

# hCD3EDG/hCD19/hBCMA

品系全名	C57BL/6JSmc- <i>Tnfrsf17</i> <sup>tm1(hBCMA)</sup> <i>Cd3e</i> <sup>tm1(hCD3E)</sup> <i>Cd3d</i> <sup>tm1(hCD3D)</sup> <i>Cd3g</i> <sup>tm1(hCD3G)</sup> <i>Cd19</i> <sup>tm1(hCD19)</sup> Smoc
目录号	NM-XA-242443
品系状态	活体

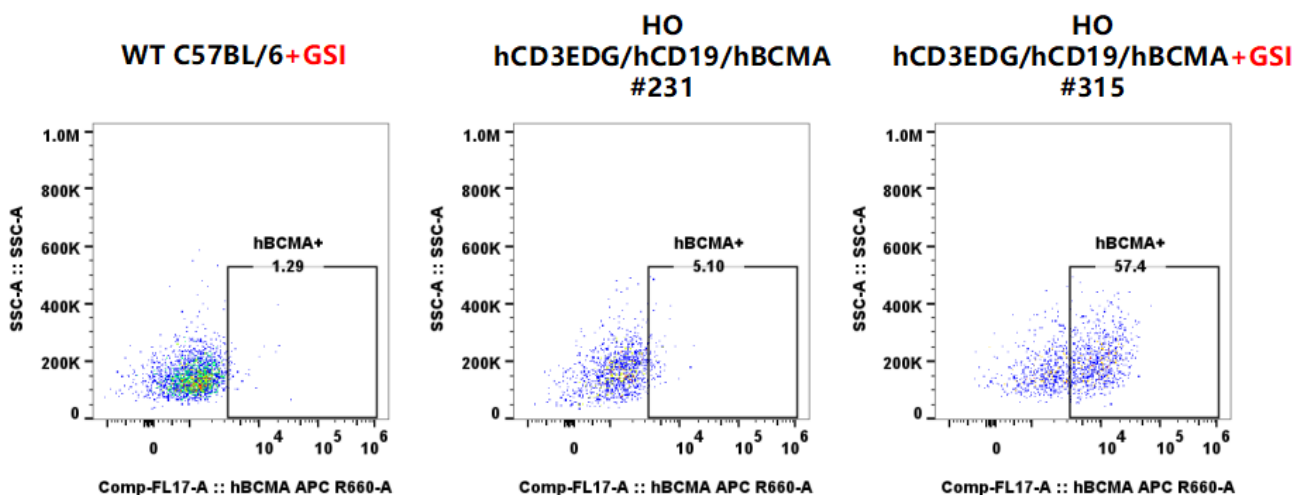
## 基因信息

## 品系描述

The hCD3EDG/hCD19(NM-HU-220109) was crossed with hBCMA(NM-HU-200228) to generate hBCMA/hCD3EDG/hCD19 mice.

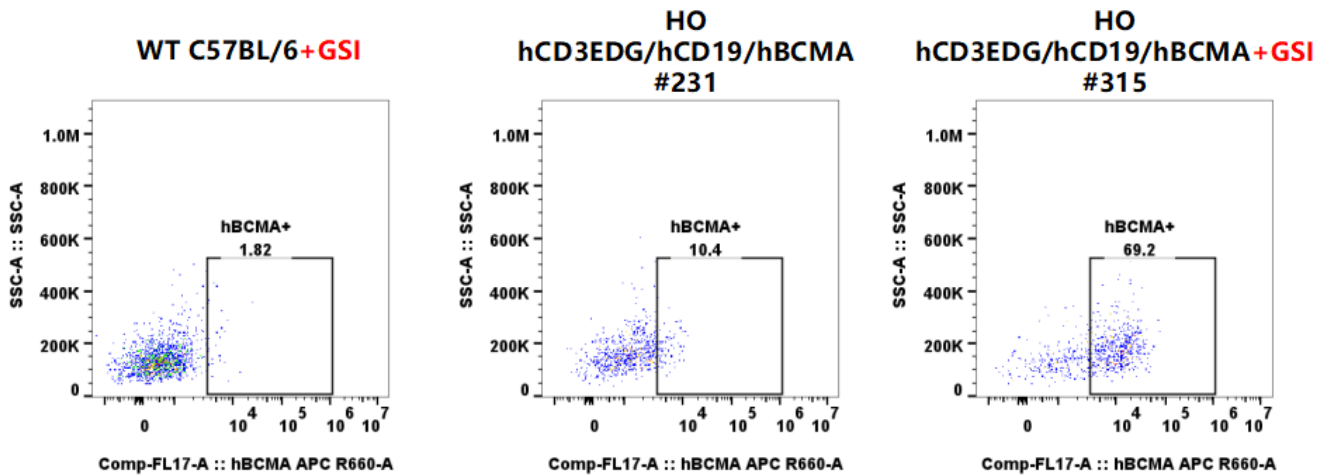
\*使用本品系发表的文献需注明: hCD3EDG/hCD19/hBCMA mice (Cat. NO. NM-XA-242443) were purchased from Shanghai Model Organisms Center, Inc..

## 验证数据



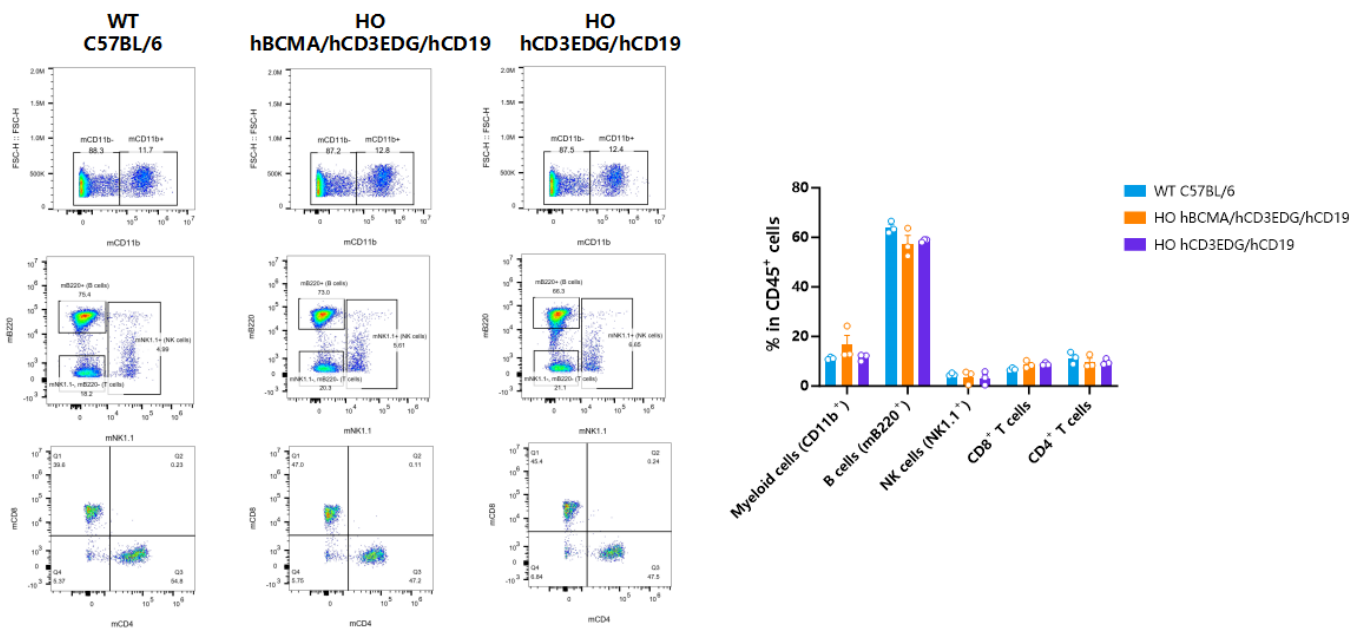
**Fig.1 Expression analysis of hBCMA in spleen of hCD3EDG/hCD19/hBCMA humanized mice.**

Leukocytes were collected from homozygous hCD3EDG/hCD19/hBCMA mice that had been treated with or without GSI ( $\gamma$ -secretase inhibitor) in vivo, and analyzed by flow cytometry with anti-hBCMA. hBCMA was exclusively detectable in hBCMA humanized mice but not in wild-type mice.



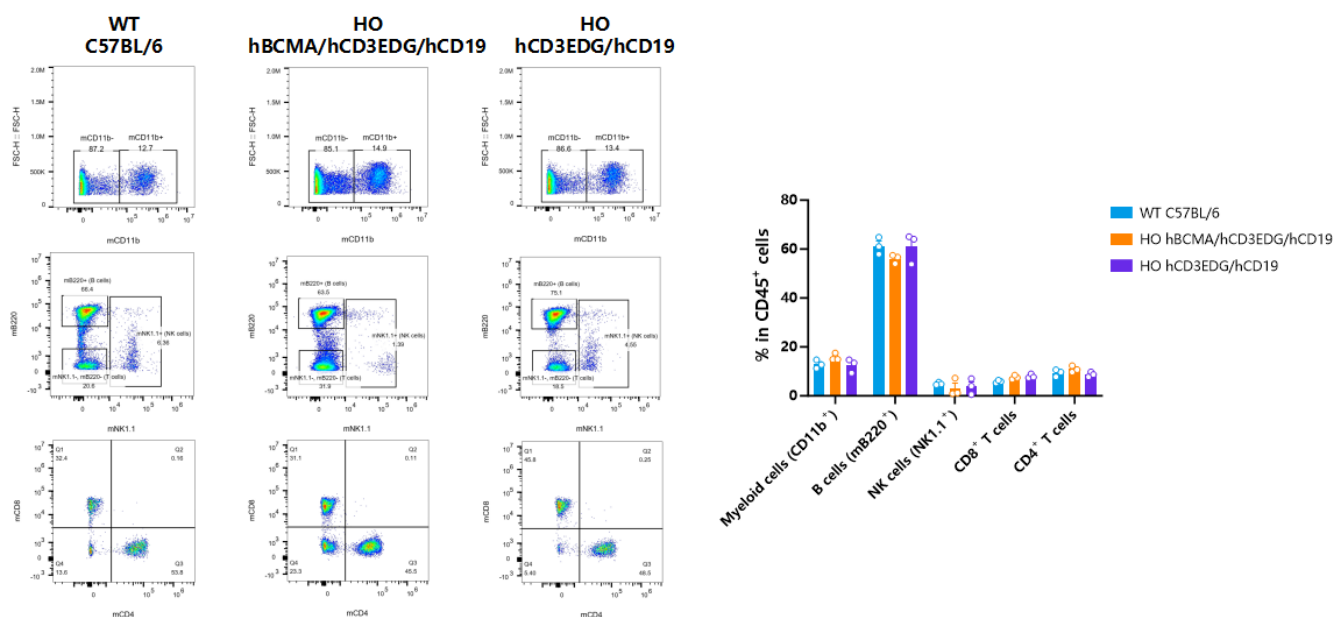
**Fig.2 Expression analysis of hBCMA in spleen of hCD3EDG/hCD19/hBCMA humanized mice.**

Leukocytes were collected from homozygous hCD3EDG/hCD19/hBCMA mice, treated with or without 1  $\mu$ M GSI ( $\gamma$ -secretase inhibitor) in vitro, and analyzed by flow cytometry with anti-hBCMA. hBCMA was exclusively detectable in hBCMA humanized mice but not in wild-type mice.



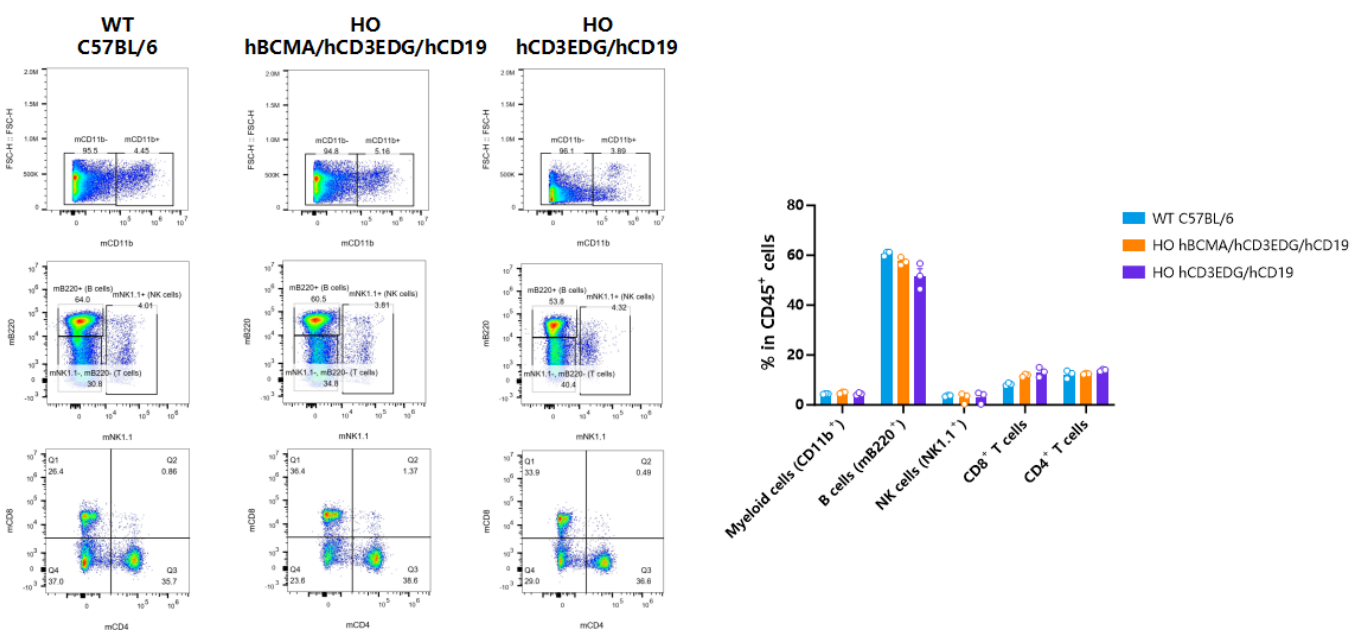
**Fig.3 Detection of immune cell subpopulations in the blood of 7-8-week-old female mice by FACS (n=3 in all groups).**

Abbr. WT, wild type; HO, homozygous.



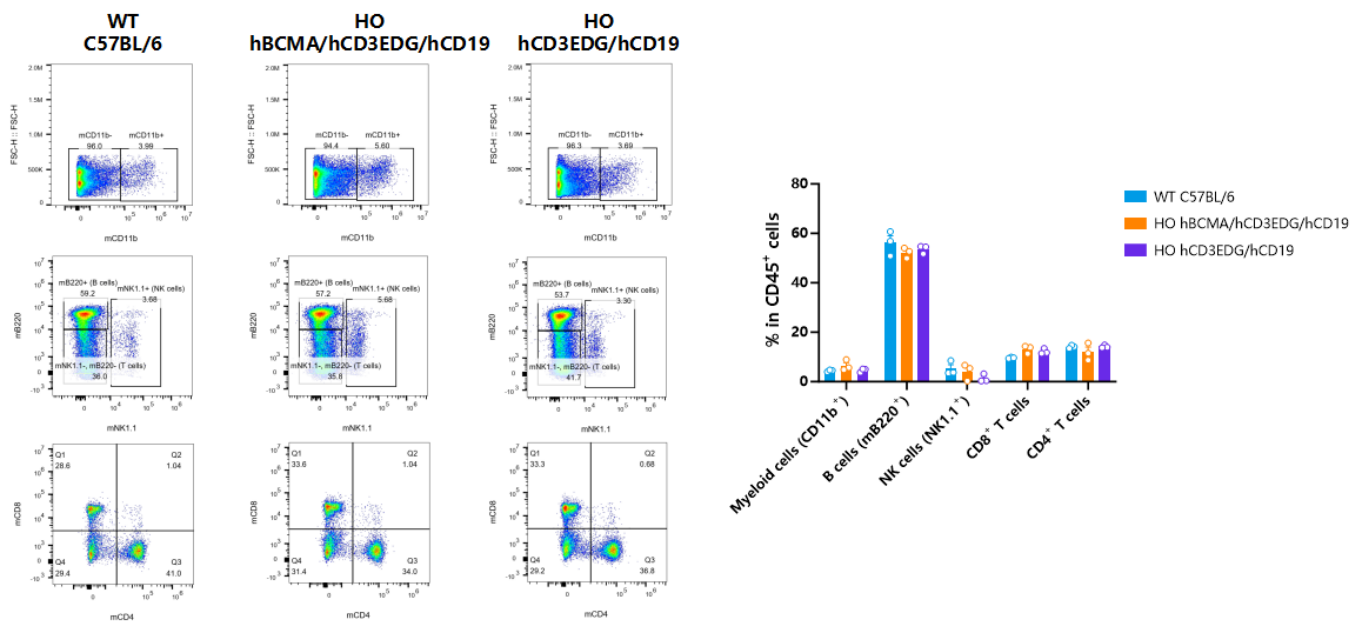
**Fig.4 Detection of immune cell subpopulations in the blood of 7-8-week-old male mice by FACS (n=3 in all groups).**

Abbr. WT, wild type; HO, homozygous.



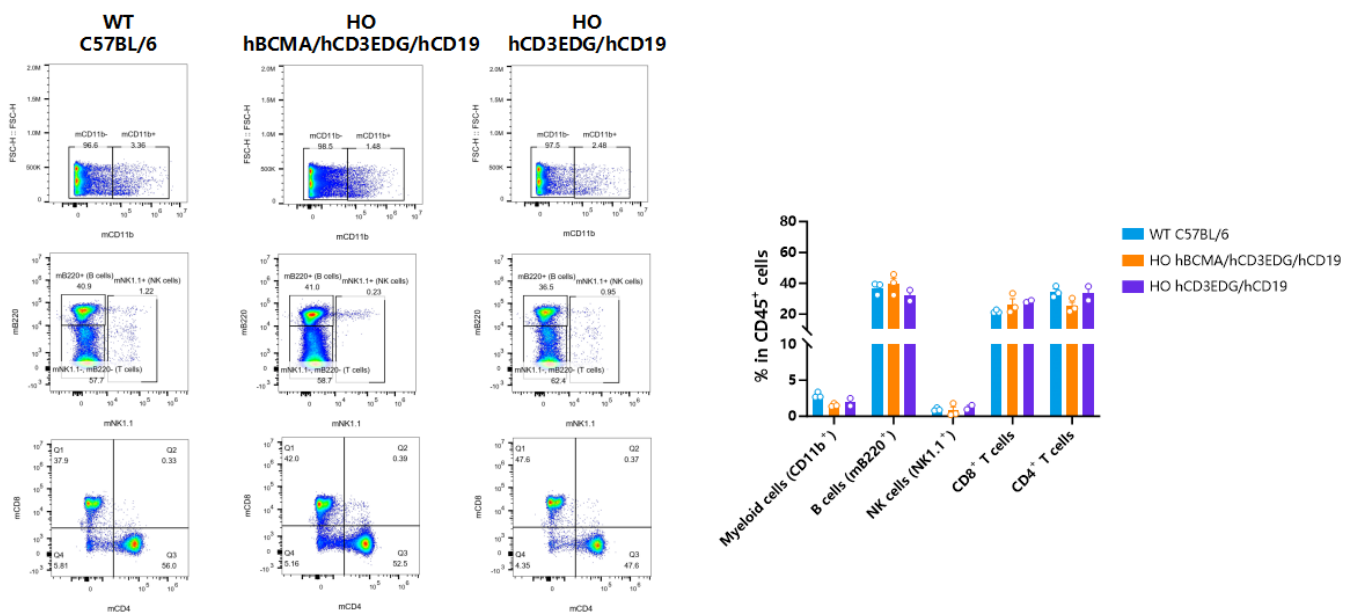
**Fig.5 Detection of immune cell subpopulations in the spleen of 7-8-week-old female mice by FACS (n=3 in all groups).**

Abbr. WT, wild type; HO, homozygous.



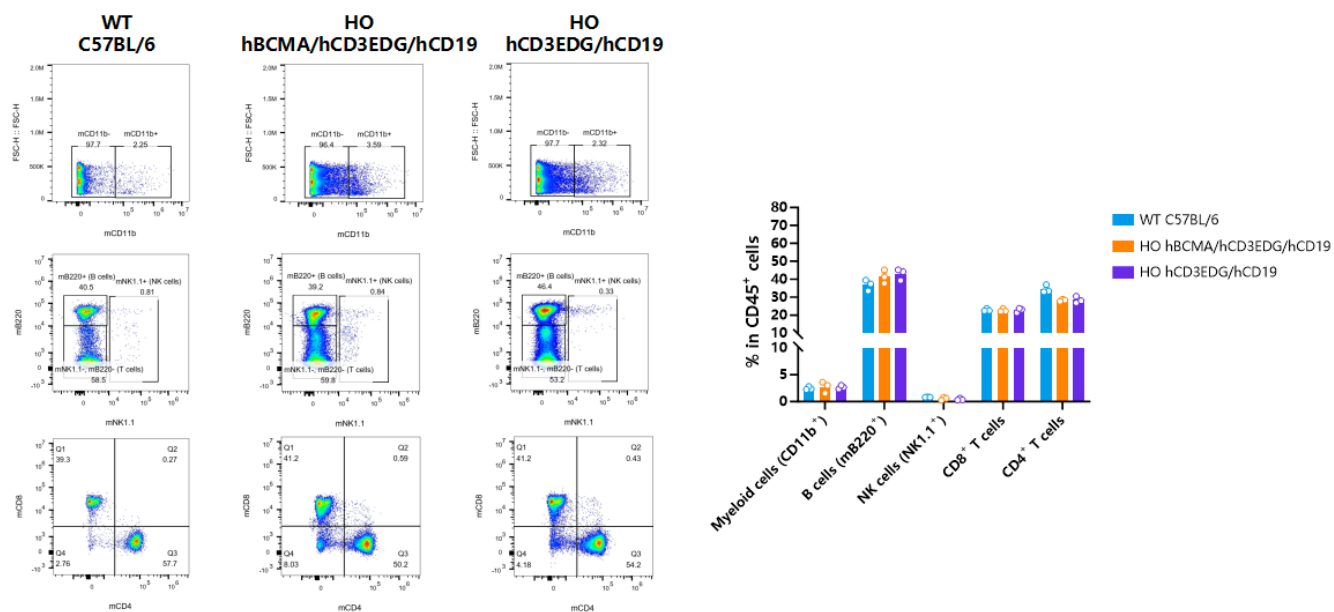
**Fig.6** Detection of immune cell subpopulations in the spleen of 7-8-week-old male mice by FACS (n=3 in all groups).

Abbr. WT, wild type; HO, homozygous.



**Fig.7** Detection of immune cell subpopulations in the lymph nodes of 7-8-week-old female mice by FACS (n=2 or 3).

Abbr. WT, wild type; HO, homozygous.



**Fig.8 Detection of immune cell subpopulations in the lymph nodes of 7-8-week-old male mice by FACS (n=3 in all groups).**

Abbr. WT, wild type; HO, homozygous.

Parameter	Parameter	WT C57BL/6 mice	HO hBCMA/hCD3EDG/hCD19 mice	HO hBCMA/hCD3EDG/hCD19 mice
		male, 10 weeks old, n=6	male, 9-10 weeks old, n=7	female, 9-10 weeks old, n=7
WBC(10 <sup>3</sup> /μL)	白细胞计数	8.10±0.37	4.34±0.51	5.70±0.53
RBC(10 <sup>6</sup> /μL)	红细胞计数	9.09±0.48	10.10±0.25	9.45±0.15
HGB(g/dL)	血红蛋白量	13.32±0.68	14.10±0.33	13.67±0.23
HCT(%)	红细胞比积	40.88±2.04	43.89±1.00	41.44±0.69
MCV(fL)	平均红细胞体积	45.00±0.29	43.47±0.26	43.87±0.37
MCH(pg)	平均红细胞血红蛋白量	14.65±0.03	14.00±0.04	14.47±0.18
MCHC(g/dL)	平均红细胞血红蛋白浓度	32.57±0.17	32.14±0.13	33.00±0.20
RDW-SD(fL)	红细胞分布宽度-标准差	22.90±0.69	20.60±0.28	20.80±0.79
RDW-CV(%)	红细胞分布宽度-变异系数	14.42±0.91	16.01±0.60	15.94±0.38
PDW(fL)	血小板分布宽度	6.37±0.28	6.44±0.18	6.43±0.07
MPV(fL)	平均血小板体积	7.18±0.05	6.74±0.06	6.71±0.06
P-LCR(%)	大血小板比率	4.55±0.39	3.36±0.34	3.73±0.34
PCT(%)	血小板比积	0.94±0.03	0.96±0.11	0.87±0.06
NRBC#(10 <sup>3</sup> /μL)	有核红细胞数	0.03±0.01	0.02±0.00	0.02±0.00
NRBC%(%)	有核红细胞百分率	0.43±0.13	0.44±0.14	0.36±0.06
NEUT#(10 <sup>3</sup> /μL)	中性粒细胞数	1.24±0.44	0.60±0.21	0.54±0.10
LYMPH#(10 <sup>3</sup> /μL)	淋巴细胞数	6.31±0.60	3.38±0.36	4.85±0.42
MONO#(10 <sup>3</sup> /μL)	单核细胞数	0.42±0.06	0.15±0.01	0.17±0.03
EO#(10 <sup>3</sup> /μL)	嗜酸性粒细胞数	0.13±0.02	0.21±0.07	0.13±0.02
BASO#(10 <sup>3</sup> /μL)	嗜碱性粒细胞数	0.01±0.00	0.00±0.00	0.00±0.00
NEUT%(%)	中性粒细胞百分率	15.47±5.55	12.47±2.82	9.24±0.93
LYMPH%(%)	淋巴细胞百分率	77.73±5.93	78.71±2.43	85.36±1.19
MONO%(%)	单核细胞百分率	5.13±0.68	3.56±0.41	2.94±0.26
EO%(%)	嗜酸性细胞百分率	1.60±0.24	5.26±1.92	2.41±0.34
BASO%(%)	嗜碱性细胞百分率	0.07±0.02	0.00±0.00	0.04±0.03
RET%(%)	网织红细胞百分率	4.86±0.53	4.04±0.14	4.57±0.29
RET#(10 <sup>6</sup> /μL)	网织红细胞数	0.43±0.04	0.41±0.01	0.43±0.03
IRF(%)	未成熟网织红细胞分数	67.48±1.83	61.94±1.01	60.61±1.37
LFR(%)	低荧光网织红细胞比率	32.52±1.83	38.06±1.01	39.39±1.37
MFR(%)	中荧光网织红细胞比率	14.92±0.75	13.51±0.33	14.33±0.38
HFR(%)	高荧光网织红细胞比率	52.57±2.47	48.43±1.22	46.29±1.56
RET-He(pg)	网织红细胞血红蛋白含量	17.05±0.16	16.39±0.08	17.11±0.23
IPF(%)	未成熟血小板比例	0.15±0.02	0.16±0.02	0.13±0.02
PLT-O(10 <sup>3</sup> /μL)	血小板计数-光学法	930.00±59.61	1004.57±106.90	963.71±76.54
PLT-F(10 <sup>3</sup> /μL)	血小板计数-光学法	1055.00±71.65	1202.43±135.93	1070.86±78.22
RBC-O(10 <sup>6</sup> /μL)	红细胞计数-光学法	8.80±0.66	9.42±0.31	8.63±0.20
PLT-I(10 <sup>3</sup> /μL)	血小板计数-电阻抗法	1314.50±42.59	1426.71±161.67	1293.43±89.49

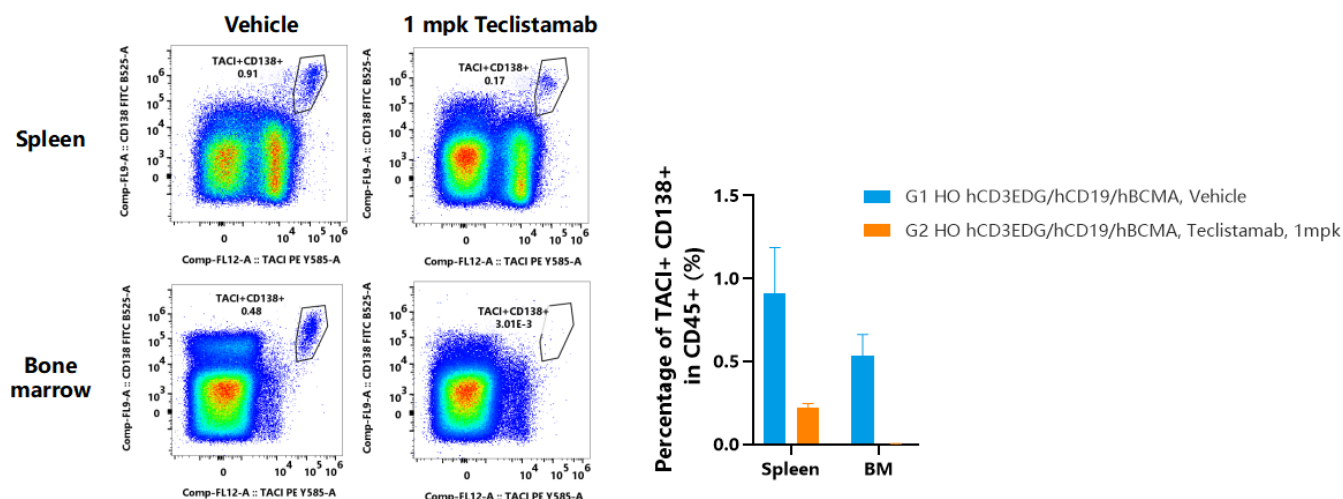
**Table 1. Blood routine examination of hBCMA/hCD3EDG/hCD19 knockin mice.** The baseline physiological parameters of hCD3EDG/hCD19/hBCMA mice showed no significant abnormalities.

Abbr. HO, homozygous; WT, wild type. Values are expressed as mean±SEM.

Parameter	Full name	Unit	WT C57BL/6, male, 11 weeks old, n=12	HO/HO/HO hBCMA/hCD3EDG/hCD19, male, 10-11 weeks old, n=8	HO/HO/HO hBCMA/hCD3EDG/hCD19, female, 11 weeks old, n=8
ALT	Alanine aminotransferase	U/L	38.44±7.31	35.11±3.12	31.07±1.67
AST	Aspartate aminotransferase	U/L	122.61±11.44	123.73±9.05	133.30±5.44
ALB	Albumin	g/L	22.27±0.33	21.56±0.58	25.35±0.44
UREA	Carbamide	mmol/L	9.51±0.22	8.47±0.40	9.38±0.34
CREA	Creatinine	μmol/L	11.52±0.88	13.60±0.57	12.40±0.91
GLU	Glucose	mmol/L	12.01±0.73	12.34±0.42	11.80±0.60
TG	Triglyceride	mmol/L	1.52±0.25	1.28±0.08	1.22±0.12
T-CHO	Total cholesterol	mmol/L	2.47±0.15	2.54±0.09	2.08±0.08

**Table 2. Biochemical test of serum from hBCMA/hCD3EDG/hCD19 knockin mice.**

Abbr. HO, homozygous; WT, wild type. Values are expressed as mean±SEM.



**Fig.9 *In vivo* efficacy study of teclistamab in HO hCD3EDG/hCD19/hBCMA mice.** Teclistamab were injected at day 0, 3, 5, and immune cells in the spleen and bone marrow of mice after therapy were measured by flow cytometry (n=4).

Teclistamab treatment resulted in a significant reduction of plasma cells in both the spleen and bone marrow of hCD3EDG/hCD19/hBCMA mice. Average±SEM.