

MHCII/B2m-KO(M-NSG)

在M-NSG小鼠背景上将从基因H2-Ab1的exon 2上游到基因H2-Ea-ps的exon 1上游的所有序列进行敲除以及敲除B2m，获得H2-Ab1、H2-Aa、H2-Eb1、H2-Eb2、H2-Ea-ps和B2m基因敲除小鼠模型。这些MHC I类和II类分子缺陷型小鼠细胞表面缺乏II-A类和II

Nomenclature	NOD.Cg- <i>Prkdc</i> ^{scid} <i>Il2rg</i> ^{em1} <i>H2-Ab1</i> ^{em1} <i>H2-Aa</i> ^{em1} <i>H2-Eb1</i> ^{em1} <i>H2-Eb2</i> ^{em1} <i>H2-Ea-ps</i> ^{em1} <i>B2m</i> ^{em1Smoc}
Cat. NO.	NM-NSG-014
Strain State	Repository Live

Gene Summary

Model Description

在M-NSG小鼠背景上将从基因H2-Ab1的exon 2上游到基因H2-Ea-ps的exon 1上游的所有序列进行敲除以及敲除B2m，获得H2-Ab1、H2-Aa、H2-Eb1、H2-Eb2、H2-Ea-ps和B2m基因敲除小鼠模型。这些MHC I类和II类分子缺陷型小鼠细胞表面缺乏II-A类和II-E类MHC蛋白的表达以及缺乏MHC I类分子的B2m。

Research Application: 免疫缺陷，免疫系统，移植研究

*Literature published using this strain should indicate: MHCII/B2m-KO(M-NSG) mice (Cat. NO. NM-NSG-014) were purchased from Shanghai Model Organisms Center, Inc..

Validation Data

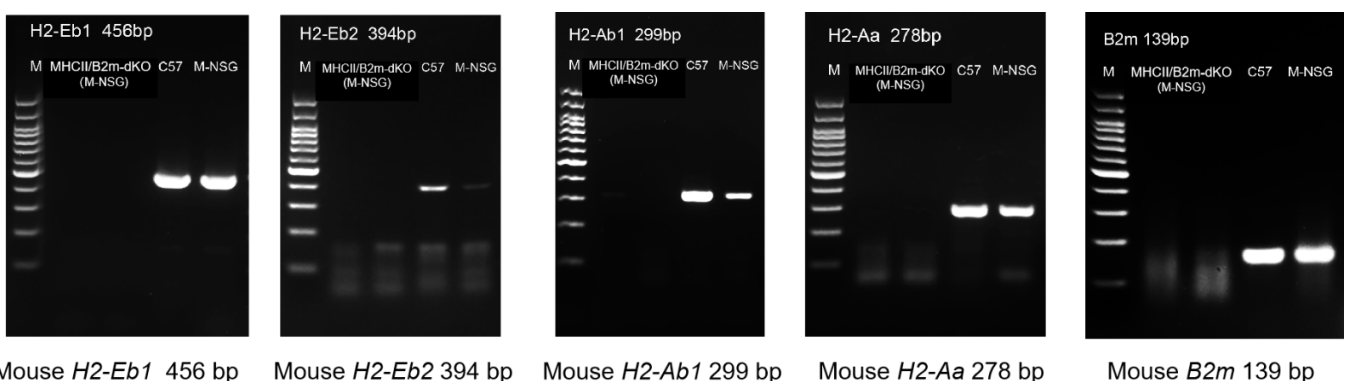


Fig1. Detection of *MHCII* and *B2m* expression in spleen in MHCII/B2M-dKO (M-NSG) mice by RT-PCR.

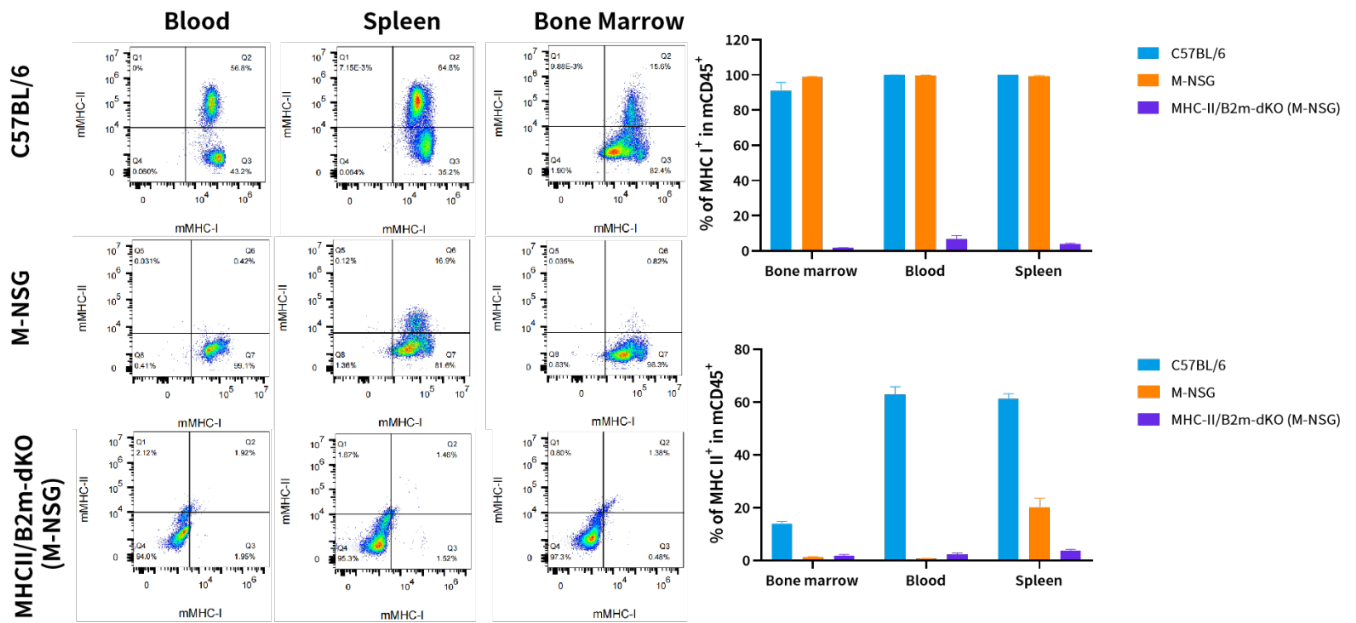


Fig2. Expression characterization of mouse MHC I and MHC II in MHCII/B2M-dKO (M-NSG) mice.

Parameter	Units	MHCII/B2m-dKO(M-NSG) Male, 8-10 weeks; n=10	MHCII/B2m-dKO(M-NSG) Female, 8-10 weeks; n=10
WBC	10 ³ /uL	2.37±0.35	3.63±0.43
RBC	10 ⁶ /UI	10.38±0.17	10.36±0.14
HGB	g/dL	17.09±0.20	16.78±0.19
HCT	%	54.93±0.49	55.07±0.56
MCV	fL	53.03±0.57	53.19±0.24
MCH	pg	16.48±0.11	16.21±0.07
MCHC	g/dL	31.12±0.16	30.47±0.11
PLT	10 ³ /uL	1864.30±51.52	2441.30±103.09
RDW-SD	fL	30.17±0.39	32.43±0.90
RDW-CV	%	18.35±0.23	19.27±0.28
PDW	fL	7.02±0.09	7.37±0.11
MPV	fL	6.81±0.08	6.94±0.08
P-LCR	%	5.36±0.49	5.93±0.41
PCT	%	1.27±0.04	1.70±0.07
NEUT#	10 ³ /uL	1.37±0.21	2.35±0.27
LYMPH#	10 ³ /uL	0.71±0.09	0.92±0.12
MONO#	10 ³ /uL	0.18±0.06	0.29±0.07
EO#	10 ³ /uL	0.12±0.01	0.07±0.02
BASO#	10 ³ /uL	0.00±0.00	0.00±0.00
NEUT%	%	57.54±1.76	65.38±2.13
LYMPH%	%	30.65±2.07	25.68±1.85
MONO%	%	6.30±0.93	7.26±1.09
EO%(%)	%	5.51±0.62	1.66±0.36
BASO%	%	0.00±0.00	0.02±0.02
RET#	10 ⁶ /uL	0.52±0.02	0.53±0.03
RET%	%	5.03±0.22	5.12±0.28
LFR(%)	%	40.25±0.73	40.51±0.76
MFR(%)	%	12.84±0.17	12.32±0.25
HFR(%)	%	46.91±0.72	47.17±0.80
IRF(%)	%	59.75±0.73	59.49±0.76

Fig3. Hematology of MHCII/B2M-dKO (M-NSG) mice.

Parameter	Units	MHCII/B2m-dKO(M-NSG) Male, 8-10 weeks; n=10	MHCII/B2m-dKO(M-NSG) Female, 8-10 weeks; n=10
TP	g/L	64.28±1.20	66.29±1.45
ALB	g/L	18.68±0.75	21.62±0.51
ALP	U/L	139.11±10.98	257.61±17.84
ALT	U/L	56.10±6.63	44.07±2.63
AST	U/L	194.10±18.12	218.28±18.11
T-BIL	μmol/L	1.77±0.52	1.12±0.11
D-BIL	μmol/L	2.25±0.51	1.43±0.20
CHE	U/L	4846.95±369.16	9726.19±347.64
CRE	μmol/L	30.48±2.03	37.08±2.53
BUN	mmol/L	11.73±0.67	12.78±0.59
UA	μmol/L	167.67±7.25	134.05±8.76
TCHO	mmol/L	3.98±0.13	3.00±0.16
TG	mmol/L	1.68±0.22	1.45±0.15
HDL	mmol/L	1.96±0.07	1.30±0.07
LDL	mmol/L	0.21±0.01	0.27±0.03
NEFA	mmol/L	1.53±0.10	1.36±0.09
LDH	U/L	1496.51±78.28	1059.00±63.05
CK	U/L	1367.12±230.94	2323.76±365.74
Hcy	μmol/L	3.81±0.14	4.83±0.09
GLU	mmol/L	6.09±0.40	6.03±0.41
Ca	mmol/L	2.70±0.05	2.72±0.04
IP	mmol/L	3.54±0.14	3.73±0.18
Fe	μmol/L	104.84±3.37	103.47±4.94

Fig4. Blood biochemistry of MHCII/B2M-dKO (M-NSG) mice.

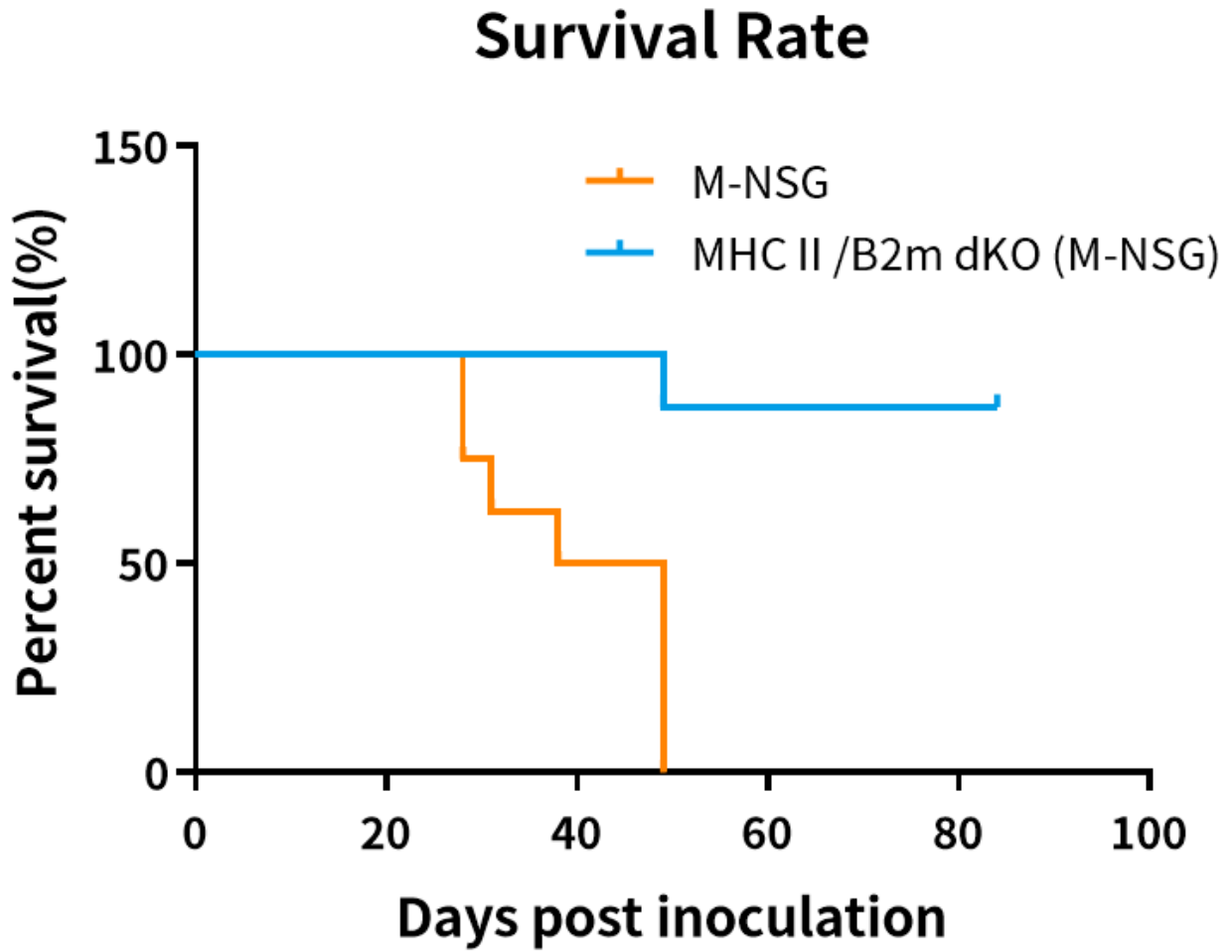


Fig5. Survival rate of huPBMC-MHCII/B2M-dKO (M-NSG) mice.

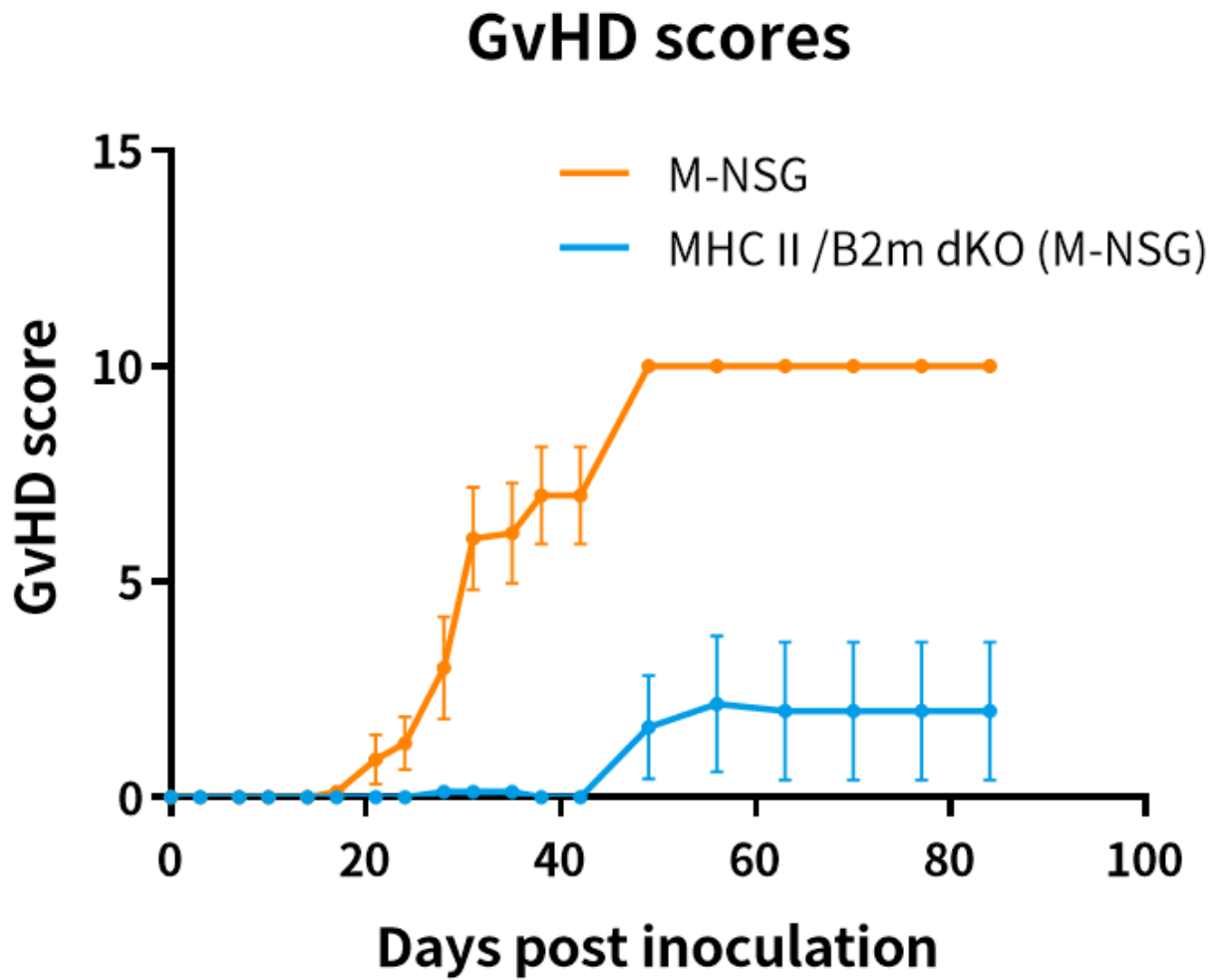


Fig6. GvHD scores of huPBMC-MHCII/B2M-dKO (M-NSG) mice.

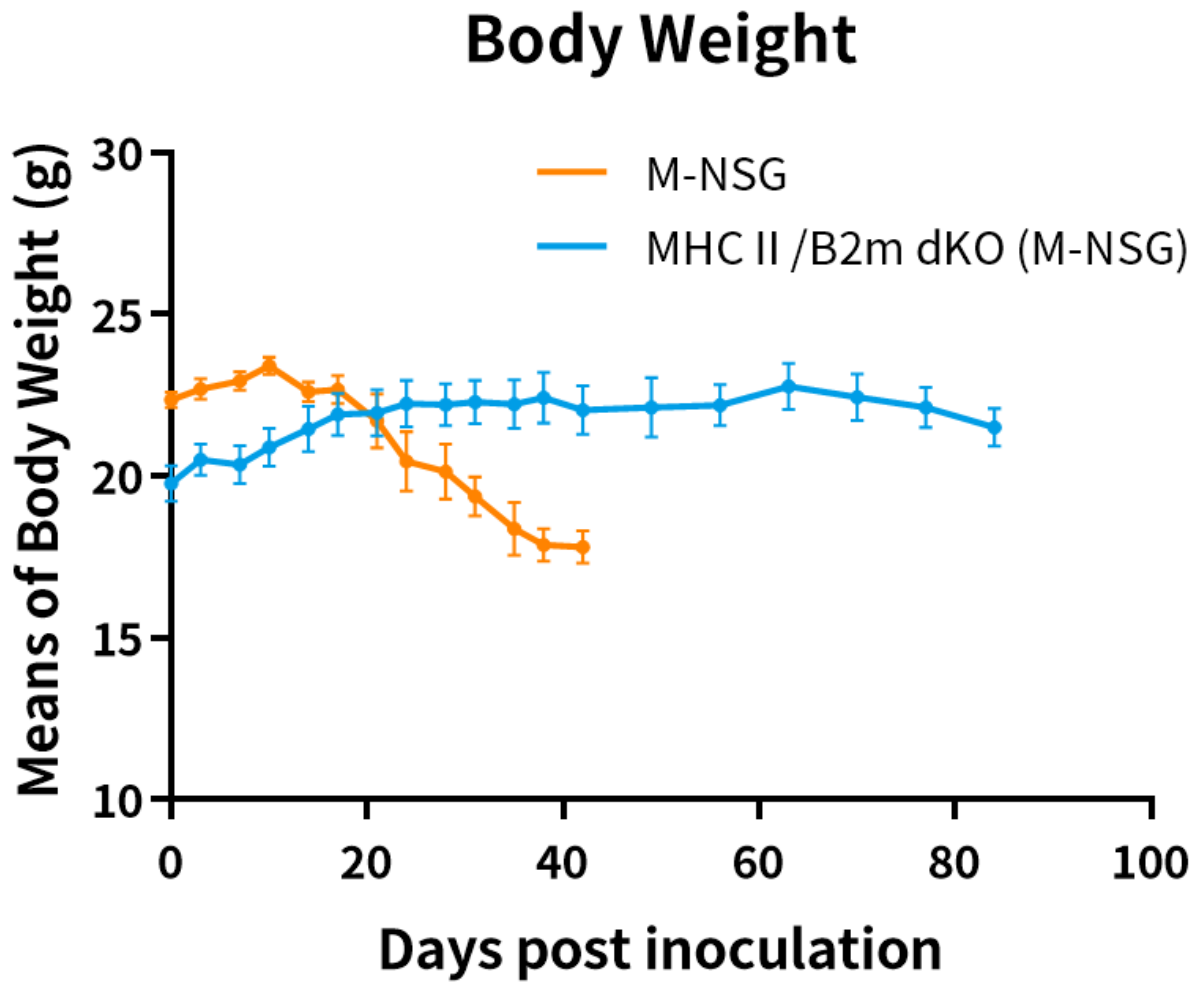


Fig6. Body weight growth curve of huPBMC-MHCII/B2M-dKO (M-NSG) mice.