

# BALB/c Nude

<b>Nomenclature</b>	BALB/cAnSmoc- <i>Foxn1</i> <sup>nu</sup> /Smoc
<b>Cat. NO.</b>	SM-014
<b>Strain State</b>	Repository Live

## Gene Summary

<b>Gene Symbol</b> <b>Foxn1</b>	<b>Synonyms</b>	nu; Whn; nude; Fkh19; Hfh11; HFH-11; D11Bhm185e
	<b>NCBI ID</b>	<a href="#">15218</a>
	<b>MGI ID</b>	<a href="#">102949</a>
	<b>Ensembl ID</b>	<a href="#">ENSMUSG00000002057</a>

## Model Description

This strain carries a *Foxn1*<sup>nu</sup> mutation on the BALB/c background which will lead to T cell deletion. At the same time, the response to thymus-dependent antigens is limited, resulting in impaired B cell function while NK cells, macrophages, and antigen-presenting cells function normally. The complement activity is normal as well. Hair dysplasia causes aberrant hair growth in which the majority of the hair cannot protrude from the surface, resulting in a naked mouse phenotype.

\*Literature published using this strain should indicate: BALB/c Nude mice (Cat. NO. SM-014) were purchased from Shanghai Model Organisms Center, Inc..

## Validation Data

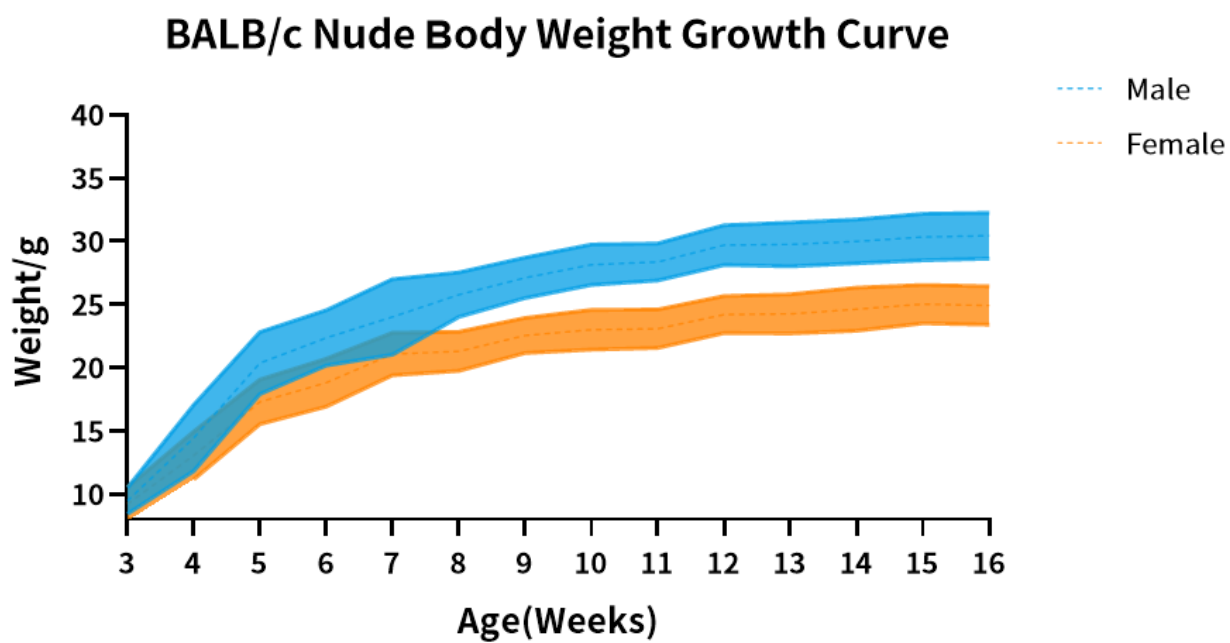


Fig1. Body weight growth curve of BALB/c Nude (n=30)

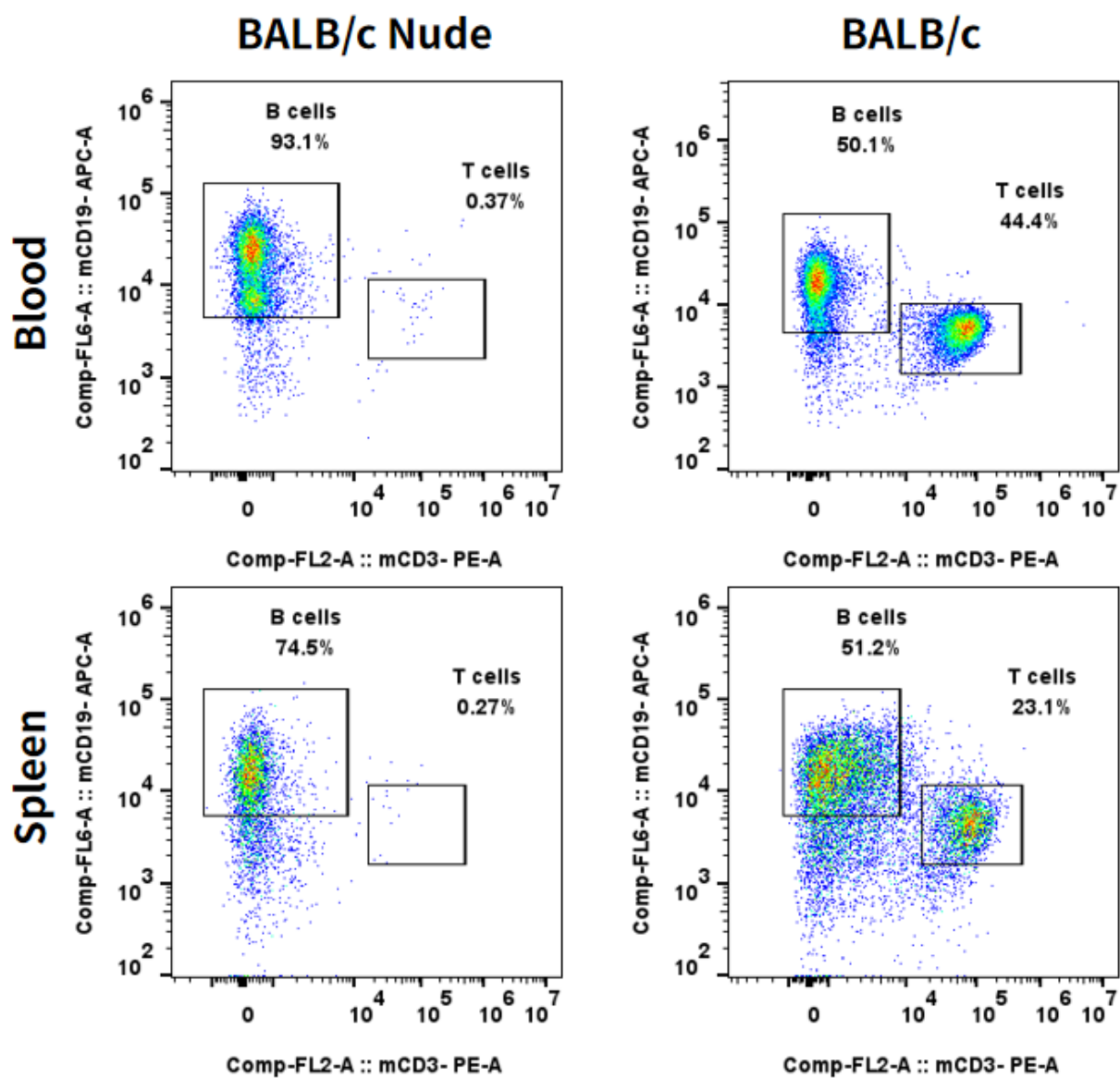


Fig2. Complete deletion of T, B cells of BALB/c Nude.

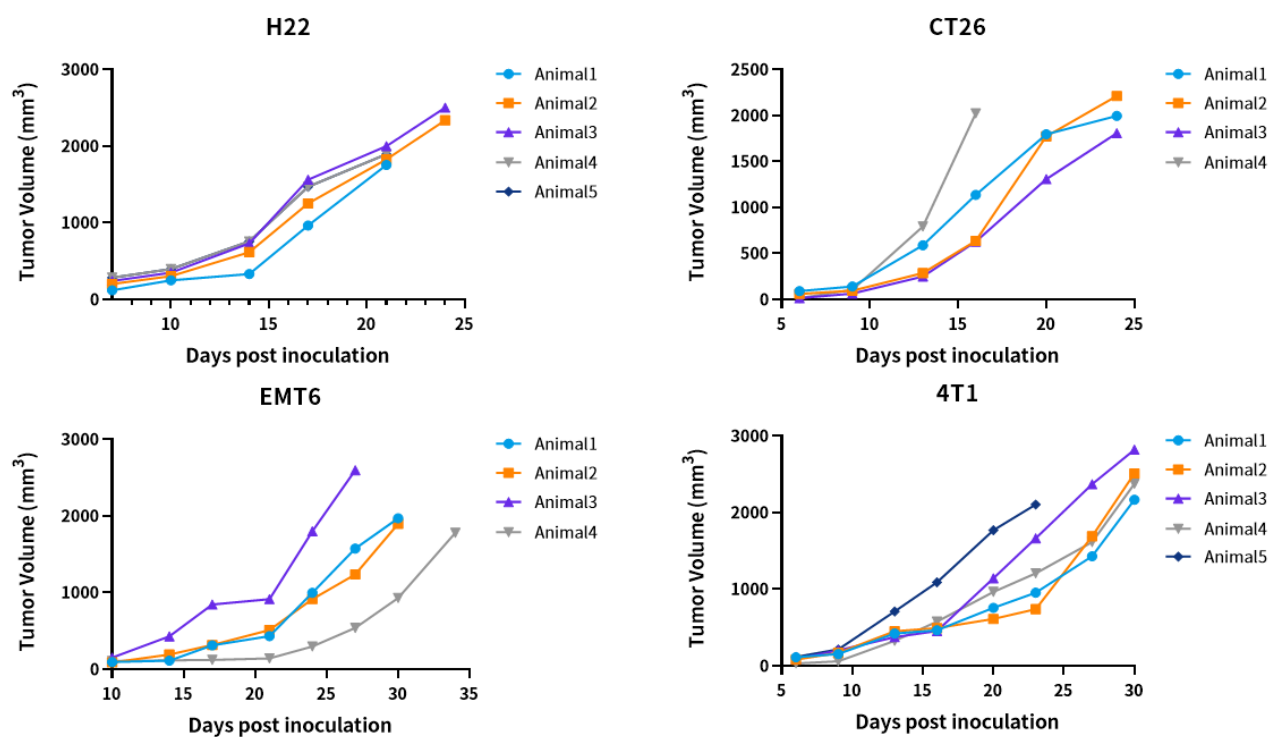


Fig3. Subcutaneous xenograft tumor growth in BALB/c Nude.

Parameter	Units	BALB/c Nude; Male	BALB/c Nude; Female
		8-10 weeks; n=10	8-10 weeks; n=10
WBC	10 <sup>3</sup> cells/ $\mu$ L	4.31 $\pm$ 0.62	3.58 $\pm$ 0.41
RBC	10 <sup>6</sup> cells/ $\mu$ L	10.38 $\pm$ 0.24	10.33 $\pm$ 0.10
HGB	g/dL	16.31 $\pm$ 0.33	16.56 $\pm$ 0.17
HCT	%	49.14 $\pm$ 0.99	49.72 $\pm$ 0.54
MCV	fL	47.37 $\pm$ 0.29	48.14 $\pm$ 0.32
MCH	pg	15.72 $\pm$ 0.08	16.04 $\pm$ 0.07
MCHC	g/dL	33.19 $\pm$ 0.12	33.32 $\pm$ 0.13
PLT	10 <sup>6</sup> cells/ $\mu$ L	1610.89 $\pm$ 67.43	1366.60 $\pm$ 58.87
RDW-SD	fL	29.53 $\pm$ 0.18	31.15 $\pm$ 0.27
RDW-CV	%	21.36 $\pm$ 0.32	21.76 $\pm$ 0.17
PDW	fL	10.58 $\pm$ 0.38	10.43 $\pm$ 0.31
MPV	fL	8.09 $\pm$ 0.15	7.85 $\pm$ 0.09
P-LCR	%	15.24 $\pm$ 1.02	13.58 $\pm$ 0.69
PCT	%	1.30 $\pm$ 0.05	1.07 $\pm$ 0.06
NEUT#	10 <sup>3</sup> cells/ $\mu$ L	1.16 $\pm$ 0.18	0.88 $\pm$ 0.14
LYMPH#	10 <sup>3</sup> cells/ $\mu$ L	2.82 $\pm$ 0.41	2.21 $\pm$ 0.25
MONO#	10 <sup>3</sup> cells/ $\mu$ L	0.24 $\pm$ 0.05	0.40 $\pm$ 0.13
EO#	10 <sup>3</sup> cells/ $\mu$ L	0.07 $\pm$ 0.03	0.06 $\pm$ 0.03
BASO#	10 <sup>3</sup> cells/ $\mu$ L	0.02 $\pm$ 0.01	0.06 $\pm$ 0.03
NEUT%	%	27.41 $\pm$ 1.87	24.88 $\pm$ 2.80
LYMPH%	%	65.15 $\pm$ 1.96	62.29 $\pm$ 2.16
MONO%	%	5.34 $\pm$ 0.68	10.29 $\pm$ 2.02
EO%(%)	%	1.65 $\pm$ 0.45	1.42 $\pm$ 0.64
BASO%	%	0.45 $\pm$ 0.28	0.74 $\pm$ 0.45
RET#	10 <sup>6</sup> cells/ $\mu$ L	0.44 $\pm$ 0.03	0.40 $\pm$ 0.03
RET%	%	4.29 $\pm$ 0.32	3.84 $\pm$ 0.29
LFR(%)	%	49.37 $\pm$ 1.29	50.77 $\pm$ 1.94
MFR(%)	%	18.83 $\pm$ 0.41	18.54 $\pm$ 0.55
HFR(%)	%	31.80 $\pm$ 1.00	30.69 $\pm$ 1.62
IRF(%)	%	50.63 $\pm$ 1.29	49.23 $\pm$ 1.94

Fig4. Blood routine tests in BALB/c Nude.

Parameter	Units	BALB/c Nude; Male	BALB/c Nude; Female
		8-10 weeks; n=10	8-10 weeks; n=10
TP	g/L	55.30±2.10	56.80±1.16
ALB	g/L	25.00±0.91	25.20±0.61
ALP	U/L	589.10±21.37	619.60±17.17
ALT	U/L	105.60±16.13	75.60±18.24
AST	U/L	259.30±63.48	187.60±54.53
T-BIL	μmol/L	2.20±0.25	1.56±0.22
D-BIL	μmol/L	3.11±0.41	2.70±0.61
CHE	U/L	4512.10±296.95	8047.20±244.23
CRE	μmol/L	15.63±0.51	15.68±0.29
BUN	mmol/L	9.12±0.39	10.48±0.39
UA	μmol/L	258.36±27.08	230.80±33.04
TCHO	mmol/L	2.85±0.12	2.53±0.07
TG	mmol/L	1.36±0.11	1.27±0.09
HDL	mmol/L	2.69±0.16	2.07±0.21
LDL	mmol/L	1.53±0.04	1.56±0.01
NEFA	mmol/L	1.06±0.05	1.04±0.09
LDH	U/L	667.20±117.13	592.40±154.07
CK	U/L	1251.30±471.32	1089.60±604.72
Hcy	μmol/L	6.64±0.40	6.92±0.43
GLU	mmol/L	15.30±1.07	14.78±1.46
Ca	mmol/L	3.23±0.11	3.20±0.06
IP	mmol/L	3.68±0.13	3.84±0.17
Fe	μmol/L	55.89±1.99	47.92±1.84
CRP	mg/L	1.33±0.34	1.45±0.40

Fig5. Blood biochemistry in BALB/c Nude.

Table 1. BALB/c Nude xenograft cell lines

Cancer Type	Cell Lines (100+)
Breast	MCF-7/5C, MCF-7/TAM2, MCF-7/RAL2, MCF-7/RAL1, MCF-7/E2, MCF-7, MDA-MB-231, T47D, BT-20, MDA-MB-435, MCF10A, MDA-MB-435/LCC6, MCF-7LU, M4A4-LM, SUM149PT...
Lung	HCC827, NCI-H358, A549, NCI-H1299, LT391-06, SK-MES-1, Calu-3, NCI-H460, NCI-H2126, NCI-H1975, NYH, NCI-H727, GLC19...
Liver	Hep3B2.1-7, HepG2...
Prostate	LNCaP, VCaP, PC-3, LNCaPC4-2B, LAPC-4, DU145, PC-82, PC-310, PC-295, PC346-DCC-K, PC3-MM2, PC-346C...
Melanoma	SK-MEL-31, SK-MEL-28, SK-MEL-5, A-375, WM1617, WM9, G-361...
Colon	T84, HT-29, HCT116, LS174T, SW620...
Bladder	KU-19-19, URO-MSC24, URO-ASC, UROtsa, URO-MSC52, RT4...
Ovarian	TOV-21G, TOV-112D, A2780, OVCAR-3, A2780/CP70, A2780cis...
Pancreatic	BxPC-3, Capan-1, MIAPaCa-2, PANC-1, L3.6pl, HPAF-II...
Glioma	BT-40, A-172...
Kidney	786-O...
Carcinoma	A-498...
Cervical	HeLa...
Myeloma	INA-6...
Stomach	MKN28, NCI-N87, MKN45...
Adenocarcinoma	KB-C2, KB-3-1...
Others	U-251MG, Caki-1, AN3CA, HT-1080...