Mesothelium tumor model: AB12
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: beautiful growth curves with the ease of calipering tumor size. SubQperior = superior to subcutaneous.

We have tested all of our subQperior models with common immune-checkpoint inhibitors and investigated their immune-infiltrate with our all-in-one 17 marker flow cytometry panel. Please inquire to see more data.

➢ AB12 cells (CPQ-289)

Origin: lung / mouse
Description: malignant mesothelioma

➢ Study example

Comparison of AB12 tumor growth characteristic after subcutaneous vs. subQperior implantation shows larger tumor volumes and longer treatment window for subQperior tumors.

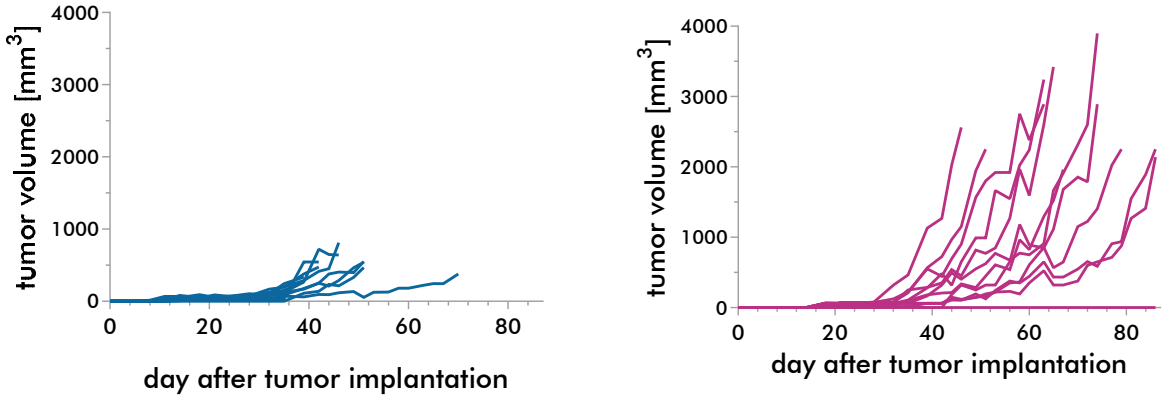

Figure 1: *Balb/C mice were implanted subcutaneously (left) and into the mammary fat pad (subQperior; right) with AB12 cells. Data are displayed as single growth curves.*

➢ Study outline

- subQperior implantation of AB12 cells
- randomization into treatment groups according to tumor sizes
- tumor sizes are measured via calipering twice weekly
- animal behavior is monitored daily
- animal weights are measured three times weekly

- Accessory services: tumor wet weight and volume measurement at necropsy, blood sampling, flow cytometry, paraffin embedding of tumor tissue, histological & pathological analysis, cytokine determination, provision of tumor tissue for target validation

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➢ Study example – Immune-Checkpoint Inhibitors

Mice bearing AB12 cells implanted in the mammary fat pad were treated with anti-PD1 and anti-CTLA4 antibodies. Treatment started after randomization when tumor volumes had reached a size of approximately 80 mm^3.

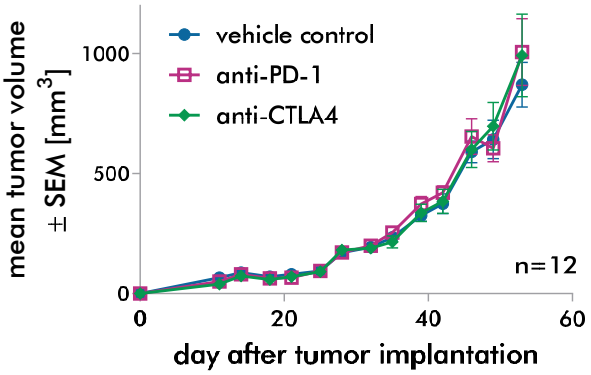

Figure 2: *AB12 tumors were treated with anti-mPD-1 and anti-mCTLA-4. Tumor growth was monitored by calipering.*

➢ Immune cell infiltrate of AB12 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.

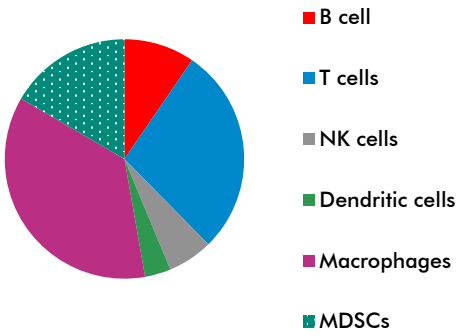

Figure 3: *Flow cytometry analysis of AB12 primary tumor tissue showing the relative distribution of the major immune cell populations.*

➢ 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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