

hOX40

Nomenclature	C57BL/6Smoc- <i>Tnfrsf4</i> ^{em1(hTNFRSF4)Smoc}
Cat. NO.	NM-HU-00041
Strain State	Embryo cryopreservation

Gene Summary

Gene Symbol Tnfrsf4	Synonyms	Ox40; ACT35; CD134; Ly-70; Txgp1; TXGP1L
	NCBI ID	22163
	MGI ID	104512
	Ensembl ID	ENSMUSG00000029075
	Human Ortholog	TNFRSF4

Model Description

The endogenous mouse *Tnfrsf4*(Ox40) gene was replaced by human TNFRSF4(OX40) gene. While hOX40(2)(Stock No.NM-HU-00078) mice function similarly to hOX40 mice,for more detailed information please contact our technical advisor.

Research Application: Immunotherapy,cancer research,drug screening

*Literature published using this strain should indicate: hOX40 mice (Cat. NO. NM-HU-00041) were purchased from Shanghai Model Organisms Center, Inc..

Validation Data

- Flow cytometry (FACS) analysis data of lymph node T-cells collected from humanized OX40 mice

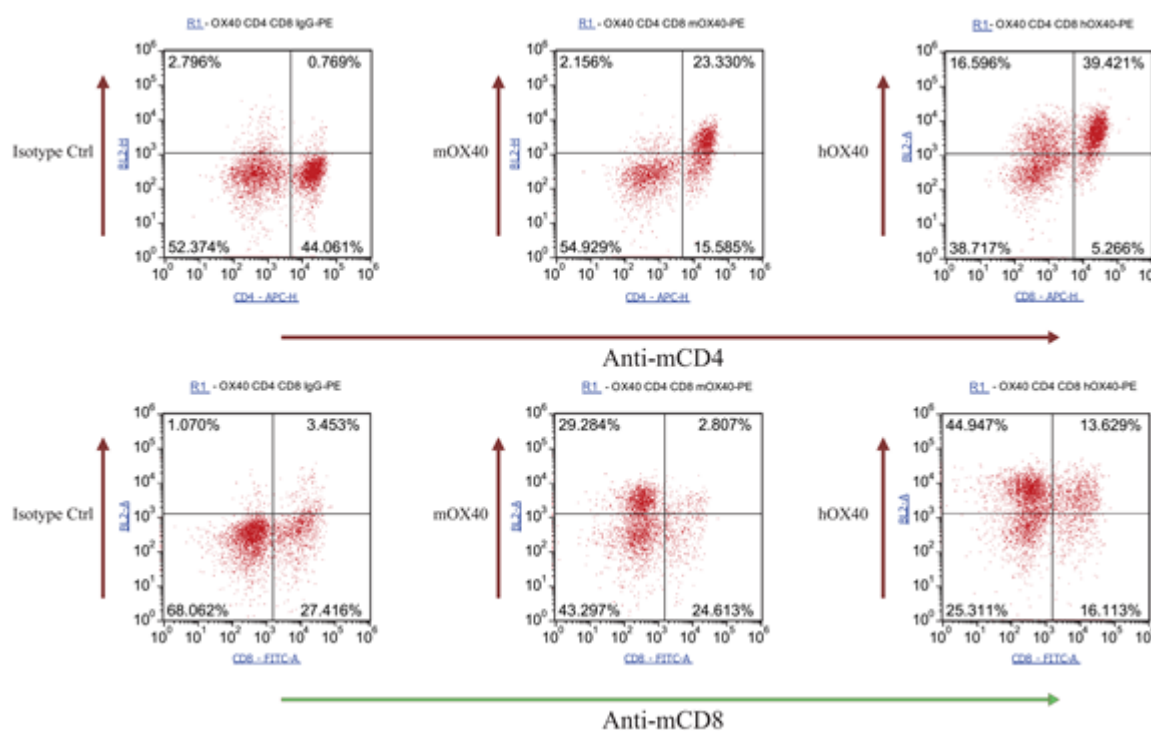


Fig 1. Expression of OX40 in the spleen lymphocytes of humanized OX40 mice is detected by FACS.

The spleen lymphocytes of heterozygous humanized OX40 mice were activated by anti-CD3 and anti-CD28 for 48 hours, and then collected for staining. Along with a group undergoing no stimulation, the expression of murine and human OX40 was detected by FACS. The results showed that the active expression of human OX40 can be detected in both activated CD4+ and CD8+ T lymphocytes collected from heterozygous humanized OX40 mice, and the expression trend of human OX40 and murine OX40 was similar.

- In vivo validation in a MC38 tumor-bearing model of humanized OX40 mouse.

◦ Case study 1

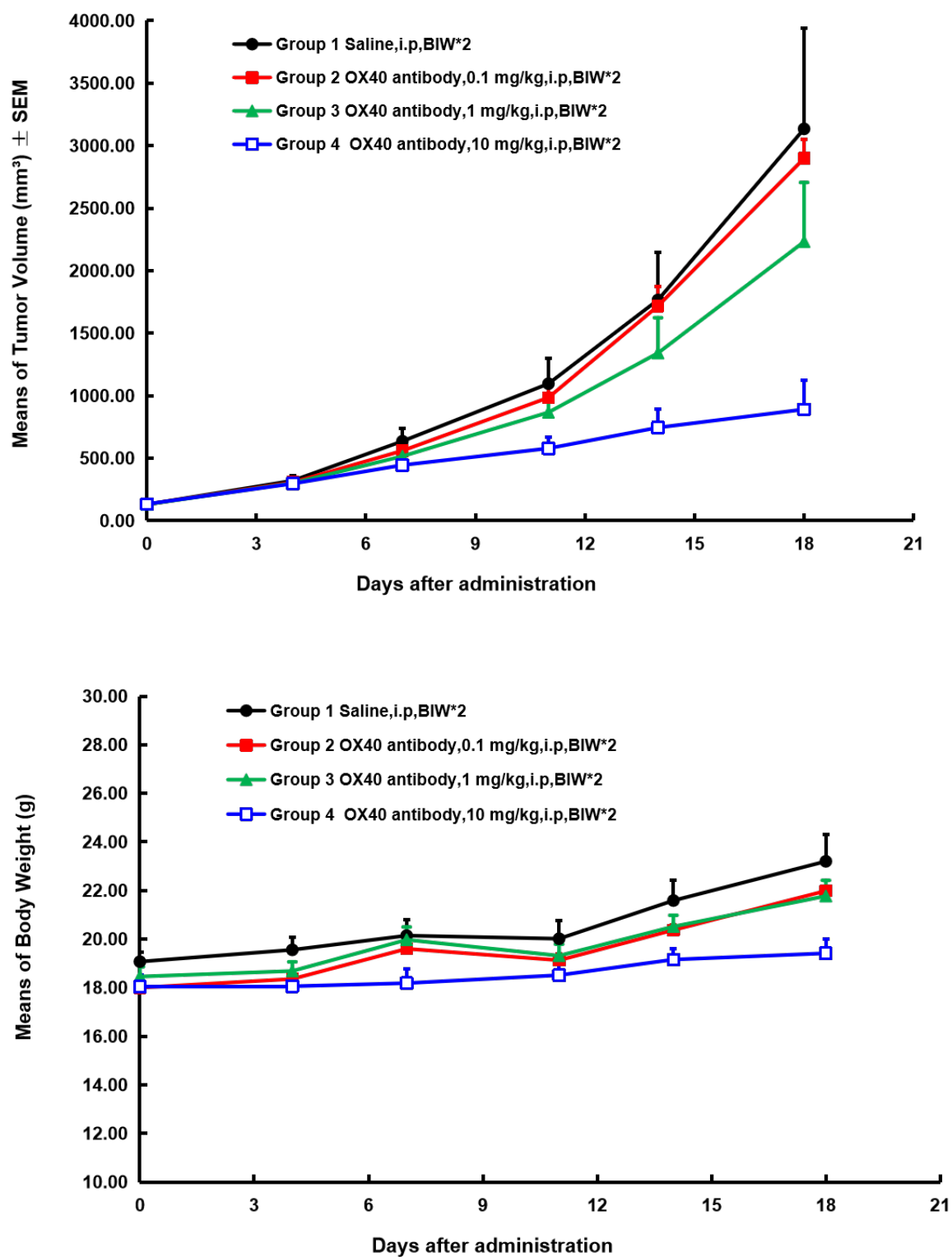


Fig 2. OX40 antibody showed dose-dependent anti-tumor activity in human OX40 knock-in mice bearing MC38 tumors. The OX40 antibody was obtained from Innoventbio.

◦ Case study 2

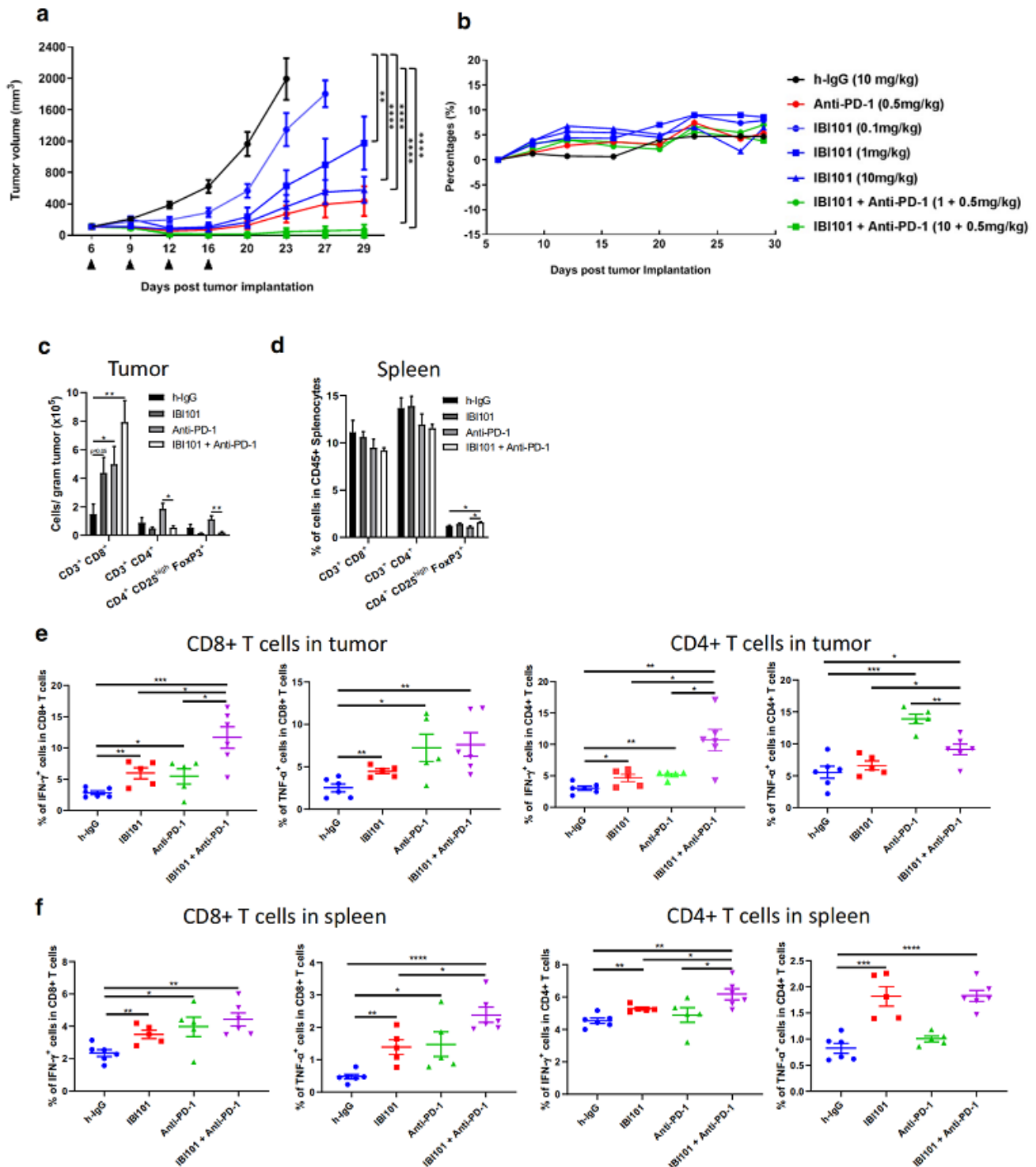


Fig 3 IBI101 showed dose-dependent anti-tumor activity and enhanced tumor-specific CD8⁺ T cell response in human OX40 knock-in mice bearing MC38 tumors. a Tumor growth curve of mice treated with different doses of IBI101 alone or in combination with anti-mouse PD-1 antibody. Different doses of IBI101 and anti-mouse PD-1 antibody were administrated as indicated by the arrow heads after MC38 cells implantation. b Animal body weights were measured during the time course of the experiment. c Mice were injected with h-IgG (10 mg/kg), IBI101 (10 mg/kg), anti-PD-1 (0.5 mg/kg) alone or IBI101 (10 mg/kg)+anti-PD-1 (0.5 mg/kg) at day 10 and 14 post tumor cell implantation. At day 17, tumor and spleen were collected and analyzed by flow cytometry for the absolute counts of the indicated cell subsets in tumor and d proportions of

indicated cell subsets in CD45⁺ splenocytes. Flow cytometry results showing the proportions of cytokine-secreting cancer-specific CD8⁺ and CD4⁺ T cells from tumor (e) and spleen (f) (n≥5) (In collaboration with Innoventbio)
