

ProQinase's iProKiTe-PACKAGE 4: *IN VIVO* TUMOR MODELS

Early implementation of *in vivo* tumor models significantly saves time and costs in preclinical drug evaluation. For this purpose ProQinase has established a large panel of *in vivo* tumor models with focus on clinical relevance. Tumor type oriented and target specific *in vivo* studies can be performed with our *in vivo* tumor models covering most of the important tumor entities. Depending on the customer's request different therapy concepts can be evaluated.

Our know-how and our facility with its large number of available *in vivo* tumor models are currently used by many pharmaceutical companies within Europe due to our customer-specific individual service:

- ProQinase's *in vivo* models are focused on anticancer drug development.
- Tumor type oriented and target specific *in vivo* studies can be performed.
- ProQinase has broad experience in orthotopic tumor models and the application of bioluminescence imaging.
- We have the capacity for approx. 3,200 animals (mice, rats).
- Health monitoring is established in accordance with FELASA (Federation of European Laboratory Animal Science Associations) guidelines.

AVAILABLE *IN VIVO* TUMOR MODELS - OVERVIEW

The following *in vivo* test systems are currently available at ProQinase. A more detailed description of ProQinase's *in vivo* tumor models is available on request (info@proqinase.com).

Orthotopic Tumor Models

ProQinase offers the following orthotopic and metastasizing *in vivo* tumor models in mice. The application of bioluminescence imaging enhances the quality of orthotopic tumor studies by improving the determination of antitumoral and antimetastatic potency of test compounds.

Tissue Origin	Tumor Cell Line	Species
Kidney	RENCA	Mouse
Liver	Alexander*	Human
Pancreas	AsPC-1	Human
	MIA PaCa-2	Human
Prostate	PC-3	Human
Skin	B16F10*	Mouse

* not yet available as luciferase-transduced cell line

Target-specific Tumor Models with Genetically Engineered Cells

ProQinase offers target-specific tumor models using cell lines, which were genetically engineered to control the expression of tumor-relevant proteins. Additional cell lines are in preparation, please inquire for detailed information.

Target	Tumor Cell Line	Species
Aromatase	MCF7 CA	Human
IGF1 Receptor ¹	MEF IGF1-R _{rep}	Mouse
ERBB2 Receptor ²	NIH3T3 ERBB2-R _{rep}	Mouse

¹The original MEF cell line is not tumorigenic. It was modified to express the human IGF1-R, which resulted in a cell line that is forming tumors in nude mice and that can be used to study IGF1-R inhibitors. The advantage of our genetic construct is that the gene can be shut off (repressed) by giving the animal tetracycline, which results in significant tumor regression. This is a unique and excellent positive control for the efficacy of IGF1-R inhibitors.

²The NIH3T3 fibroblasts cell line was genetically modified to overexpress the HER2/c-erbB2 receptor tyrosine kinase under control of a tetracycline regulated promoter. Doxycycline treatment represses the ERBB2 receptor expression (rep) leading to a significant tumor regression.

Subcutaneous Xenograft Tumor Models

ProQinase offers the following subcutaneous xenograft tumor models in mice. More cell lines of the NCI panel can easily be established, if they are tumorigenic in mice.

Tissue Origin	Tumor Cell Line	Species
Blood/Leukemia	MV4-11	Human
Brain	C6	Rat
	SK-N-MC	Human
Breast	MCF7	Human
	MDA-MB-468	Human
Cervix	HeLa	Human
Colon	HCT-116	Human
	HT29	Human
	LoVo	Human
	LS 174T	Human
	RKO	Human
Liver	Alexander	Human
Lung	A549	Human
	H69	Human
Ovary	SKOV-3	Human
Pancreas	AsPC-1	Human
	MIA PaCa-2	Human
Prostate	PC3	Human
Skin	A375	Human
	A431	Human

Feel free to contact us for more information and request our latest brochure for *in vivo* studies (pdf) via our home page!

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