

## hC3

**Nomenclature** C57BL/6Smoc-*C3*<sup>em1(hC3)/Smoc</sup>

**Cat. NO.** NM-HU-2000079

**Strain State** Repository Live

#### **Gene Summary**

Gene Symbol C3	Synonyms	ASP; Plp; HSE-MSF; AI255234
	NCBI ID	<u>12266</u>
	MGI ID	88227
	Ensembl ID	ENSMUSG00000024164
	Human Ortholog	C3

### **Model Description**

The endogenous mouse C3 gene was replaced by human C3 gene.

**Research Application**: Immunotherapy,drug screening

\*Literature published using this strain should indicate: hC3 mice (Cat. NO. NM-HU-2000079) were purchased from Shanghai Model Organisms Center, Inc..

#### **Validation Data**

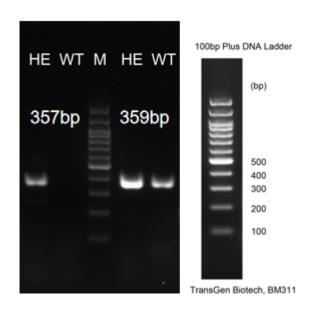




Fig1. Detection of C3 expression in liver by RT-PCR.

Wild type: only one band at 359 bp with primers F1/R1(mC3);

Heterozygous: one band at 359 bp with primers F1/R1(mC3) and one band at 357 bp with primers F2/R2(hC3);

Abbr. M, DNA marker; HO, homozygous; HE, heterozygous; WT, wild type.

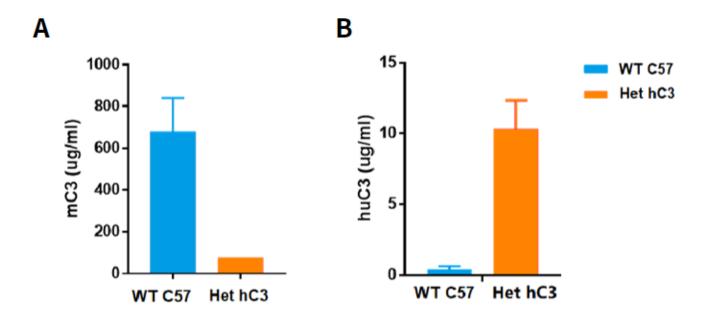


Fig 2. Detection of heterozygous hC3 expression in serum by ELISA.

Abbr. Het, heterozygous; WT, wild type.

Note: Data from the collaborator.



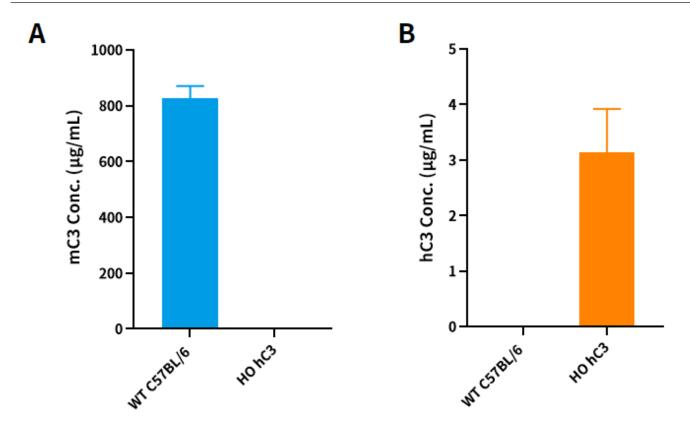


Fig 3. Detection of hC3 expression in serum by ELISA(n=3).

Abbr. HO, homozygous; HE, heterozygous; WT, wild type.

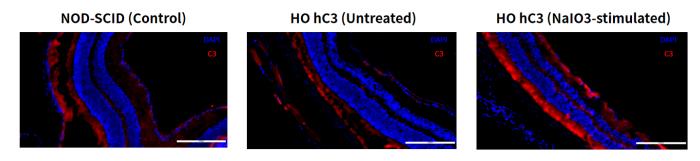


Fig 4. Detection of hC3 expression in eyes in hom hC3 KI mice by IF (n=5/group).



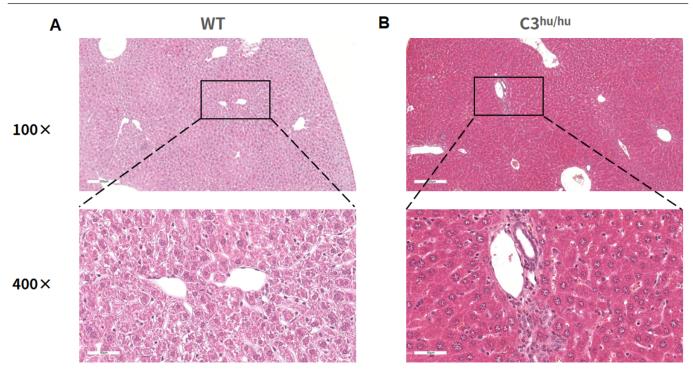


Fig 5. The C3 $_{hu/hu}$  mice showed inflammation in the portal region and bile duct hyperplasia (100 $\times$  and 400 $\times$ )

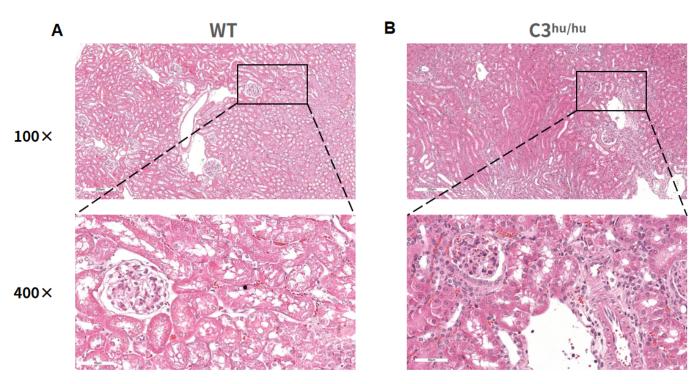


Fig 6. The C3hu/hu mice showed glomerular sclerosis, glomerular atrophy and inflammation of the capillary tufts area (100x and 400x)



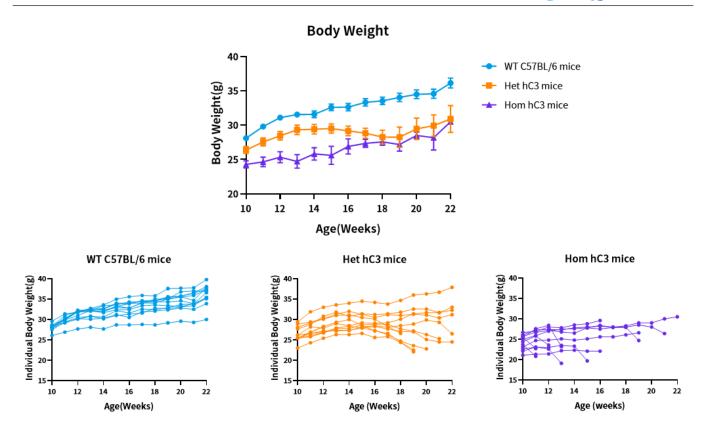


Fig 7. Body Weight of C3hu/hu mouse (n=12/group).

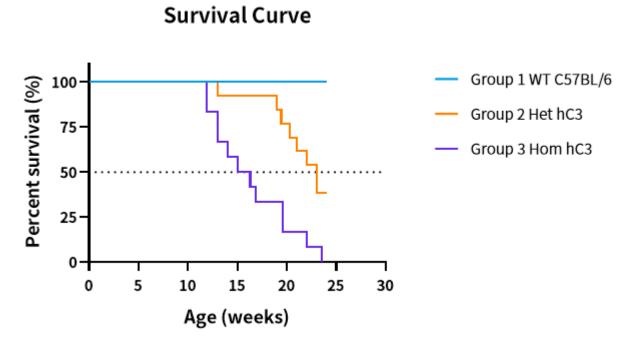


Fig 8. Survival curve of C3hu/hu mouse (n=12/group).



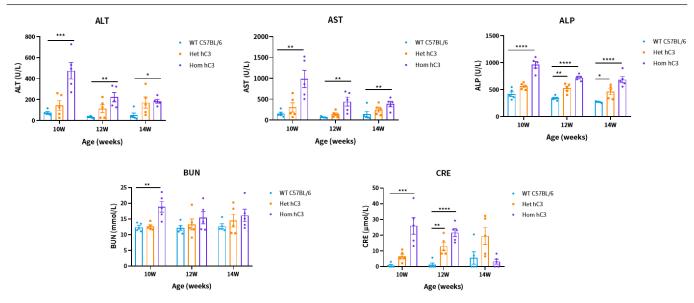


Fig 9. Serum Biochemistry of C3hu/hu mouse (n=5/group).

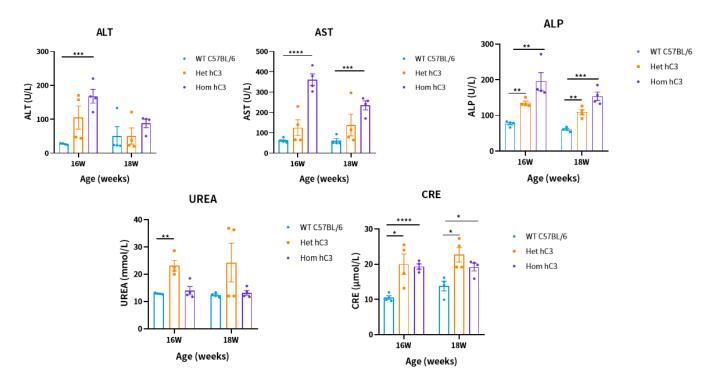


Fig 10. Serum Biochemistry of C3hu/hu mouse (n=5/group, a different biochemical analyzer was used than in Fig 9).



## WT C57BL/6

# Het hC3

### Hom hC3

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1	5	W	10	ما⊂	(5	0	ıd

16 weeks old

R	RACK:00	02-01
ID. 20231103	G1	
C. 000000003	Stri	p 11A
11/28/23	17:27	
URO normal		mg/dL
BLD -		mg/dL
BIL -		mg/dL
KET -		mg/dL
GLU -		mg/dL
*PRO 1+	30	mg/dL
pH 7.0		
NIT -		
LEU -		c/uL
CRE 10		mg/dL
ALB 80		mg/L
*P/C 2+	>=0.50	g/gCr
*A/C 2+	>=300	mg/gCr
S. G 1. 037		
COLOR YELL	_0\\	
CLOUD 2+		

					'h\-
		RA	CK:0	0002	-04
ID. 20	2311	10	G1		
	00000				11A
	/28/		17:3		
	norn	nal			/dL
BLD	-				/dL
KET	-				/dL /dL
GLU	_				/dL
PRO	+-	1.	5		/dL
рН	7.5				

		<b>-</b>
	RACK:00	02-04
ID. 20231110	G1	
		- 111
C. 000000006		
11/28/23	3 17:35	)
URO norma	l	mg/dL
BLD -		mg/dL
BIL -		
		mg/dL
KET -		mg/dL
GLU -		mg/dL
PRO +-	15	mg/dL
pH 7.5	10	mg/ uc
NIT -		
LEU -		c/uL
CRE 10		mg/dL
ALB 30		mg/L
*P/C 2+	>=0.50	)g/gCr
*A/C 2+	>=300	mg/gCr
S. G 1, 030	,	0.0
	a w	
COLOR STRA	400	
CLOUD -		

		<b>-</b>
	RACK:00	002-02
ID. 20231103	3 G2	
C. 00000000		p 11A
11/28/23		
URO norma		mg/dL
BLD -		mg/dL
BIL -		mg/dL
*KET 1+	10	mg/dL
GLU -		mg/dL
PRO +-	15	mg/dL
pH 5.5		
NIT -		
LEU -		c/uL
CRE 10		mg/dL
ALB 80		mg/L
*P/C 2+	>=0.50	)g/gCr
*A/C 2+	>=300	mg/gCr
S. G 1, 039		
COLOR YELI	LOW	
CLOUD -		

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RACK:0002-05
RACK:0002-05

ID.20231110 G2

C.00000007 Strip 11A

11/28/23 17:35

URO normal mg/dL

BLD - mg/dL

BIL - mg/dL
                                                mg/dL
mg/dL
mg/dL
BLD -
BIL -
*KET 1+
GLU -
PRO +-
pH 6.0
NIT -
                               10
                                                 mg/dL
                                                mg/dL
mg/dL
NIT -
LEU -
CRE 50
ALB 80
*P/C 1+ 0.3
*A/C 1+ 150
S.G 1.045
COLOR YELLOW
CLOUD 1+
                                                 c/uL
                                                 mg/dL
                                                mg/L
g/gCr
                               150
                                                 mg/gCr
  CLOUD 1+
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RACK:0002-03
 ID. 20231103 G3
C. 00000005 Strip 11A
11/28/23 17:34
11/28/23

URO normal

BLD -

BIL -

*KET 1+ 1

GLU -

PRO +- 1

PH 5.5

NIT -

LEU -

CRE 50
                                                 mg/dL
                                                mg/dL
mg/dL
                                10
                                                 mg/dL
                                                 mg/dL
                                15
                                                mg/dL
                              c/uL
mg/dL
mg/L
0.30 g/gCr
150 mg/gCr
EEU -
CRE 50
ALB 80
*P/C 1+ 0.3
*A/C 1+ 150
S.G 1.035
COLOR YELLOW
CLOUD 1+
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RACK:0002-06
ID.20231110 G3
C.00000008 Strip 11A
11/28/23 17:35
*URO 1+ 2.0 mg/dL
BLD +- 0.03 mg/dL
BLL - mg/dL
*KET 1+ 10 mg/dL
GLU -
                                                                 mg/dL
mg/dL
 *RET 1+
GLU -
*PRO 1+
pH 5.5
NIT -
LEU -
                                           30
                                                                  mg/dL
    LEU -
CRE 10
                                         mg/dL
mg/L
>=0.50g/gCr
>=300 mg/gCr
ALB 150

*P/C 2+ >=0

*A/C 2+ >=3

S. G 1.050

COLOR YELLOW

CLOUD 2+
```

Fig 11. Urinalysis of C3hu/hu mouse.