

hC3

Nomenclature	C57BL/6Smoc- <i>C3</i> ^{em1(hC3)/Smoc}
Cat. NO.	NM-HU-2000079
Strain State	Repository Live

Gene Summary

Gene Symbol C3	Synonyms	ASP; Plp; HSE-MSF; AI255234
	NCBI ID	12266
	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

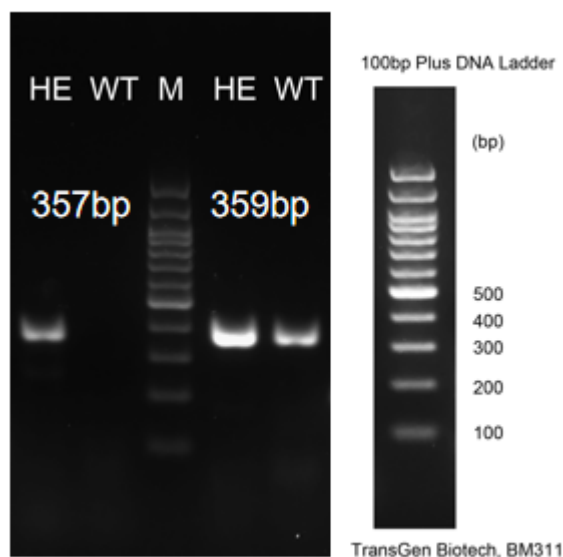


Fig1. Detection of C3 expression in liver by RT-PCR.

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.

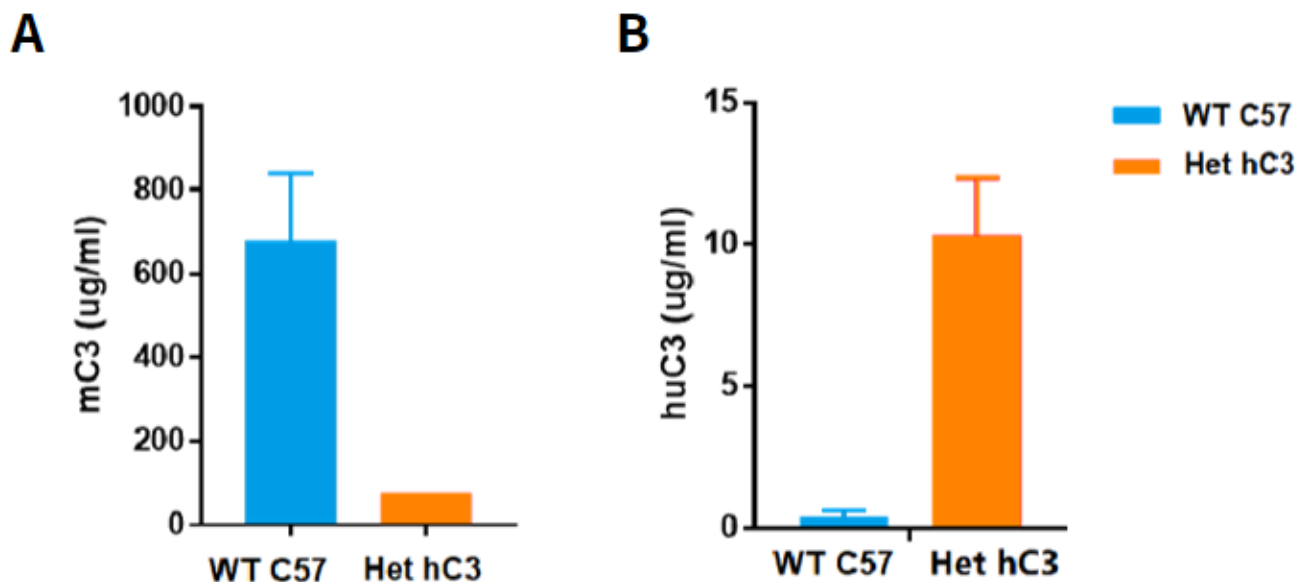


Fig 2. Detection of heterozygous hC3 expression in serum by ELISA.

Abbr. Het, heterozygous; WT, wild type.

Note: Data from the collaborator.

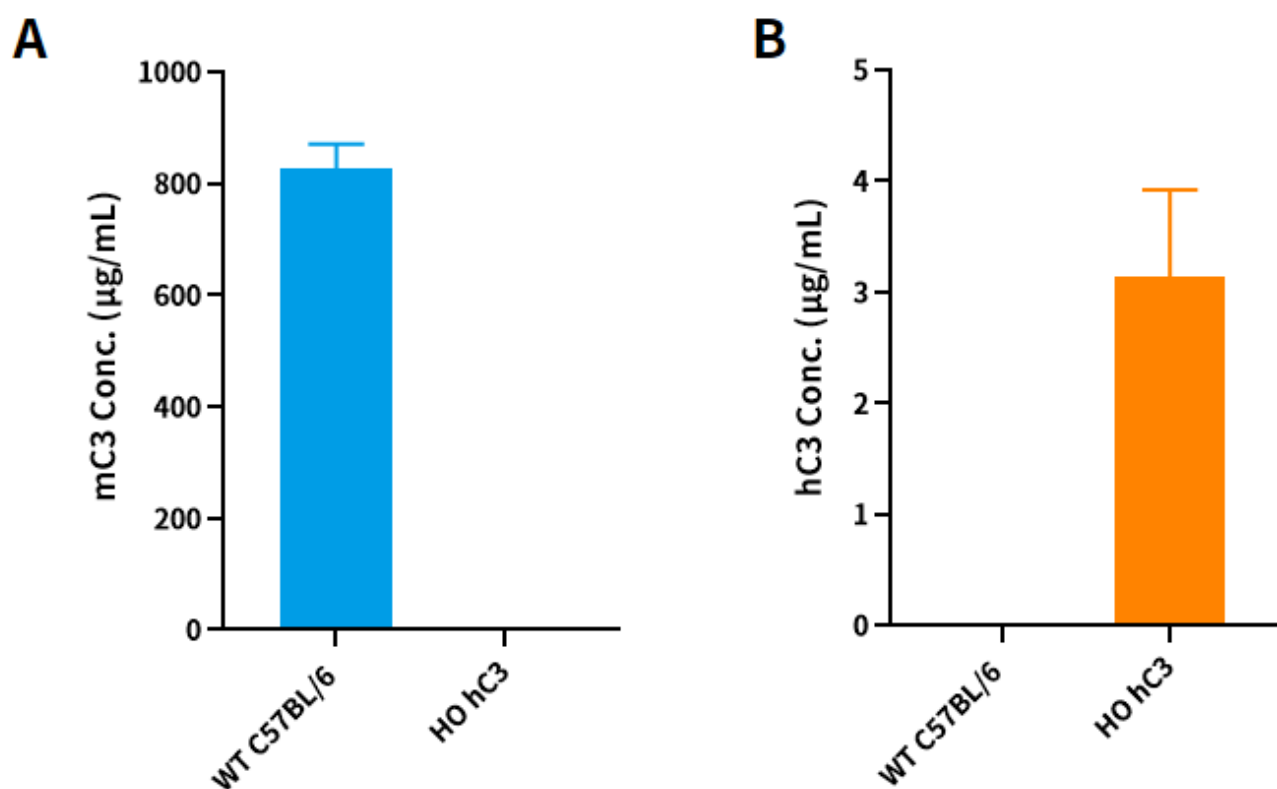


Fig 3. Detection of hC3 expression in serum by ELISA(n=3).

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

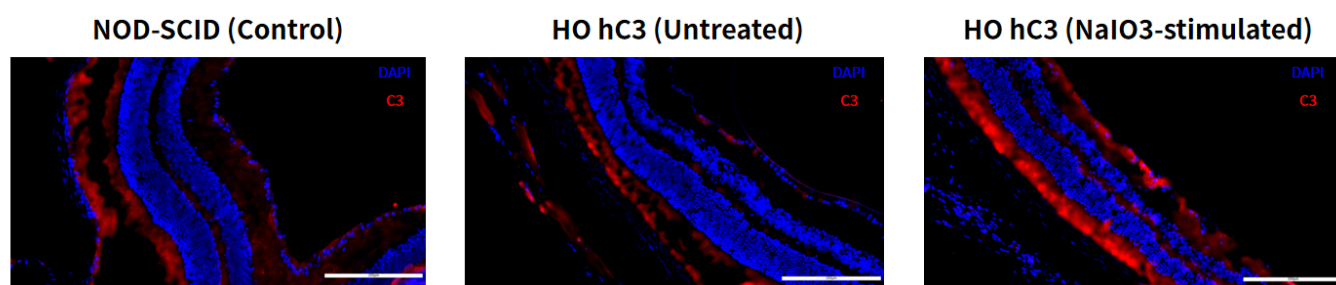


Fig 4. Detection of hC3 expression in eyes in hom hC3 KI mice by IF (n=5/group).

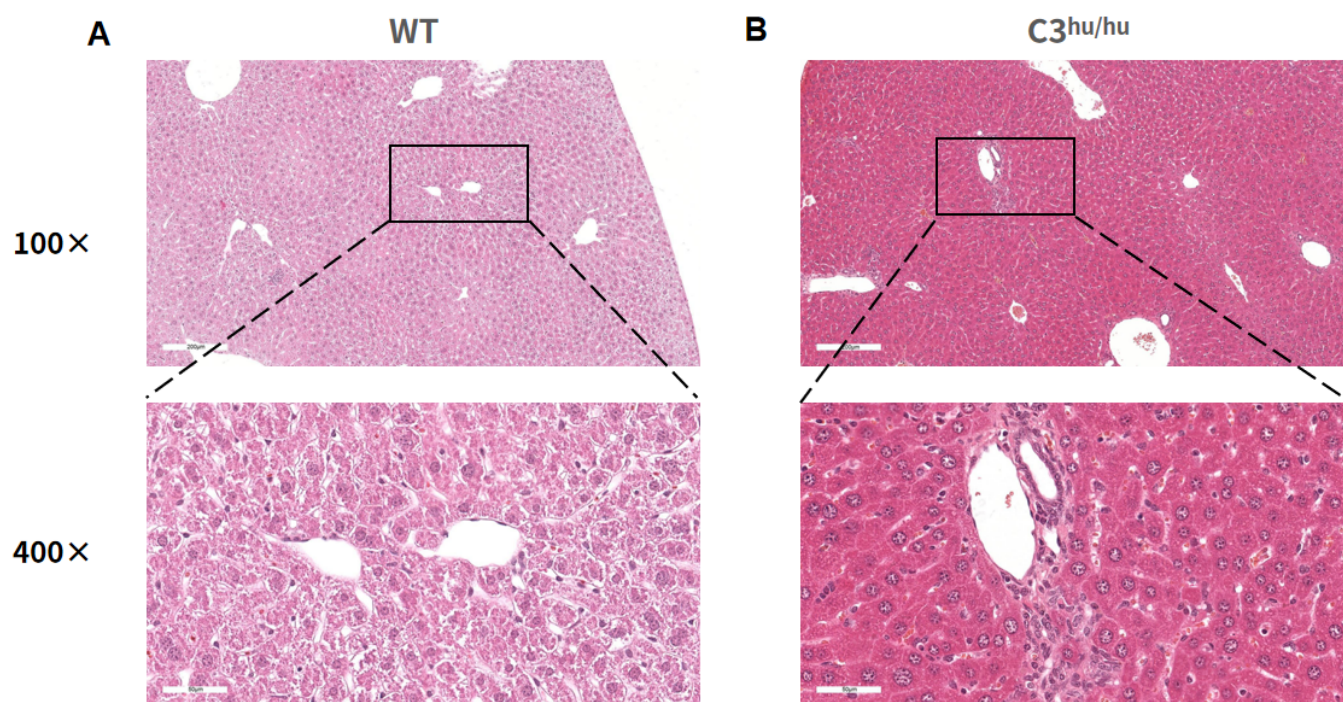


Fig 5. The C3^{hu/hu} mice showed inflammation in the portal region and bile duct hyperplasia (100x and 400x)

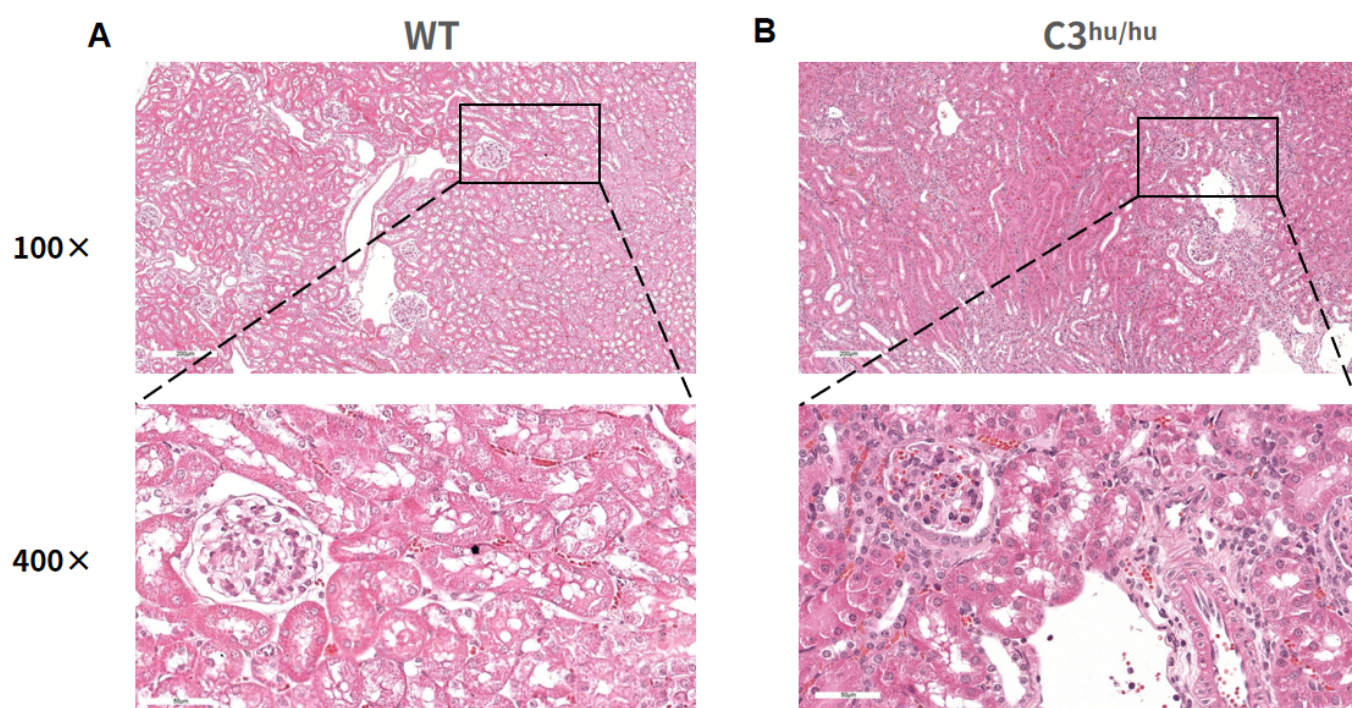


Fig 6. The C3^{hu/hu} mice showed glomerular sclerosis, glomerular atrophy and inflammation of the capillary tufts area (100x and 400x)

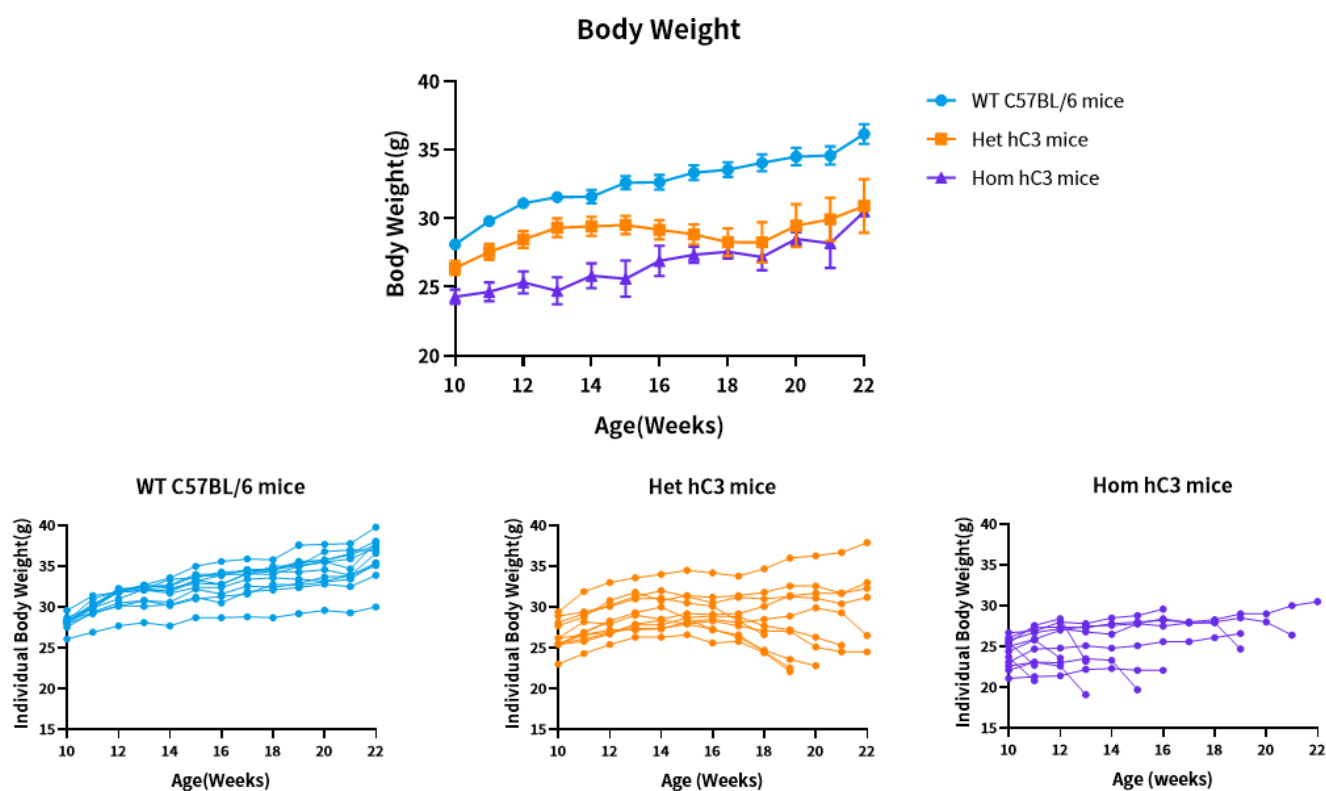


Fig 7. Body Weight of C3^{hu/hu} mouse (n=12/group).

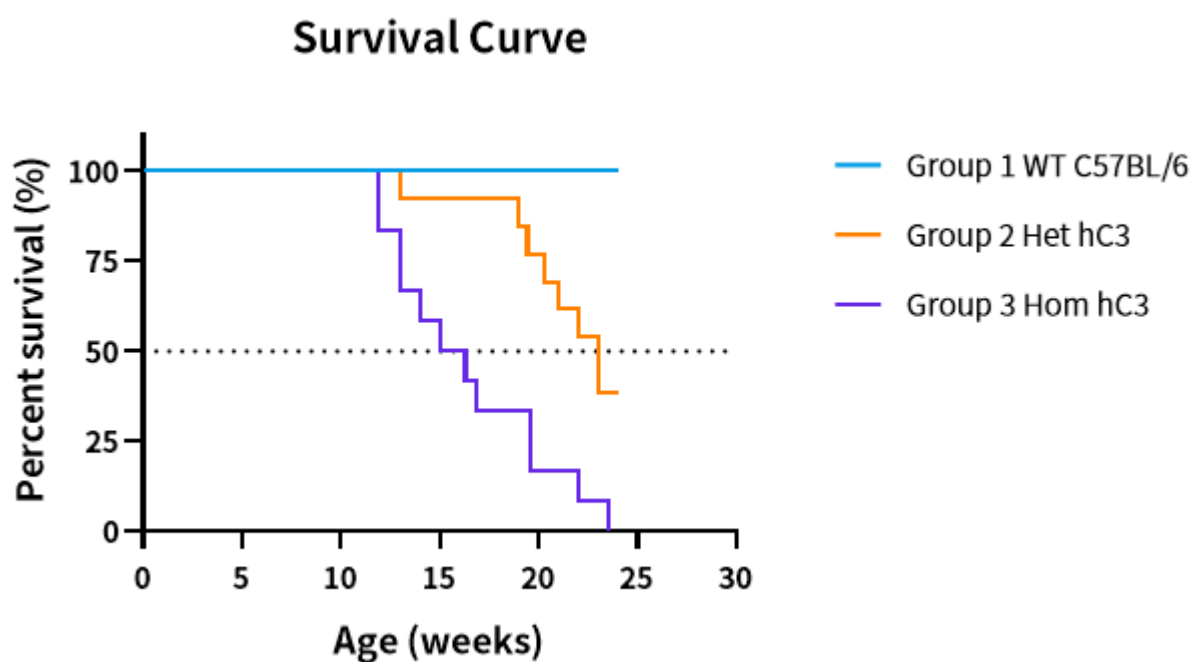


Fig 8. Survival curve of C3^{hu/hu} mouse (n=12/group).

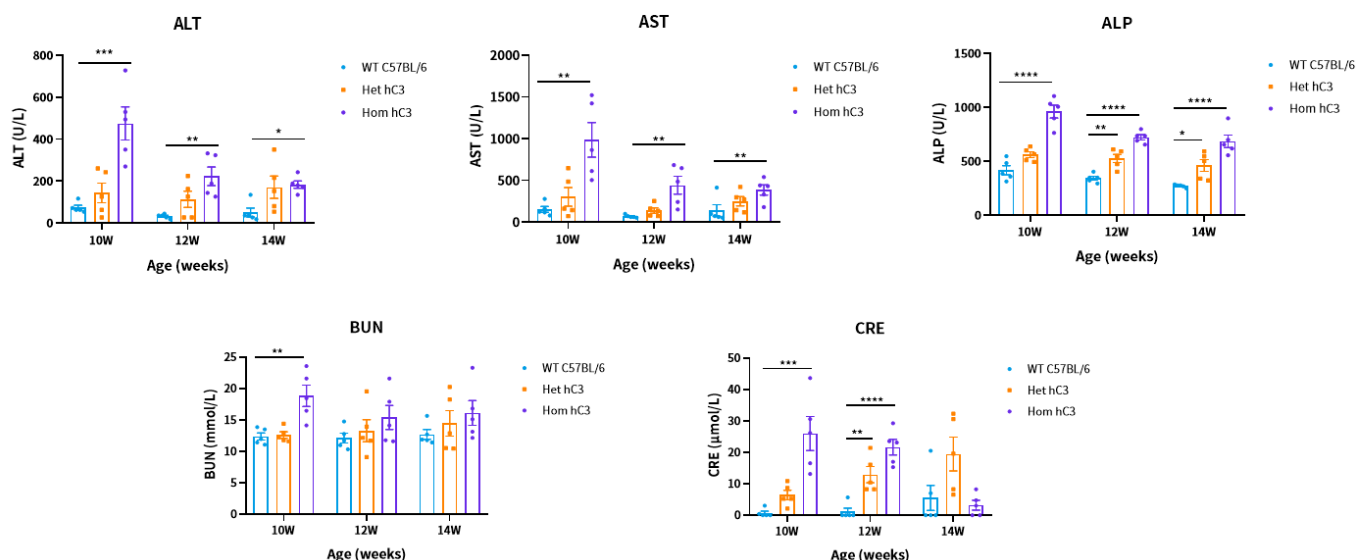


Fig 9. Serum Biochemistry of C3^{hu/hu} mouse (n=5/group).

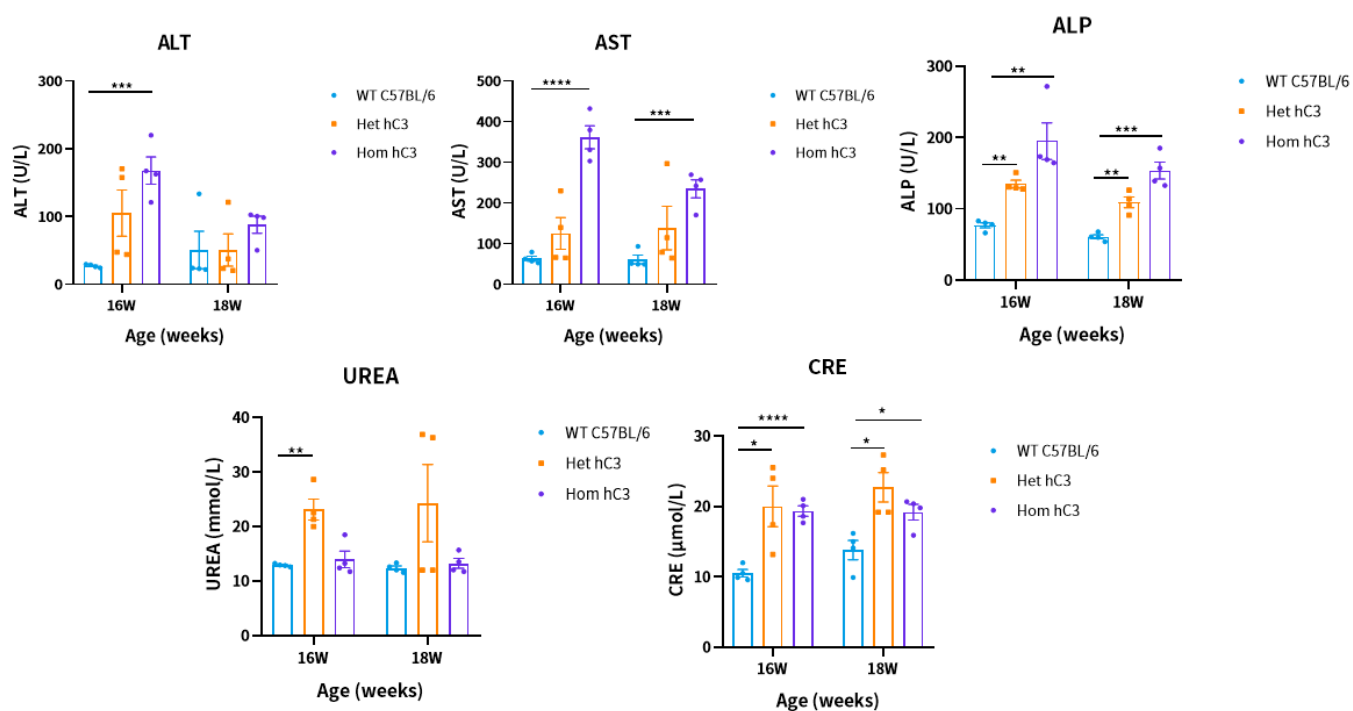


Fig 10. Serum Biochemistry of C3^{hu/hu} mouse (n=5/group, a different biochemical analyzer was used than in Fig 9).

	WT C57BL/6	Het hC3	Hom hC3
15 weeks old	<pre> ---------- RACK:0002-01 ID.20231103 G1 C.00000003 Strip 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+ >=0.50g/gCr *A/C 2+ >=300 mg/gCr S.G 1.037 COLOR YELLOW CLOUD 2+ </pre>	<pre> ---------- RACK:0002-02 ID.20231103 G2 C.00000004 Strip 11A 11/28/23 17:27 URO normal 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+ >=0.50g/gCr *A/C 2+ >=300 mg/gCr S.G 1.039 COLOR YELLOW CLOUD - </pre>	<pre> ---------- RACK:0002-03 ID.20231103 G3 C.00000005 Strip 11A 11/28/23 17:34 URO normal 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 50 mg/dL ALB 80 mg/L *P/C 1+ 0.30 g/gCr *A/C 1+ 150 mg/gCr S.G 1.035 COLOR YELLOW CLOUD 1+ </pre>
16 weeks old	<pre> ---------- RACK:0002-04 ID.20231110 G1 C.00000006 Strip 11A 11/28/23 17:35 URO normal mg/dL BLD - mg/dL BIL - mg/dL KET - mg/dL GLU - mg/dL PRO +- 15 mg/dL pH 7.5 NIT - LEU - c/uL CRE 10 mg/dL ALB 30 mg/L *P/C 2+ >=0.50g/gCr *A/C 2+ >=300 mg/gCr S.G 1.030 COLOR STRAW CLOUD - </pre>	<pre> ---------- 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 *KET 1+ 10 mg/dL GLU - mg/dL PRO +- 15 mg/dL pH 6.0 NIT - LEU - c/uL CRE 50 mg/dL ALB 80 mg/L *P/C 1+ 0.30 g/gCr *A/C 1+ 150 mg/gCr S.G 1.045 COLOR YELLOW CLOUD 1+ </pre>	<pre> ---------- 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 BIL - mg/dL *KET 1+ 10 mg/dL GLU - mg/dL *PRO 1+ 30 mg/dL pH 5.5 NIT - LEU - c/uL CRE 10 mg/dL ALB 150 mg/L *P/C 2+ >=0.50g/gCr *A/C 2+ >=300 mg/gCr S.G 1.050 COLOR YELLOW CLOUD 2+ </pre>

Fig 11. Urinalysis of C3^{hu}/hu mouse.