

# HT29: Subcutaneous colorectal cancer xenograft tumor model

## ➤ Subcutaneous mouse tumor models

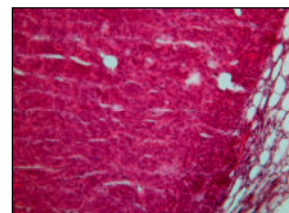
Subcutaneously implanted tumor cells represent a convenient means to test novel potential anticancer drugs *in vivo*. A large variety of human and murine cell lines derived from both, solid tumors or leukemias, covering a wide range of tumor geno- and phenotypes, have been adapted to grow in a murine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

## ➤ HT29 cells

Human HT29 cells were isolated from a patient with a colorectal adenocarcinoma.

A Hematoxylin-Eosin stained paraffin section of a subcutaneous HT29 xenograft is shown in Fig. 1.

As routine quality controls, the cells are regularly checked for Mycoplasma contamination and authenticity (via STR DNA Typing).



**Figure 1:** Hematoxylin-Eosin stained paraffin section of a subcutaneous HT29 xenograft.

## ➤ Expression of oncology relevant proteins

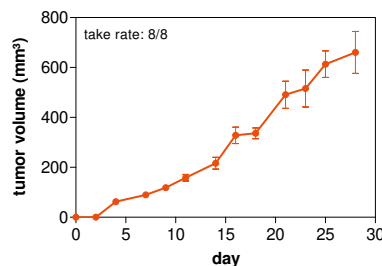
Expression data using western blotting and immunohistochemistry are available for a selection of protein kinases. For information, please inquire!

## ➤ Tumor growth *in vivo*

HT29 cells harvested from tissue culture flasks are implanted into the subcutaneous space of the left flank of the mice. Resulting tumors are monitored by caliper measurement 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 HT29 cells in a subcutaneous xenograft *in vivo*, tumor volume, mean values  $\pm$  SEM

## ➤ Study example

In the study shown here, one group of mice bearing subcutaneous HT29 xenografts was treated with Camptothecin, the other group with vehicle only. Treatment started after tumor challenge at day 1 (Preventional study type).

**Figure 3:** Effect of Camptothecin on tumor growth of HT29 cells *in vivo* tumor volume, mean values  $\pm$  SEM

