hPD-L1

Nomenclature	C57BL/6Smoc-*Cd274*$^{em1(hPD\text{-}L1)Smoc}$
Cat. NO.	NM-HU-00062
Strain State	Repository Live

Gene Summary

Gene Symbol **Cd274**	**Synonyms**	B7h1; Pdl1; Pdcd1l1; Pdcd1lg1; A530045L16Rik
	NCBI ID	60533
	MGI ID	1926446
	Ensembl ID	ENSMUSG00000016496
	Human Ortholog	CD274

Model Description

The endogenous mouse Cd274(also known as PD-L1) gene was replaced by human PD-L1 gene . While hPD-L1(2)(Stock No.NM-HU-190039) mice function similarly to hPD-L1 mice,for more detailed information please contact our technical advisor.

Research Application: Immunotherapy,cancer research,drug screening

*Literature published using this strain should indicate: hPD-L1 mice (Cat. NO. NM-HU-00062) were purchased from Shanghai Model Organisms Center, Inc..

Validation Data

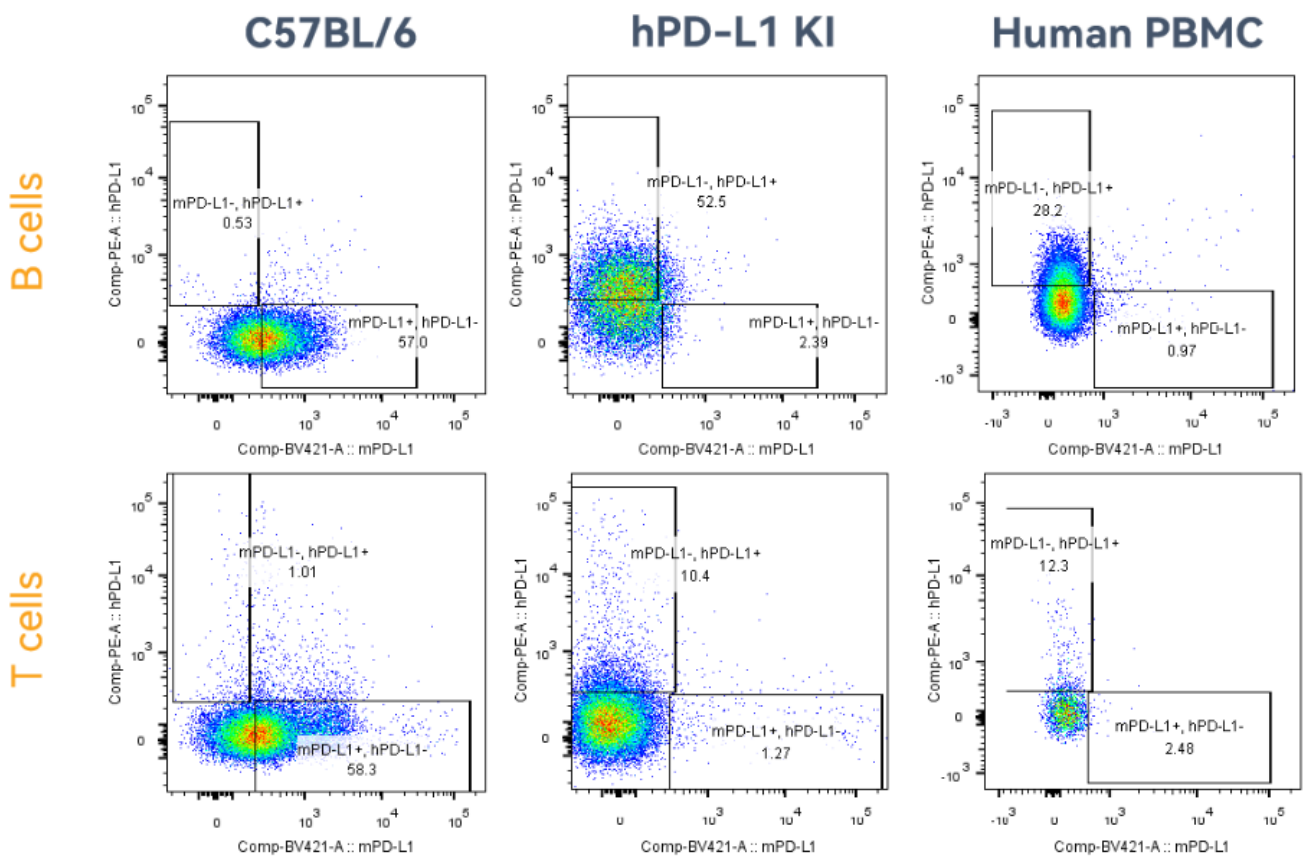

Fig1.**Expression of PD-L1 in the spleen lymphocytes collected from homozygous humanized PD-L1 mice and wild-type mice is detected by FACS.** The results showed that the expression of human PD-L1 can be detected in both T cells and B cells collected from the spleen of homozygous humanized PD-L1 mice. (Completed in collaboration with CrownBio)

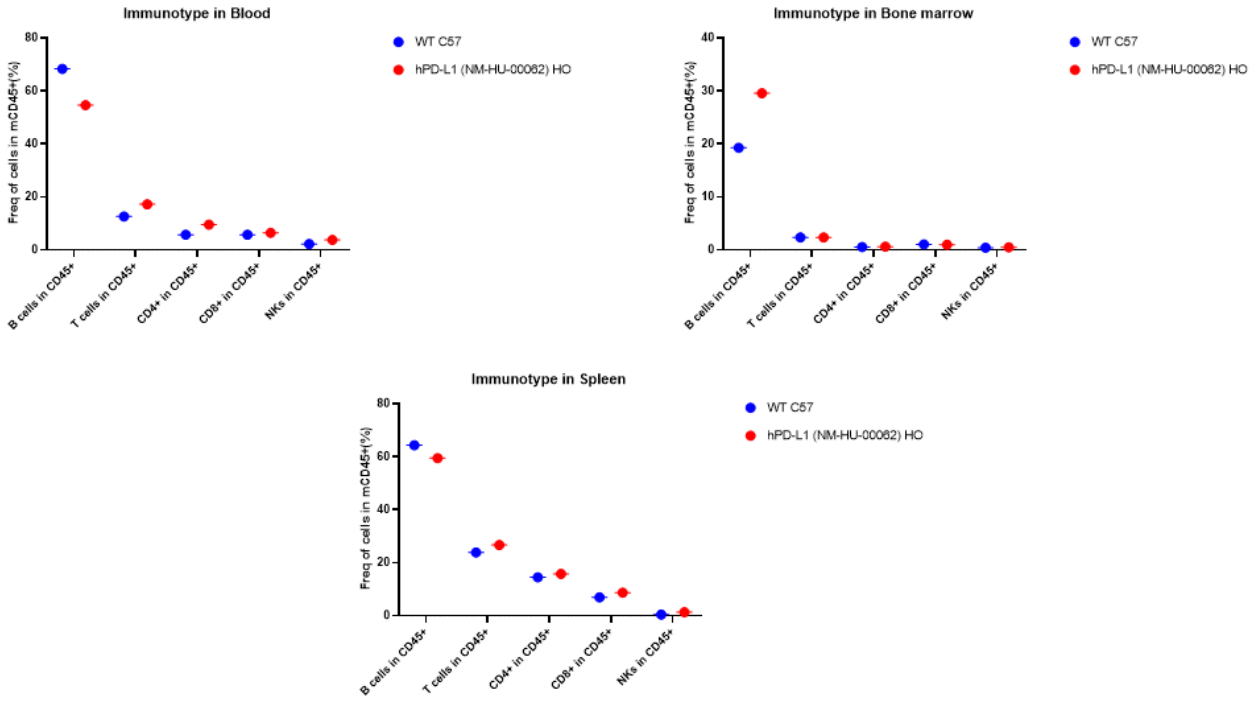

Fig2. Immunotype in blood , spleen and bone marrow in hPD-L1 mice.

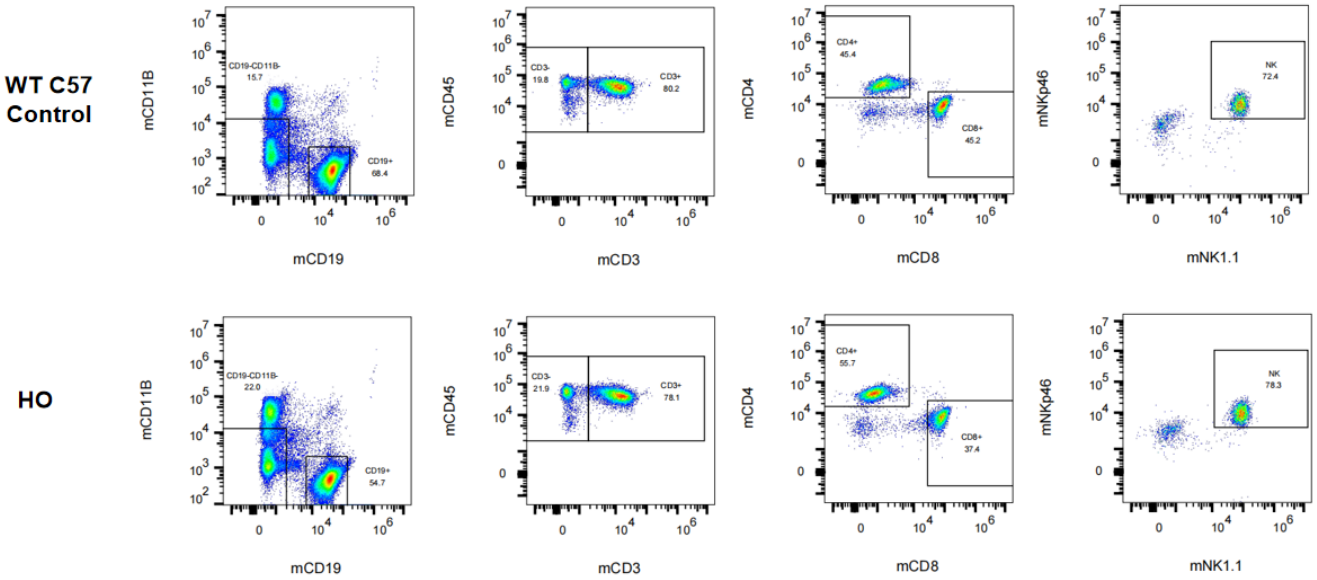

Fig3. Immunotype in blood in hPD-L1 mice.

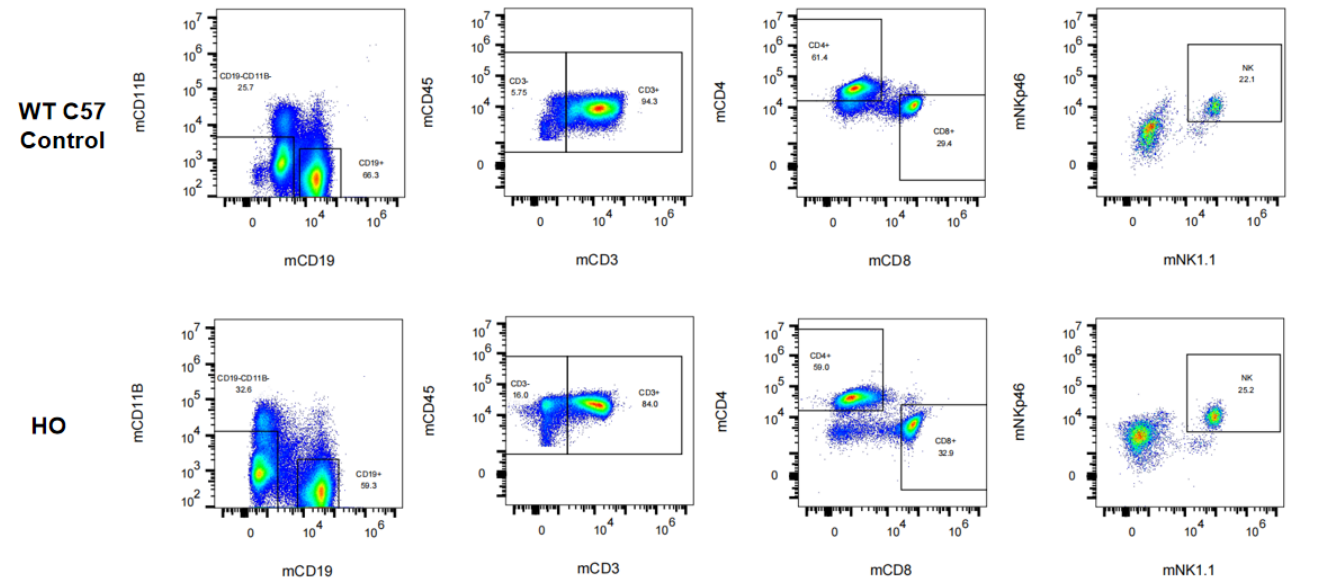

Fig4. Immunotype in spleen in hPD-L1 mice.

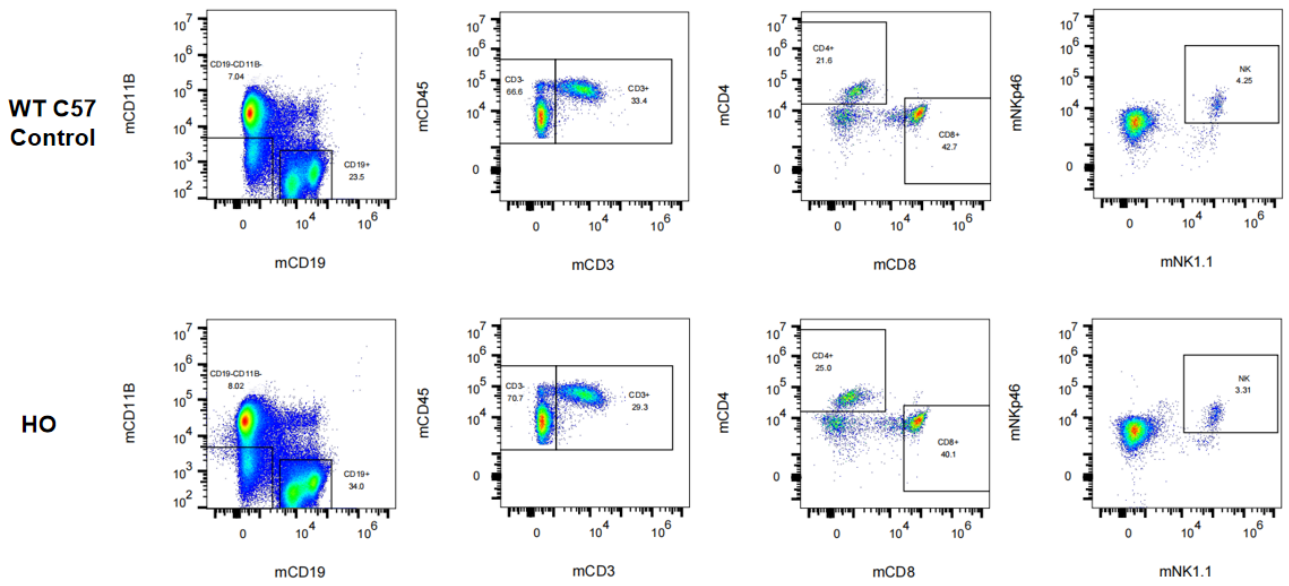

Fig5. Immunotype in bone marrow in hPD-L1 mice.

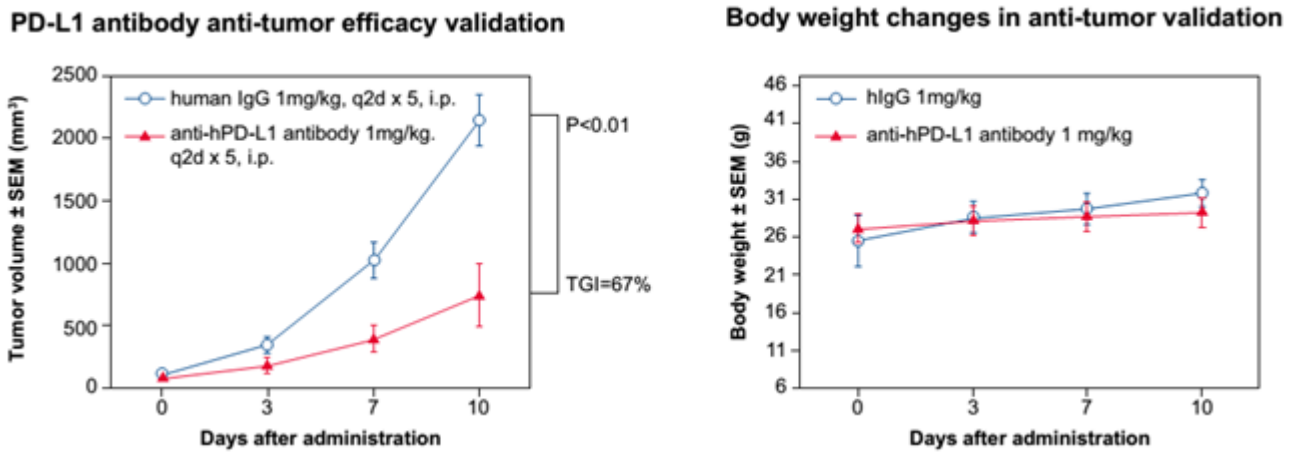

Fig6. *In vivo* **validation of anti-tumor efficacy in a MC38 tumor-bearing model of humanized PD-L1 mice.** Homozygous humanized PD-L1 mice were inoculated with MC38 colon cancer cells (expressing human PDL1 rather than murine PD-L1). After the tumors grew to 100 mm3, the animals were randomly assigned into a control group and a treatment group (n=5). The results showed: The antibodies targeting human PD-L1 were associated with a very significant anti-tumor effect (TGI: tumor growth inhibition, $p < 0.001$), demonstrating that the humanized PD-L1 mice are a good in vivo model for validating the efficacy of antibodies targeting human PD-L1.

Publications

Distinct contribution of PD-L1 suppression by spatial expression of PD-L1 on tumor and non-tumor cells

References: Cellular & Molecular Immunology