

### ➤ 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.

### ➤ MOLT-4 cells

MOLT-4 cells were isolated from a patient with a T-cell lymphoblastic leukemia and express a G → A mutation at codon 248 of the p53 gene, P53 is not expressed. The patient had prior multidrug chemotherapy.

Synonyms:

Molt-4; MOLT 4; Molt 4; MOLT.4; MOLT4; Molt4; GM02219; GM02219C; GM2219C; GM02219D

### ➤ Tumor growth in vivo

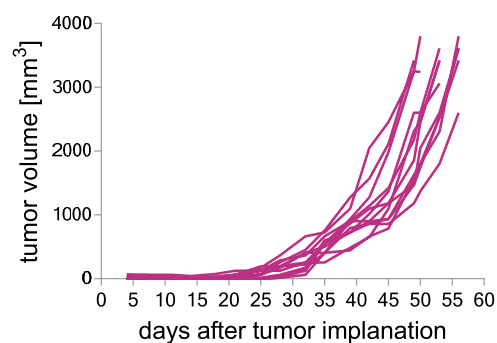
MOLT-4 cells harvested from tissue culture flasks are implanted into the subcutaneous space of the left flank of the mice. Resulting tumors are monitored by calipering twice weekly.

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 1:** Growth of MOLT-4 cells as subcutaneous xenograft model in mice. Primary tumor volume, N=12/11

### ➤ Quality Assurance

- Routine authentication of tumor cell lines by STR profiling
- Mycoplasma testing of implanted 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.