

TRM: Mouse Mammary Tumor Virus-PyMT Transgenic Mice

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BACKGROUND

Transgenic mouse models that develop spontaneous mammary adenocarcinomas have proven valuable in revealing molecular mechanisms underlying tumorigenesis and metastasis. Models target specific pathways depending on the transgene being expressed under the control of the mouse mammary tumor virus long terminal repeat (MMTV-LTR) or whey acid protein (WAP) mammary gland promoters and thereby replicate genetic defects in subsets of human tumors.

TECHNOLOGY DESCRIPTION

MMTV-PyMT (MMTV-PyVmT) females develop palpable mammary tumors which metastasize to the lung. Mean latency is 92 days of age. Male carriers develop mammary tumors with a later onset. These mice express the Polyoma Virus middle T antigen under the direction of the mouse mammary tumor virus promoter/enhancer and may be suitable for use in studies related to breast cancer and altering the tumor microenvironment.

APPLICATIONS

These mice are suitable for use in studies related to breast cancer and altering the tumor microenvironment.

STATE OF DEVELOPMENT

The mice are designated Tangible Research Material (TRM). A complete description, including genotyping, phenotyping, etc is found at The Jackson Lab cat. No. 022974 <https://www.jax.org/strain/022974>

INTELLECTUAL PROPERTY INFO

Academic and non-profit institutions please order directly from The Jackson Laboratory. Commercial entities require a license from UC San Diego contact (<https://innovation.ucsd.edu/contact/>).

RELATED MATERIALS

- ▶ Davie SA, Maglione JE, Manner CK, Young D, Cardiff RD, MacLeod CL, Ellies LG. Effects of FVB/NJ and C57Bl/6J strain backgrounds on mammary tumor phenotype in inducible nitric oxide synthase deficient mice. *Transgenic Res.* 2007 Apr;16(2):193-201. Epub 2007 Jan 6
doi: 10.1007/s11248-006-9056-9 - 04/01/2007

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OTHER INFORMATION

KEYWORDS

Mammary tumors, Breast cancer,
Polyomavirus middle T antigen,
Mouse models, adenocarcinomas

CATEGORIZED AS

- ▶ **Medical**
 - ▶ Disease: Cancer
 - ▶ Disease: Women's Health
 - ▶ Research Tools
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