Colon tumor model: CT26wt
syngeneic – subcutaneous

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➢ Subcutaneous mouse tumor models

Subcutaneously implanted tumor cells represent a convenient means to test novel potential anti-cancer drugs *in vivo*. A large variety of human and murine cell lines derived from both, solid tumors or leukemias, covering a wide range of tumor geno- and phenotypes, have been adapted to grow in mice, and thus allow testing of a compound in the appropriate tumor model.

➢ CT26wt cells (CPQ-238)

Origin: colon / mouse BALB/c
Description: colon carcinoma

➢ Study outline

- subcutaneous implantation of CT26wt cells into the left flank
- 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, immune cell frequency determination in the tumor and lymphatic tissues by flow cytometry, paraffin embedding of tumor tissue, histological & pathological analysis, cytokine determination, provision of tumor tissue for target validation

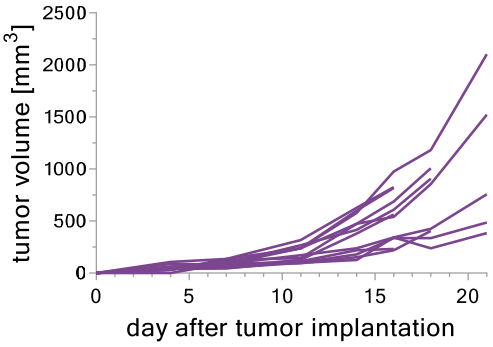

Figure 1: *Growth of CT26wt tumors in vivo. Tumor volume, mean values +/- SEM. Termination on day 21.*

➢ Study example – 5-FU

In the study shown here, mice bearing CT26wt tumors were treated with 5-FU or vehicle. Treatment started after randomization when tumor volumes had reached a size of approximately 70-100 mm³.

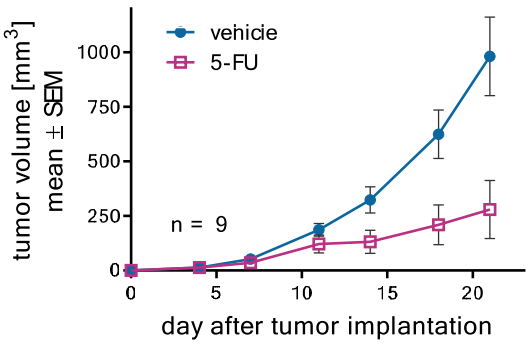

Figure 2: *CT26wt tumors were treated with a 5-FU. Tumor growth was monitored by calipering.*

➢ *please turn over* ➢

➢ Study example – Immune checkpoint inhibition

Treatment of CT26wt tumor-bearing mice with checkpoint inhibitors anti-PD-L1, anti-PD-1 and anti-CTLA-4 antibody results in tumor growth inhibition.

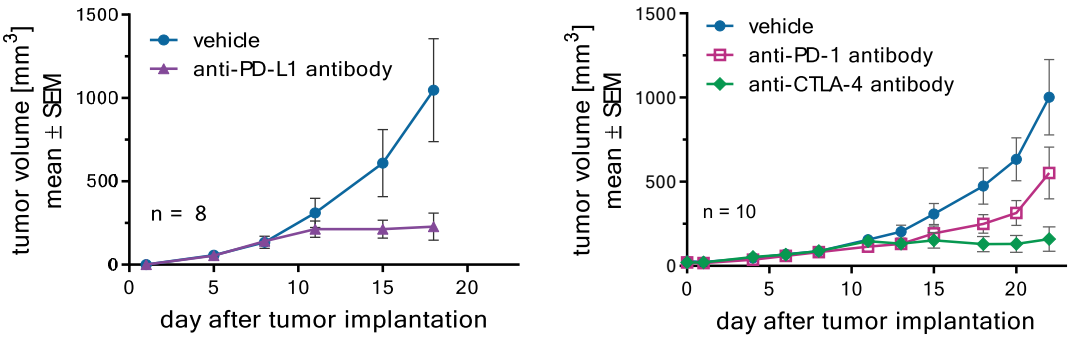

Figure 3: *CT26wt tumors were treated with anti-PD-1 and anti-CTLA-4 antibodies starting at day 8 and anti-PD-L1 antibodies starting at day 5. Tumor volume, mean values +/- SEM*

➢ Study example – Flow cytometry analysis

The mode of action of immuno-modulating therapies can be investigated via detection of changes in the frequency of tumor-infiltrating immune cells.
The frequencies of a variety of immune cell populations in subcutaneous CT26wt tumors is shown on the right.

For flow cytometry analysis we offer a 17-marker staining panel including

Live/dead dye, CD3, CD4, CD8a, CD45, CD25, CD11b, Ly6C, Ly6G, F4/80, CD11c, MHC class II, CD206, CD335, CD49b, B220 and FoxP3

for investigation of
T cells (CD8+, CD4+, Treg), B cells, NK cells,
Macrophages (M1, M2), dendritic cells,
Neutrophils/Granulocytes, M-MDSCs

Please find more information on the flow cytometry info sheet.

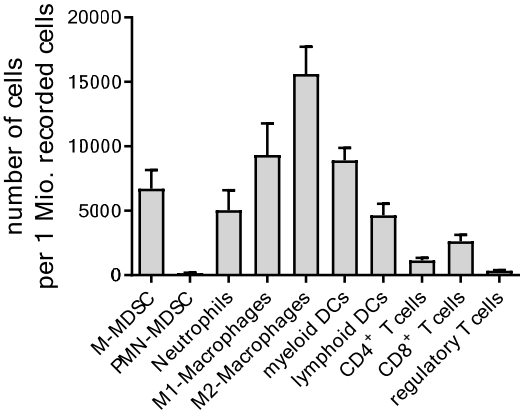

Figure 4: *Distribution of immune cells infiltrating CT26wt tumors per 1 million tumor suspension cells.*

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