Lung tumor model: LL-2
syngeneic – subQperior

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➢ SubQperior mouse tumor models

Imagine syngeneic models with almost no tumor ulceration, nearly 100% take rate, and homogeneous tumor growth.

We have developed our tumor models with an implantation method overcoming all common problems researchers experience with subcutaneous tumor models. The solution is simple: change the injection site from subcutaneous to mammary fat pad and experience an impressive difference: get beautiful growth curves and with the ease of calipering tumor size. SubQperior = superior to subcutaneous.

➢ Tumor cell line LL-2

Origin: lung / mouse C57BL/6
Description: lewis lung carcinoma

➢ Study example

Comparison of LL-2 tumor growth characteristic after subcutaneous vs. subQperior implantation shows larger tumor volumes and a longer treatment window for subQperior tumors.

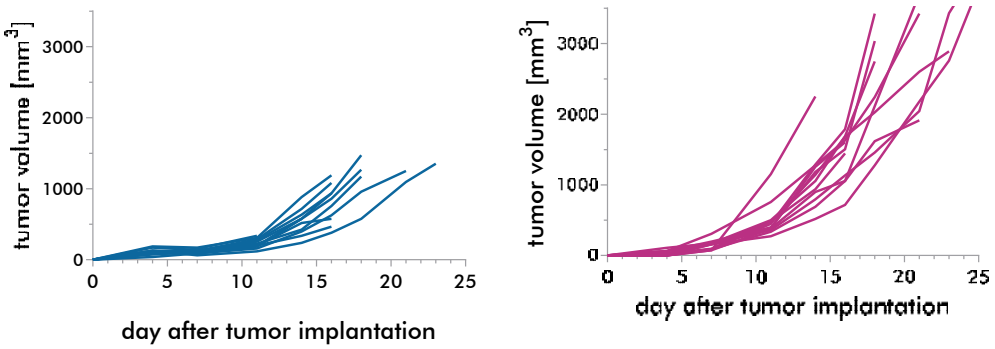

Figure 1: *C57BL/6 mice were implanted subcutan-eously (left) and into the mammary fat pad (subQperior; right) with LL-2 cells. Data are displayed as single growth curves.*

➢ Quality assurance

- Routine authentication of tumor cell lines by STR profiling
- Mycoplasma testing of tumor cells by PCR just prior to implantation
- Routine health monitoring of sentinel animals (according to FELASA guide lines)
- Animal work according to the 5R rules (reduce, refine, replace, responsible, remember)

Note: Graphs depicted are derived from study examples. Each study is a biological system of its own and subject to intrinsic variation.

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➢ Study example – Immune Checkpoint Inhibitors

Mice bearing LL-2 cells implanted in the mammary fat pad were treated with anti-mPD-1 and anti-mCTLA-4. Treatment started after randomization when tumor volumes had reached a size of approximately 11 mm^3.

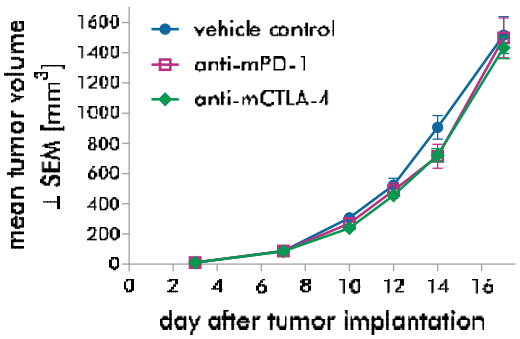

Figure 2: *LL-2 tumors were treated with anti-mPD-1 and anti-mCTLA-4. Tumor growth was monitored by calipering.*

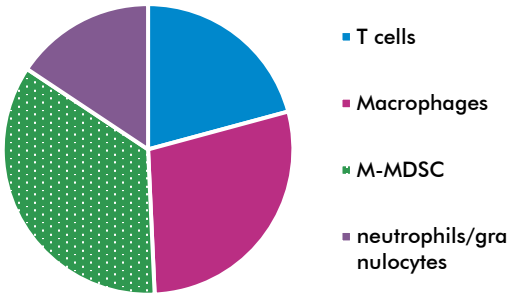

Figure 3: *Flow cytometry analysis of LL-2 primary tumor tissue showing the relative distribution of the major immune cell populations.*

➢ Immune cell populations infiltrating LL-2 tumors

At tumor model endpoint, primary tumor tissues were appropriately processed and analyzed by flow cytometry for determination of T cell, B cell, macrophage, NK cell, dendritic cell and myeloid cell populations.

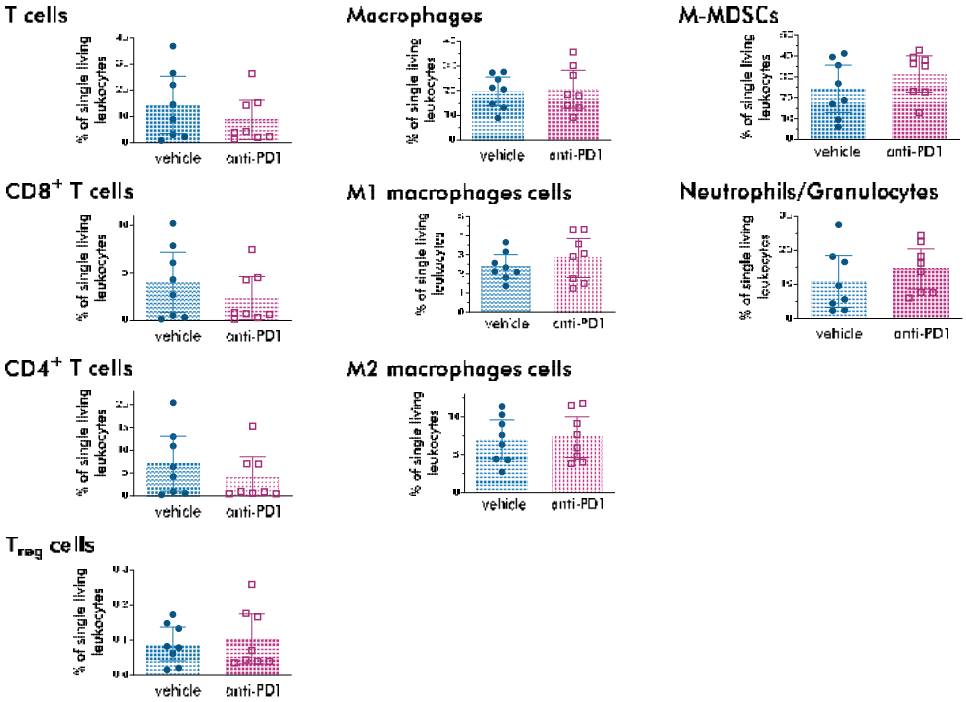

Figure 4: *Flow cytometry analysis of LL-2 primary tumor tissue is depicted as percentage of living immune cell tumor infiltrate. For each immune population, data are displayed as mean bar together with their corresponding + 95% CI.*