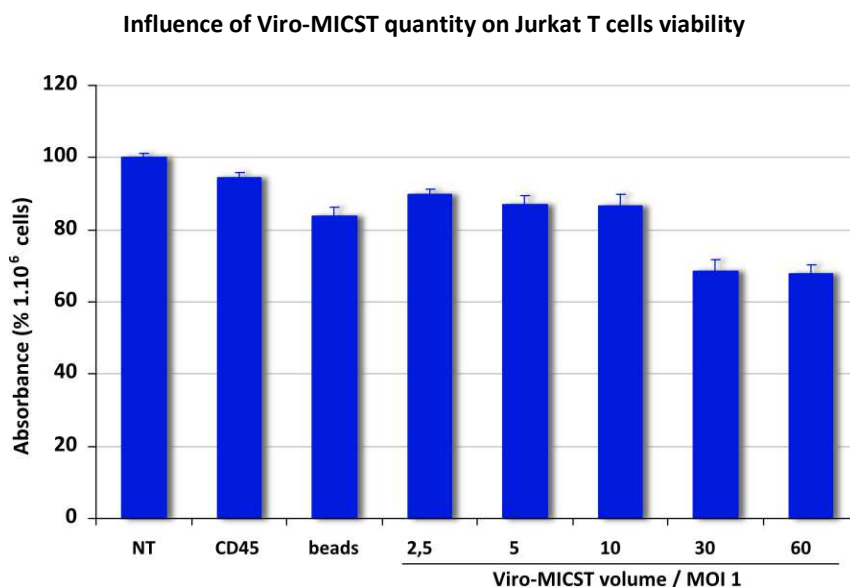
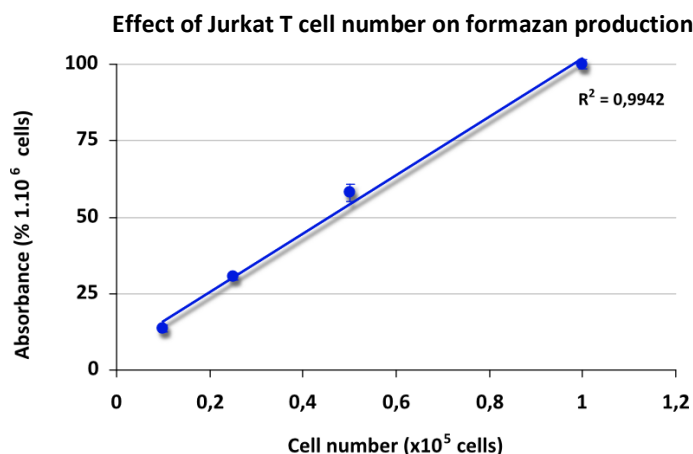
Color formation comparison between Fresh and stored MTT Kit



3×10^3 to 1×10^5 Vero cells were plated and 24 h later, metabolic activity was measured using the MTT – Cell Proliferation Kit freshly prepared (dark blue bars) or stored at least 2 years at -20°C (light blue bars). Absorbance read showed high correlation to the cell number and high reproducibility within two years conservation.

Sample Data – MTT – Cell Proliferation Kit for cell viability

Results presented below show an example of typical data analysis obtained with this assay. For more information on these data please refer to [Viro-MICST™ reagent](#) (OZ Biosciences).



The MTT – Cell Proliferation kit was used to analyze viability after LentiViral i-MICST procedure on Jurkat T cells. Briefly 1.10⁶ Jurkat T cells were labeled with CD45 microbeads and loaded onto a MACS® column modified with Lentivirus (MOI 1) and several amounts of Viro-MICST. 48H after transduction experiment, viability was monitored using MTT Kit. The upper graph shows a high correlation between cell number and absorbance reading. The lower graph represents cell viability following i-MICST procedure determined using the MTT – Cell Proliferation Kit. Values presented here are expressed as a percentage of formazan production in 1.10⁶ non treated cells.

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Bibliographic references

Please consult our list of references available on the website: www.ozbiosciences.com.