

# H11-CAG-LSL-Myc

<b>Nomenclature</b>	C57BL/6Smoc- <i>Igs2</i> <sup>em1(CAG-LSL-Myc)Smoc</sup>
<b>Cat. NO.</b>	NM-KI-00039
<b>Strain State</b>	Repository Live

## Gene Summary

<b>Gene Symbol</b>	<b>Synonyms</b>	H11, Hipp11, Iis2
	<b>NCBI ID</b>	<a href="#">Null</a>
	<b>MGI ID</b>	<a href="#">5461148</a>
	<b>Ensembl ID</b>	<a href="#">Null</a>

## Model Description

The c-Myc gene (also known as Myc) is abnormally expressed in many tumors and plays a critical role in the regulation of cell proliferation, growth and metabolism, gene instability, stimulation of angiogenesis, malignant transformation, cell differentiation and apoptosis. These mice harbor a loxP-flanked STOP cassette preventing transcription of a CAG promoter-driven Myc oncogene. The targeted mutation was inserted into the Hipp11(H11) locus by homologous recombination. Myc is expressed when bred to mice that express Cre recombinase.

**Research Application:** tumor-bearing model, cancer research

\*Literature published using this strain should indicate: H11-CAG-LSL-Myc mice (Cat. NO. NM-KI-00039) were purchased from Shanghai Model Organisms Center, Inc..

## Validation Data

Using the Crispr technology, the conditional overexpression structure of CAG promoter-loxp-STOP-loxp-Myc-polyA was inserted into the H11 locus to generate an H11-LSL-Myc mouse model. Located on mouse chromosome 11, the H11 locus is similar to Rosa26 and can be used to express a wide range of exogenous genes. The Myc gene can be highly expressed in Cre-expressing tissues after mating the H11-LSL-Myc mice with Cre mice.

For example: After mating H11-LSL-Myc mice with Alb-cre mice, a liver cancer can be spontaneously developed at 2 months old. This mouse model can be used in the establishment of tumor models and tumor research.

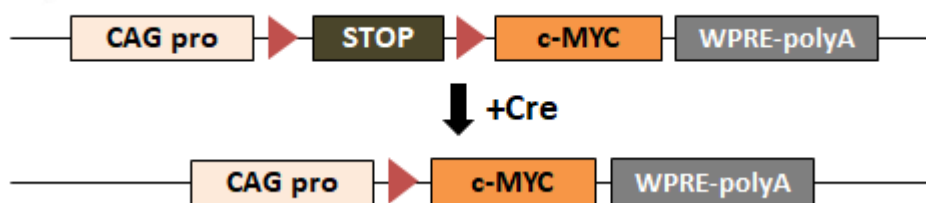


Fig1. Schematic diagram of H11-LSL-Myc knockin cassette.

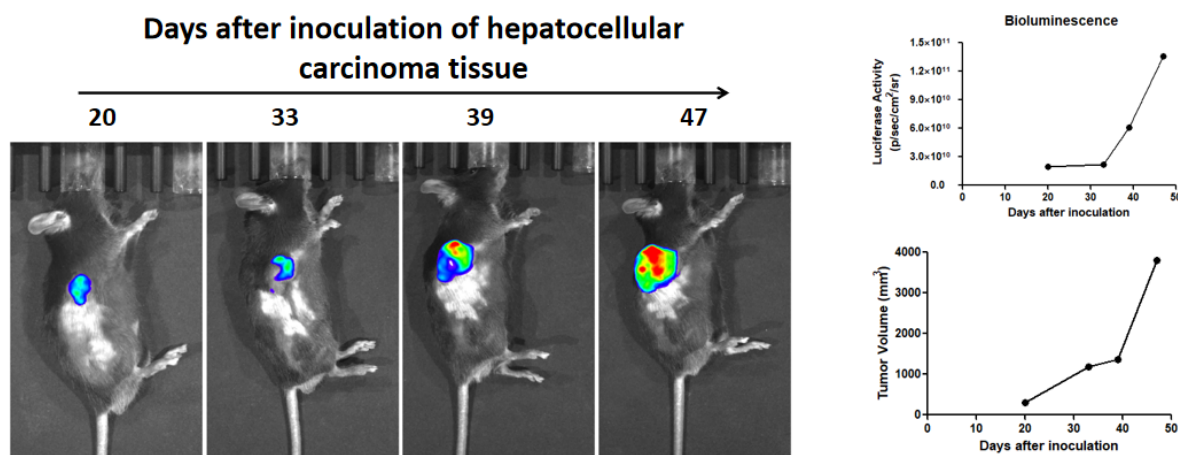


Fig2 Representative in vivo bioluminescence imaging showing the growth of tumors in C57BL/6 mice inoculated with hepatocellular carcinoma tissue from H11-LSL-Myc; Rosa26-LSL-Luc-EGFP; Alb-Cre mice.

## Publications

[A method to establish a c-Myc transgenic mouse model of hepatocellular carcinoma](#)

References: MethodsX

[Loss of Mettl3 enhances liver tumorigenesis by inducing hepatocyte dedifferentiation and hyperproliferation](#)

References: Cell Reports