

hLAG3

Nomenclature	B6.129S- <i>Lag3</i> ^{tm1(hLAG3)Smoc}
Cat. NO.	NM-HU-00049
Strain State	Embryo cryopreservation

Gene Summary

Gene Symbol LAG3	Synonyms	Ly66; CD223; LAG-3
	NCBI ID	16768
	MGI ID	106588
	Ensembl ID	ENSMUSG00000030124
	Human Ortholog	LAG3

Model Description

The endogenous mouse Lag3 gene exon1-7 was replaced by human LAG3 gene extracellular region by homologous recombination.

Research Application: Immunotherapy, cancer research, drug screening

*Literature published using this strain should indicate: hLAG3 mice (Cat. NO. NM-HU-00049) were purchased from Shanghai Model Organisms Center, Inc..

Validation Data

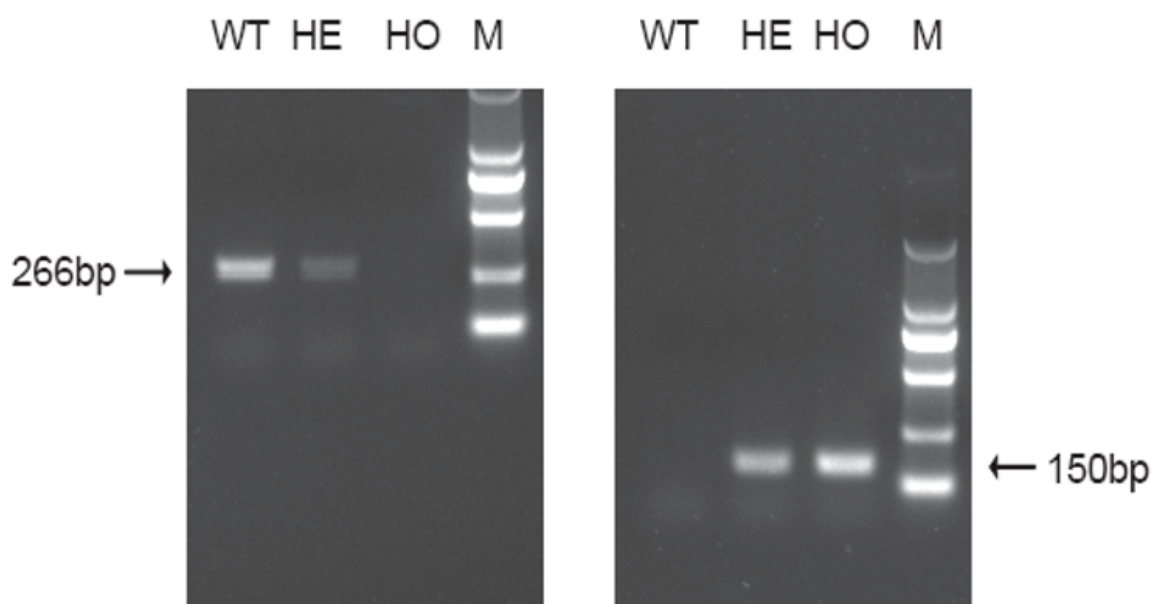


Fig1. Detection of LAG3 expression by RT-PCR.

Wild type: only one band at 266 bp with primers 5/6(mLag3);

Heterozygous: one band at 266 bp with primers 5/6(mLAG3) and one band at 150 bp with primers 7/8(hLAG3);

Abbr. M, DNA marker; HO, homozygous; HE, heterozygous; WT, wild type.

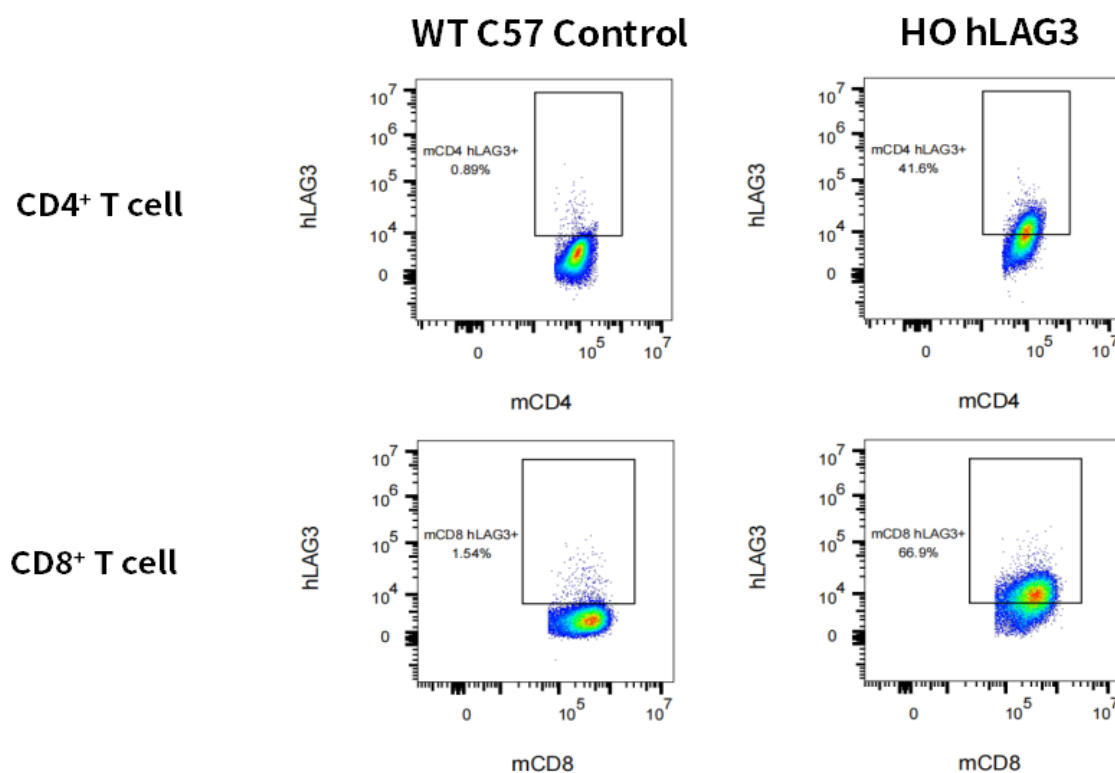


Fig2. Detection of hLAG3 expression on T cells in hLAG3 KI mice.

Note. Splenocytes from C57BL/6 and homozygous hLAG3 mice were stimulated with anti-mCD3 antibody in vitro.

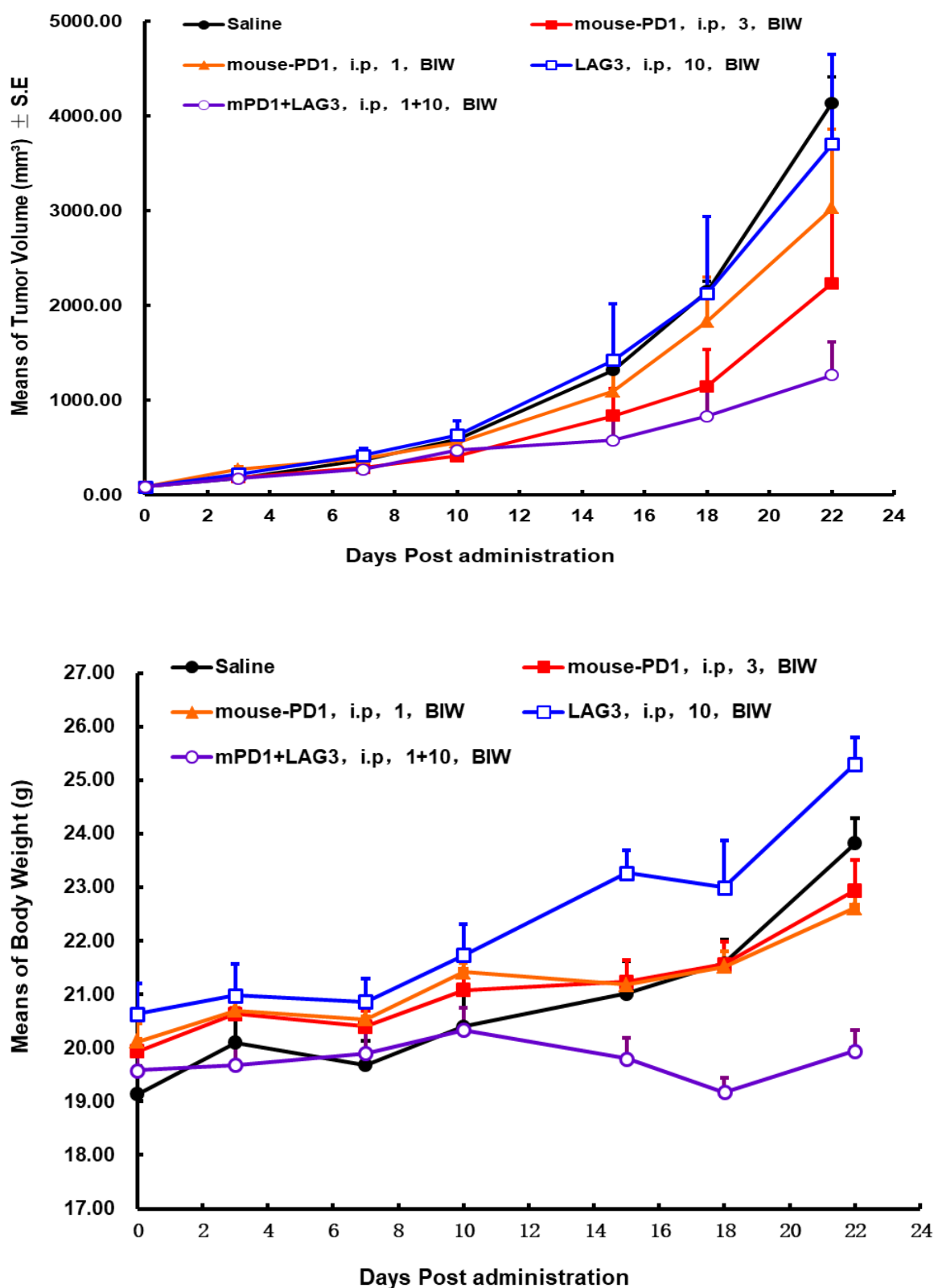


Fig3. In vivo validation of anti-tumor efficacy in a MC38 tumor-bearing model of humanized LAG3 mouse.

Homozygous humanized LAG3 mice were inoculated with MC38 colon cancer cell lines. After the tumors grew to 50 mm³, the animals were randomly assigned into different groups (n=5). The results showed that the anti-tumor effect was not observed when the antibody targeting human LAG3 was administered alone. However, a significant anti-tumor effect was observed when the antibody targeting human LAG3 was administered together with the anti-PD1 antibody.

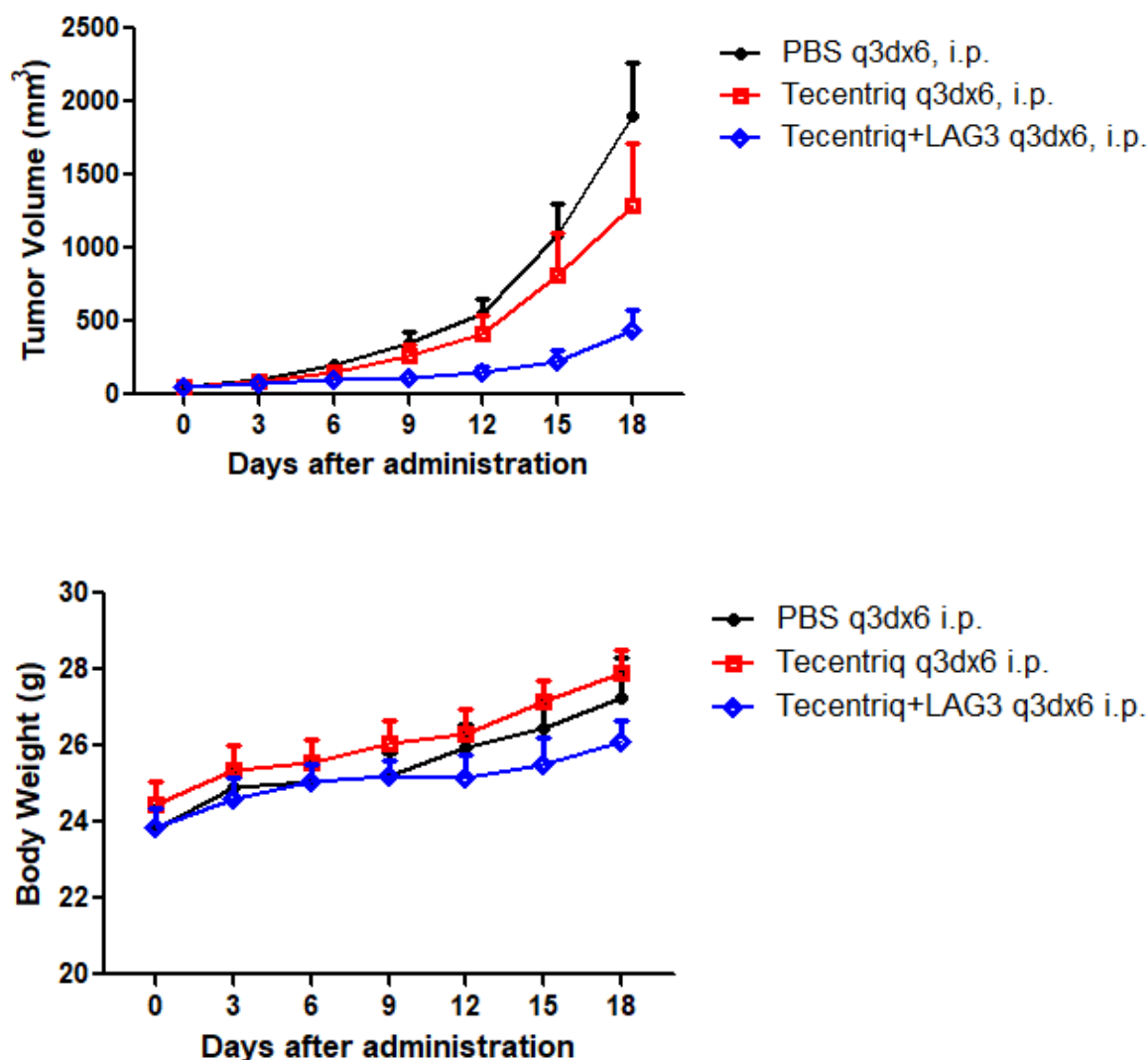


Fig4. In vivo validation of anti-tumor efficacy in a MC38 tumorbearing model of humanized LAG3 mouse.

Homozygous humanized LAG3 mice were inoculated with MC38 colon cancer cell lines. After the tumors grew to 70-80 mm³, the animals were randomly assigned into different groups (n=8). The results showed a significant anti-tumor effect was observed when the antibody targeting human LAG3 was administered together with Tencetrig.