Subcutaneous mouse tumor models

Subcutaneously implanted tumor cells represent a convenient means to test novel potential anticancer 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 a murine host, and thus allow testing of a compound in the appropriate tumor model.

U-87 MG cells (CPQ-245)

Human U-87 MG cells (ATCC-No: HTB-14) were isolated from a 44 years old male patient with a glioblastoma classified as grade IV astrocytoma. As routine quality controls, the cells are regularly checked for Mycoplasma contamination and authenticity (via STR DNA Typing).

Tumor growth in vivo

U-87 MG cells harvested from tissue culture flasks are implanted subcutaneously into the left flank of mice. Resulting tumors are monitored by calipering twice weekly.

Animal weights are measured three times weekly.
Animal behaviour is monitored daily.
All mice are maintained in separated isolated housing at constant temperature and humidity.

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.

Figure 2: Tumor growth of U-87 MG cells in a subcutaneous xenograft in vivo model. Tumor volume, mean values +/- SEM