

New Patient-Derived Microtumors with Autologous TILs Demonstrate Efficacy of Emactuzumab.

Malignant Glioma

Emactuzumab

Cells: AutoTIL™
Microtumors

Objectives

- Evaluate the efficacy of Emactuzumab, a CSF1R-blocking antibody (monotherapy), in glioblastoma-derived microtumors containing autologous TILs.
- Investigate how CSF1R inhibition modulates the tumor-immune microenvironment and restores anti-tumor immunity.



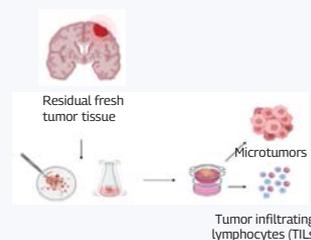
Methods

Patients:

Glioblastoma, approval #077/2016B02 Germany

BioAnalysis:

CellTox™ Green Cytotoxicity Assay.

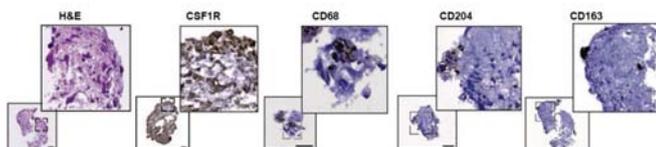


Platform:

Patient-derived microtumors using AutoTIL™ technology.

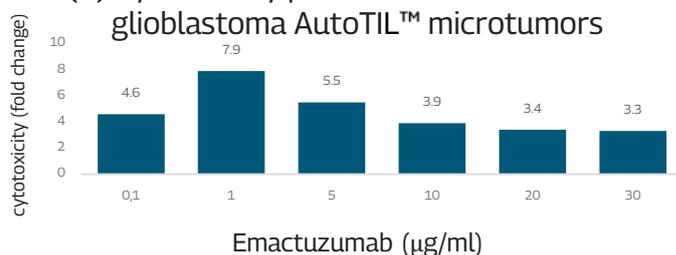
Results

(A) Co-culture Tumor + autologous TILs



H&E stain; scale bar 100 μm

(B) Cytotoxicity profile of Emactuzumab in glioblastoma AutoTIL™ microtumors



- Treatment of **glioblastoma-derived microtumors** with Emactuzumab produced a clear, dose-dependent **cytotoxicity profile**, reaching maximal activity at 1 μg/mL. This reflects effective CSF1R blockade within the **patient-specific tumor microenvironment**.
- By inhibiting CSF1R signaling, Emactuzumab reduced immunosuppressive macrophage activity, thereby enhancing **autologous TIL activation** and tumor cell killing.
- Results represent mean values from triplicate **cytotoxicity assays** performed with CellTox™ Green Cytotoxicity Assay.



Conclusion

- Emactuzumab effectively restores anti-tumor immunity in glioblastoma-derived microtumors by blocking CSF1R-mediated immunosuppression.
- Patient-derived AutoTIL™ microtumors with autologous TILs provide a clinically relevant platform to assess macrophage-T cell interactions and support CSF1R inhibition as a therapeutic strategy.

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