

# in vitro MDSC-T cell immunosuppression assay

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## Contact person

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## Organisation

**Name of the organisation** Katholieke Universiteit Leuven (KUL)

**Department** Oncology

**Specific Research Group or Service** Laboratory of Tumor Immunology and Immunotherapy

**Country** Belgium

**Geographical Area** Flemish Region

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## SCOPE OF THE METHOD

<b>The Method relates to</b>	Human health
<b>The Method is situated in</b>	Translational - Applied Research
<b>Type of method</b>	In vitro - Ex vivo
<b>Species from which cells/tissues/organs are derived</b>	Mice

<b>Type of cells/tissues/organs</b>	Tcells derived from spleen of naive mice and Myloid cells derived from bone marrow of naive mice
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## DESCRIPTION

### Method keywords

in vitro assay  
Coculture  
immune response  
flow cytometry  
cell proliferation

### Scientific area keywords

Oncology  
Immunology  
cancer treatment  
immunotherapy

### Method description

Myeloid progenitor cells derived from the bone marrow of mice are stimulated using a cytokine mixture to become myeloid derived suppressor cell (MDSC) like cells. These are co-cultured with activated CD8+ T-cells derived from a mouse spleen. The MDSC like cells will suppress the proliferation of the T-cells in co-culture which can be observed by staining the CD8+ T-cells using a proliferation dye and flow cytometry. This assay can then be used to screen immunotherapeutic compounds on their capacity to reduce the immunosuppressive effects of MDSC.

### Lab equipment

Sterile cell culture lab  
Flow cytometer

### Method status

History of use

Published in peer reviewed journal

## REFERENCES, ASSOCIATED DOCUMENTS AND OTHER INFORMATION

### References

Baert et al. Front Immunol 2019

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