Mesothelium tumor model: AB12
syngeneic - subQperior

IN VIVO TESTING SERVICES

➢ SubQperior mouse tumor models

Imagine a syngeneic model with no tumor ulceration, 100% take rate and homogeneous tumor growth. Not possible?

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.

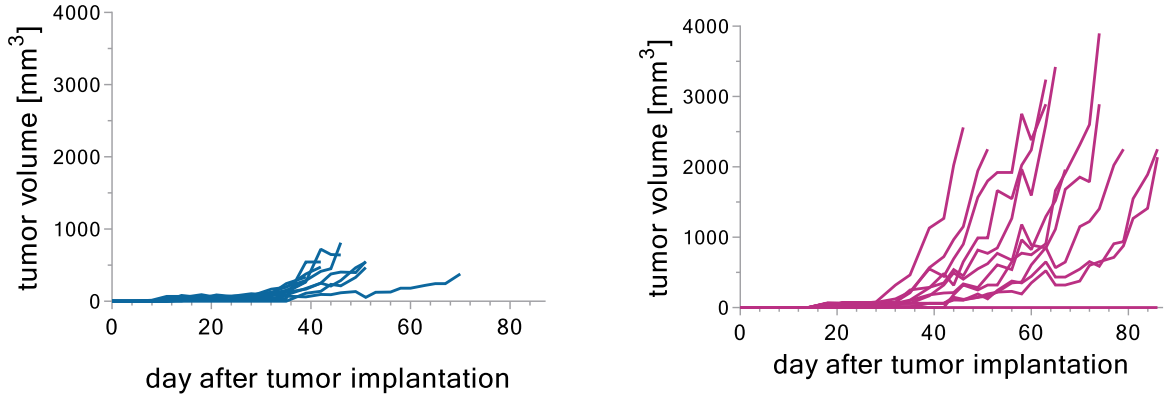

Figure 1: *Balb/C mice were implanted subcutaneously (left) and into the mammary fat pad (subQperior; right) with AB12 cells. Data are displayed as single growth curves.*

➢ 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

➢ 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.

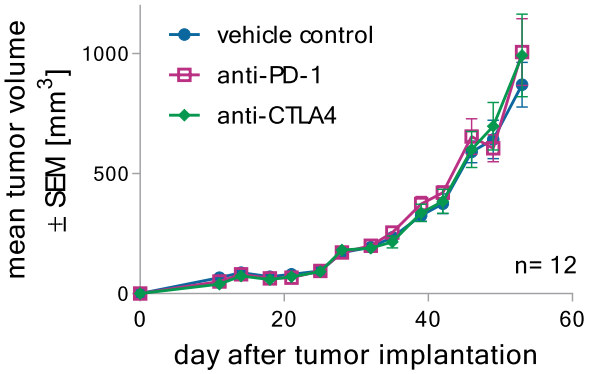

Figure 2: *AB12 tumors were treated with anti-mPD-1 and anti-mCTLA-4. Tumor growth was monitored by calipering.*

➢ 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.

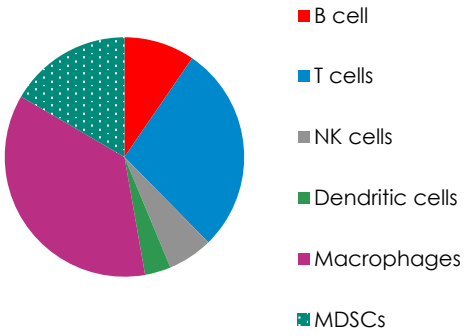

Figure 3: *Flow cytometry analysis of AB12 primary tumor tissue showing the relative distribution of the major immune cell populations.*

➢ 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.