

➤ 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: get beautiful growth curves and with the ease of calipering tumor size. SubQperior = superior to subcutaneous.

➤ Tumor cell line MC38-CEA (CPQ-449)

Origin: colon / mouse
Description: colon adenocarcinoma
Modification: expressing human CEA = carcinoembryonic antigen suited for investigation of tumor specific T cell response

➤ Study example

Comparison of MC38-CEA tumor growth characteristic after subcutaneous vs. subQperior implantation shows more homogenous growth and larger tumor volumes after subQperior implantation.

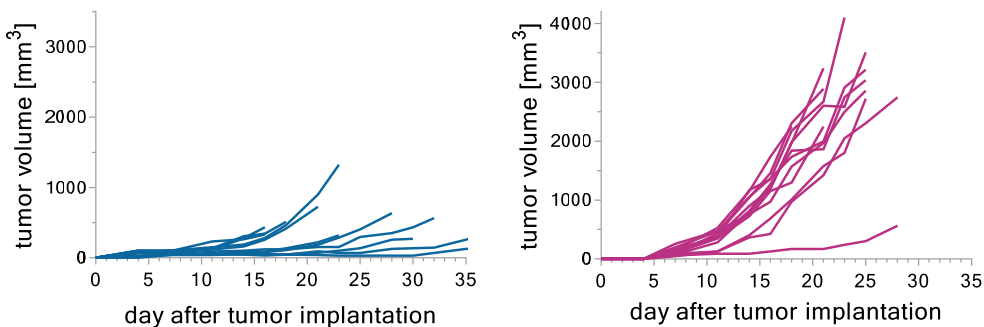


Figure 1: C57BL/6N mice were implanted subcutaneously (left) and into the mammary fat pad (subQperior; right) with MC38-CEA cells. Data are displayed as single growth curves.

➤ 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.

➤ Study example – Immune Checkpoint Inhibitors

Mice bearing MC38-CEA 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 58 mm³.

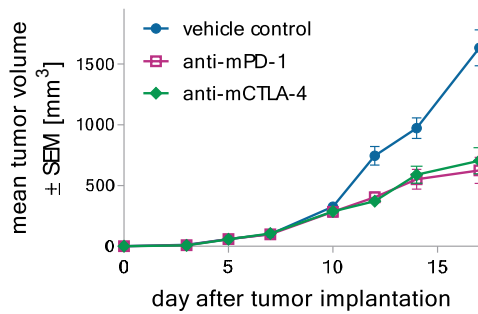


Figure 2: MC38-CEA tumors were treated with anti-mPD-1 and anti-mCTLA-4. Tumor growth was monitored by calipering.

➤ Immune cell populations infiltrating MC38-CEA tumors

Please inquire.