

Figure 1

HDTV – Human NAGLU

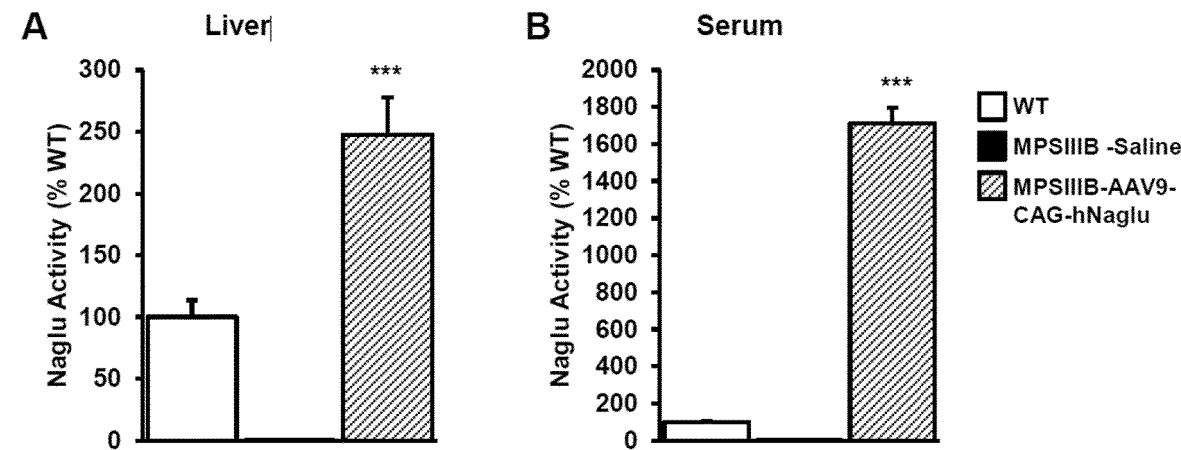


Figure 2

IV – Human NAGLU

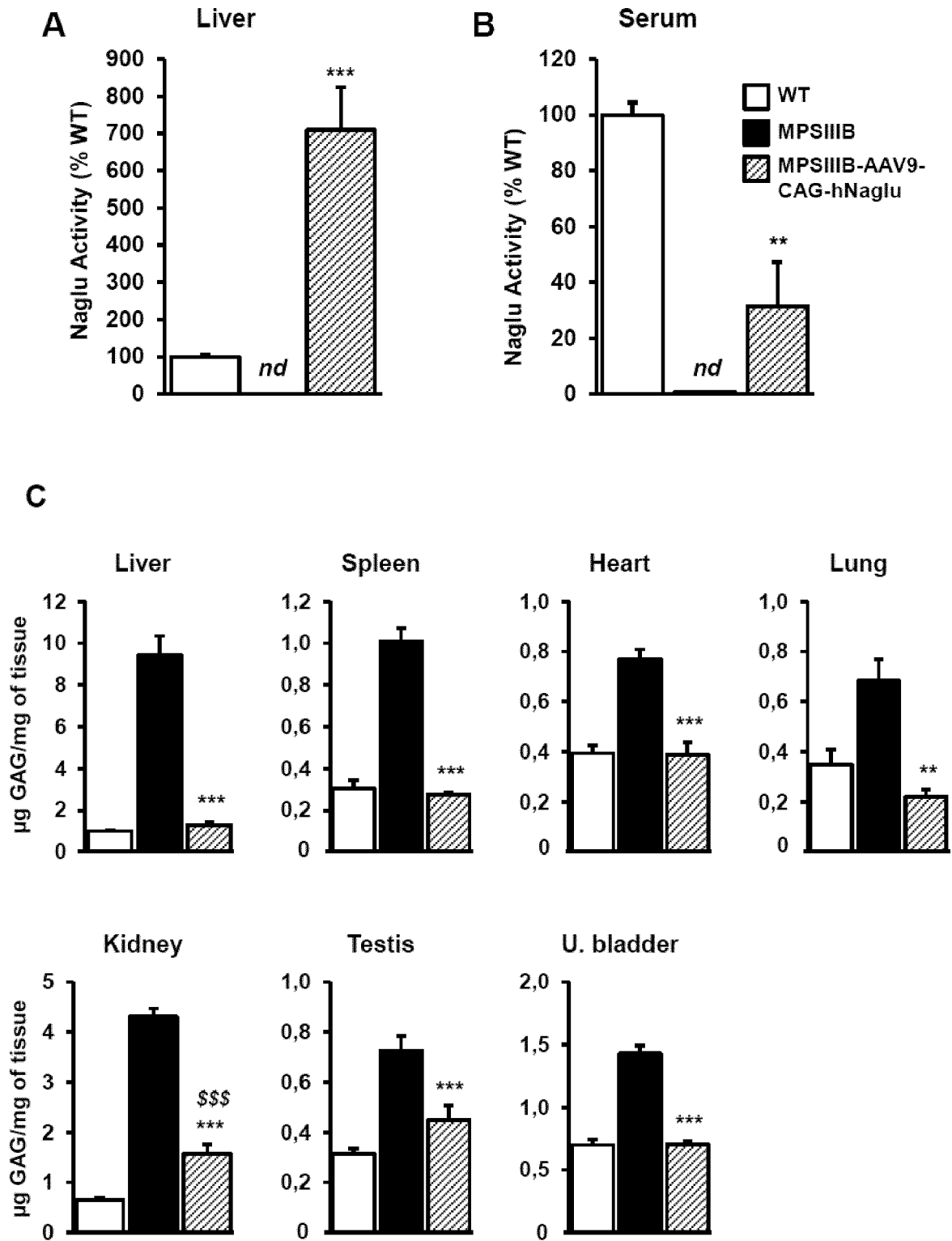


Figure 3

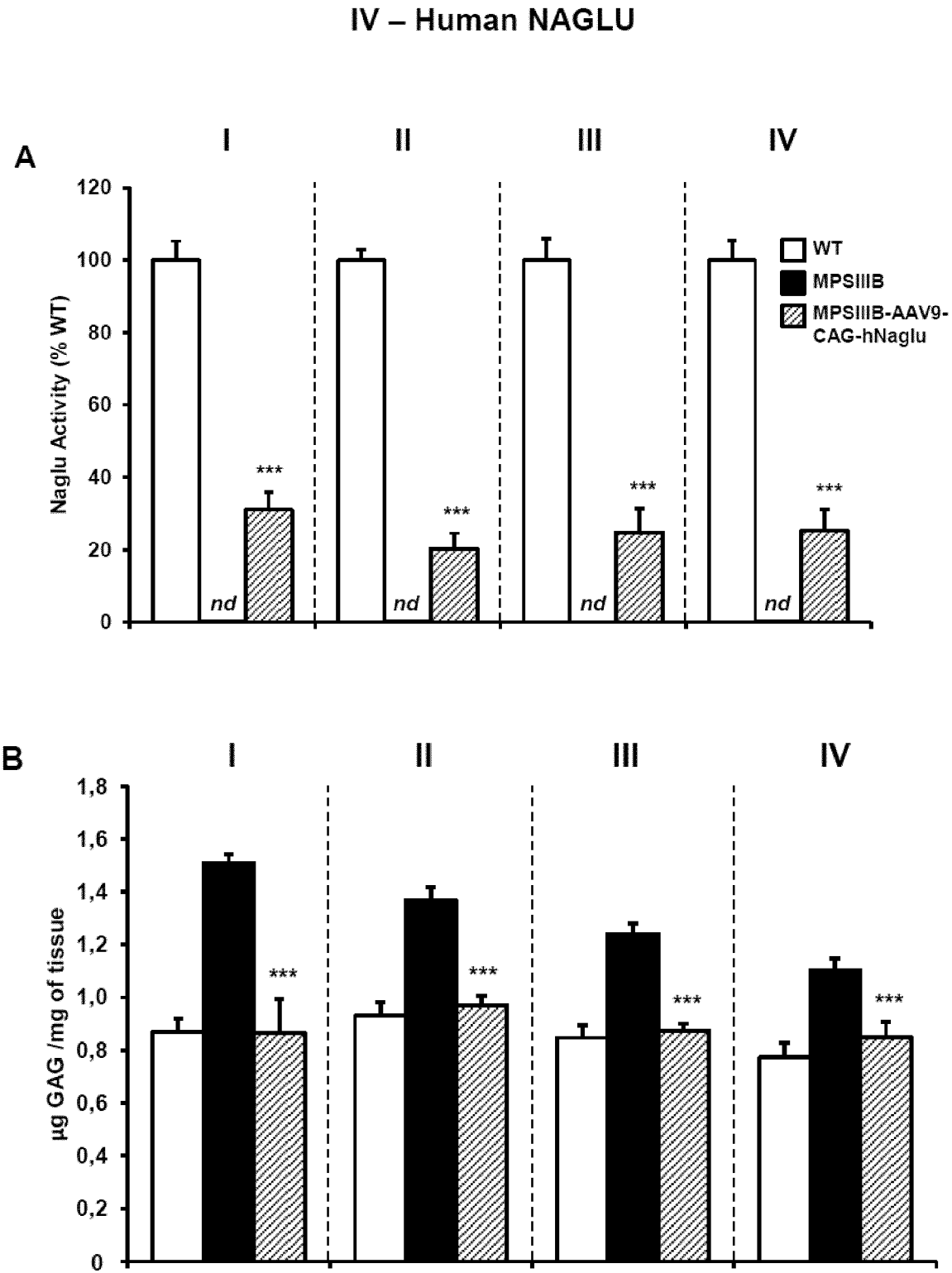


Figure 4

IV – Codon-optimized human NAGLU

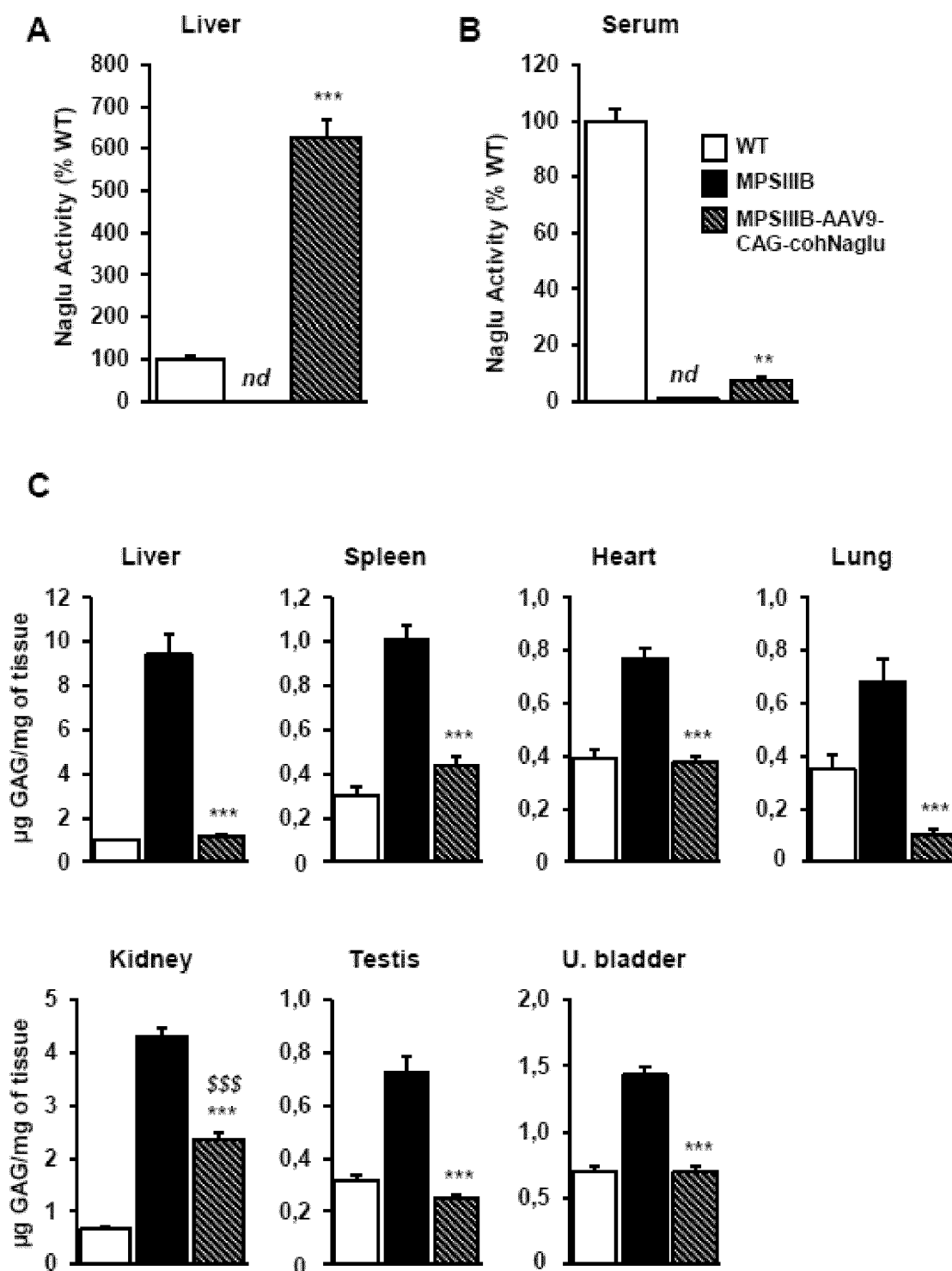


Figure 5

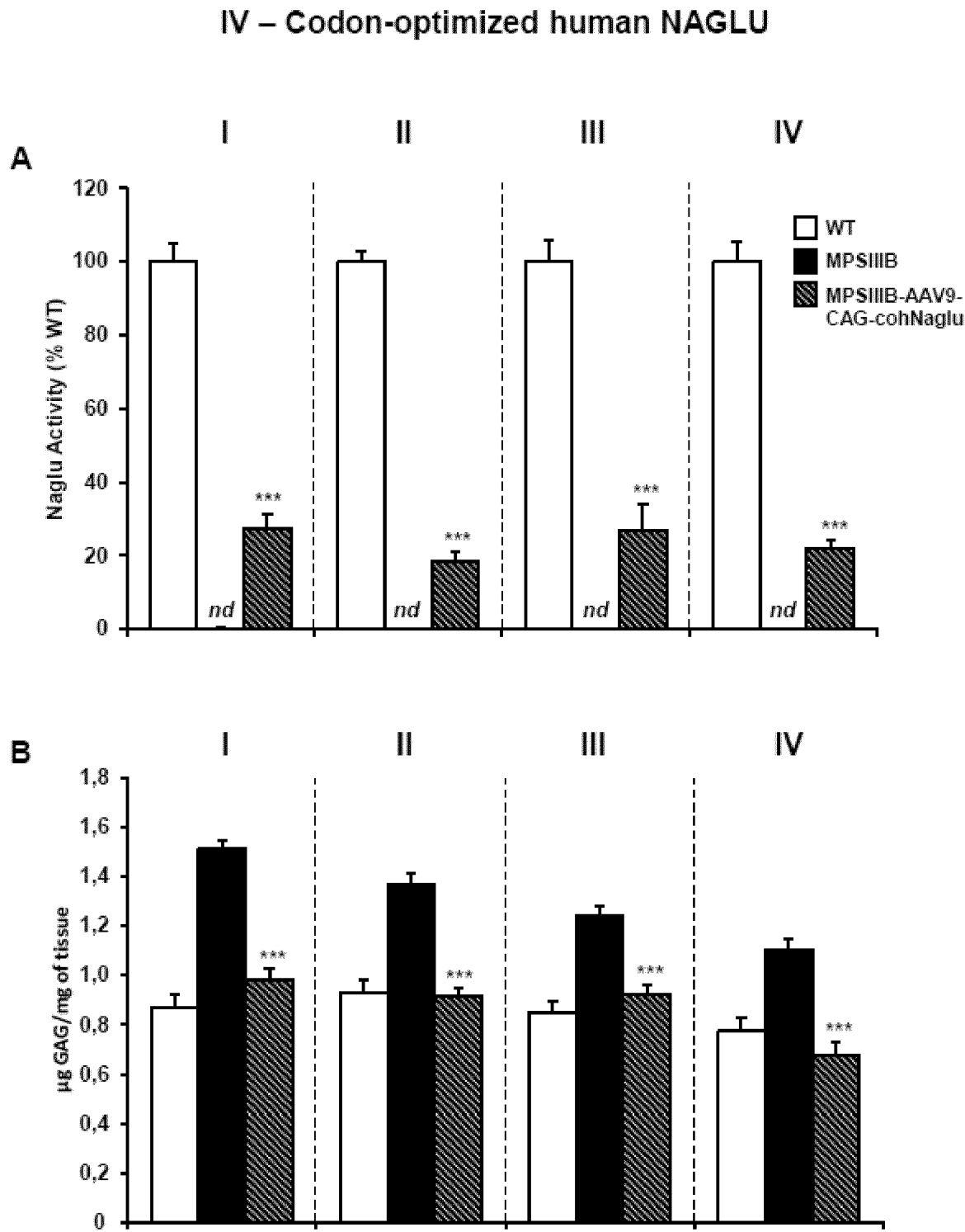


Figure 6

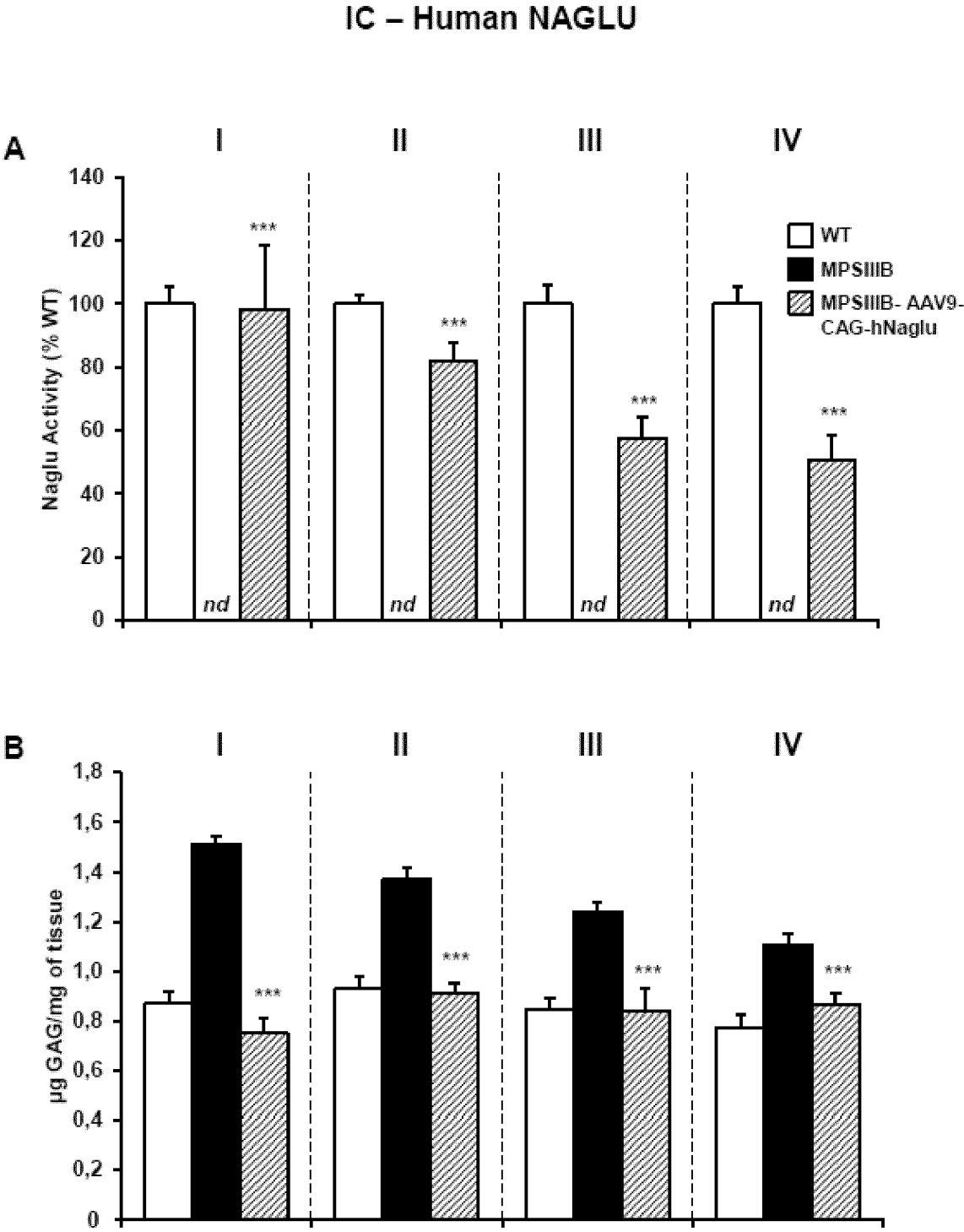


Figure 7

IC – Human NAGLU

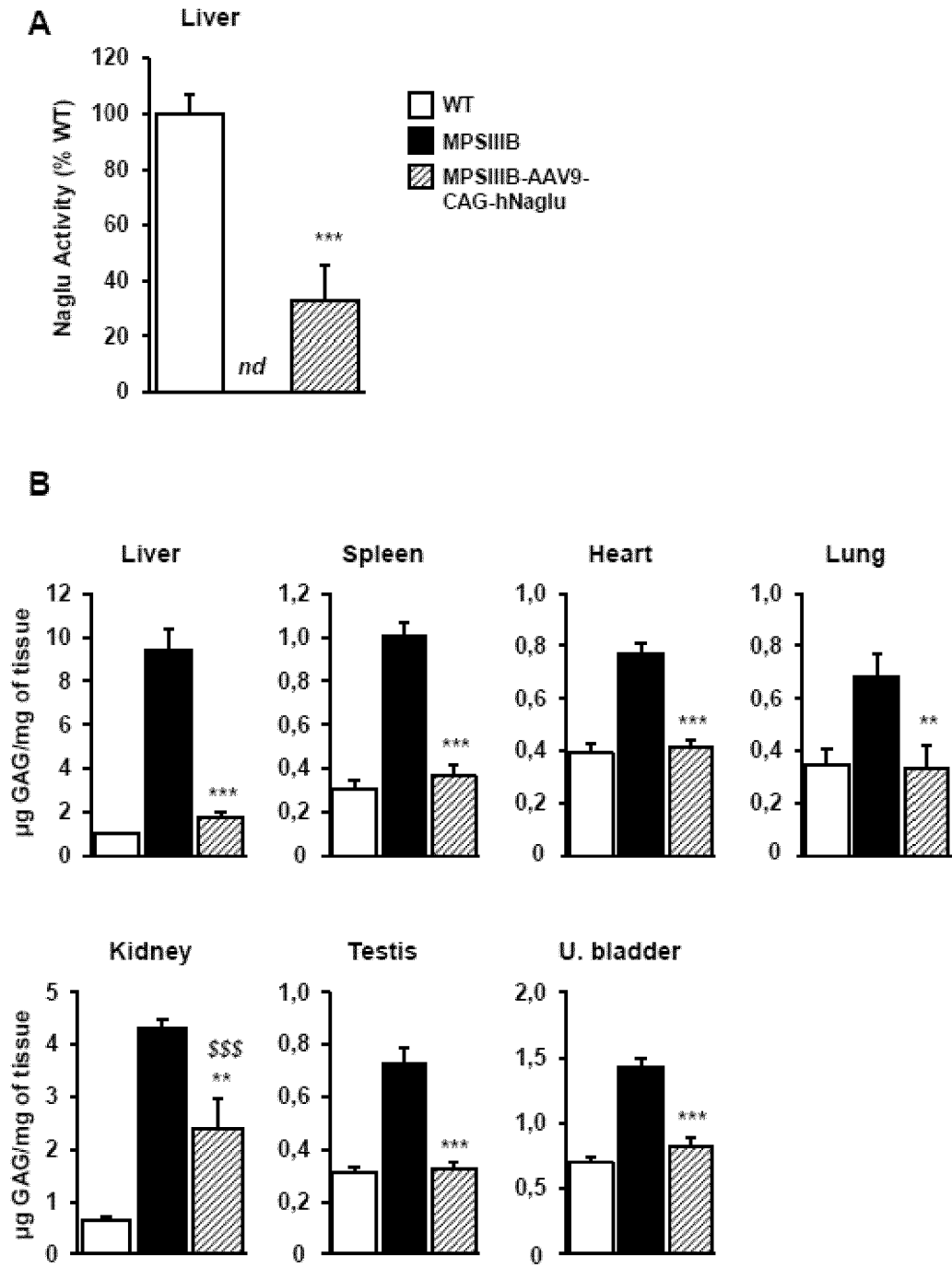


Figure 8

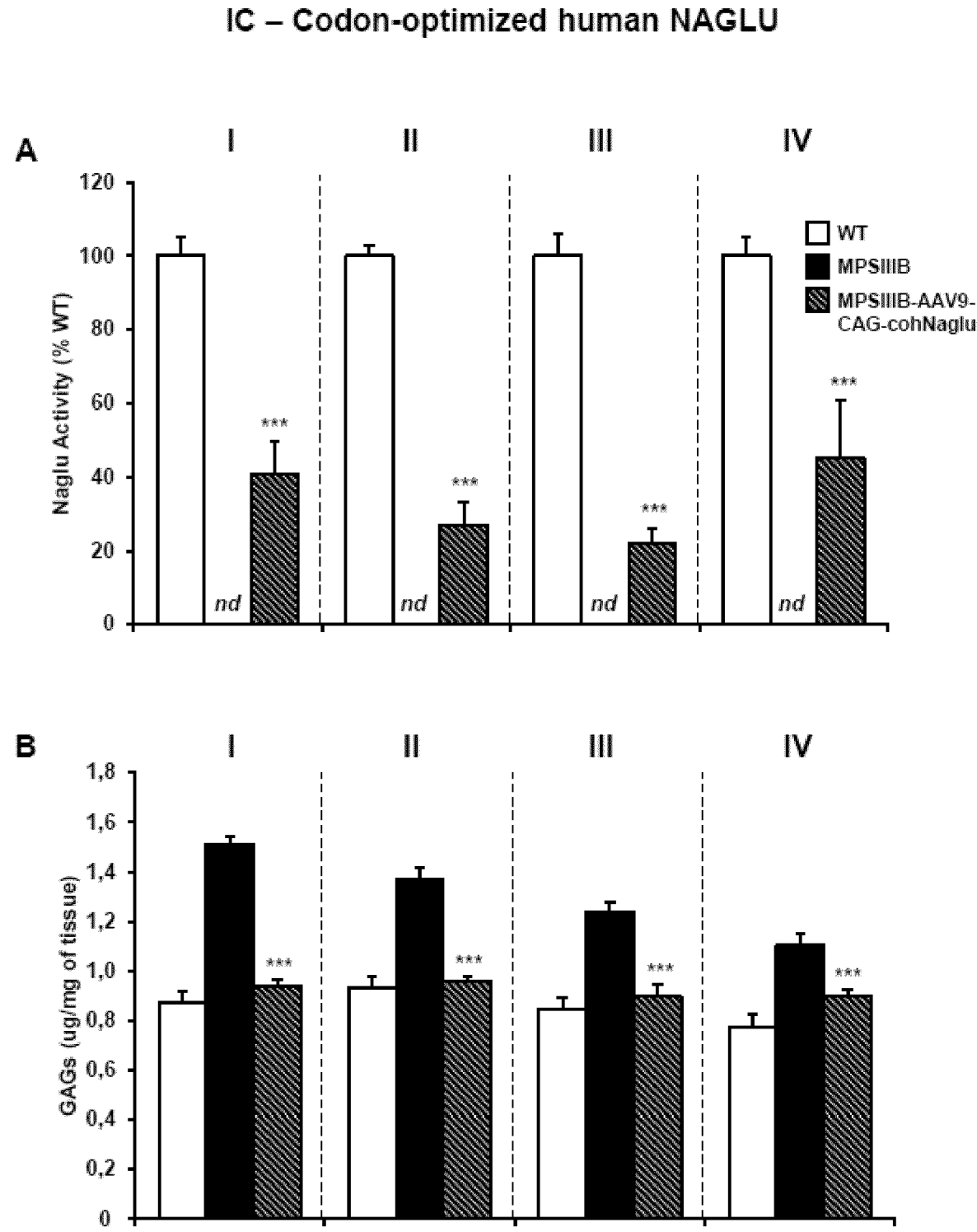


Figure 9

IC – Codon-optimized human NAGLU

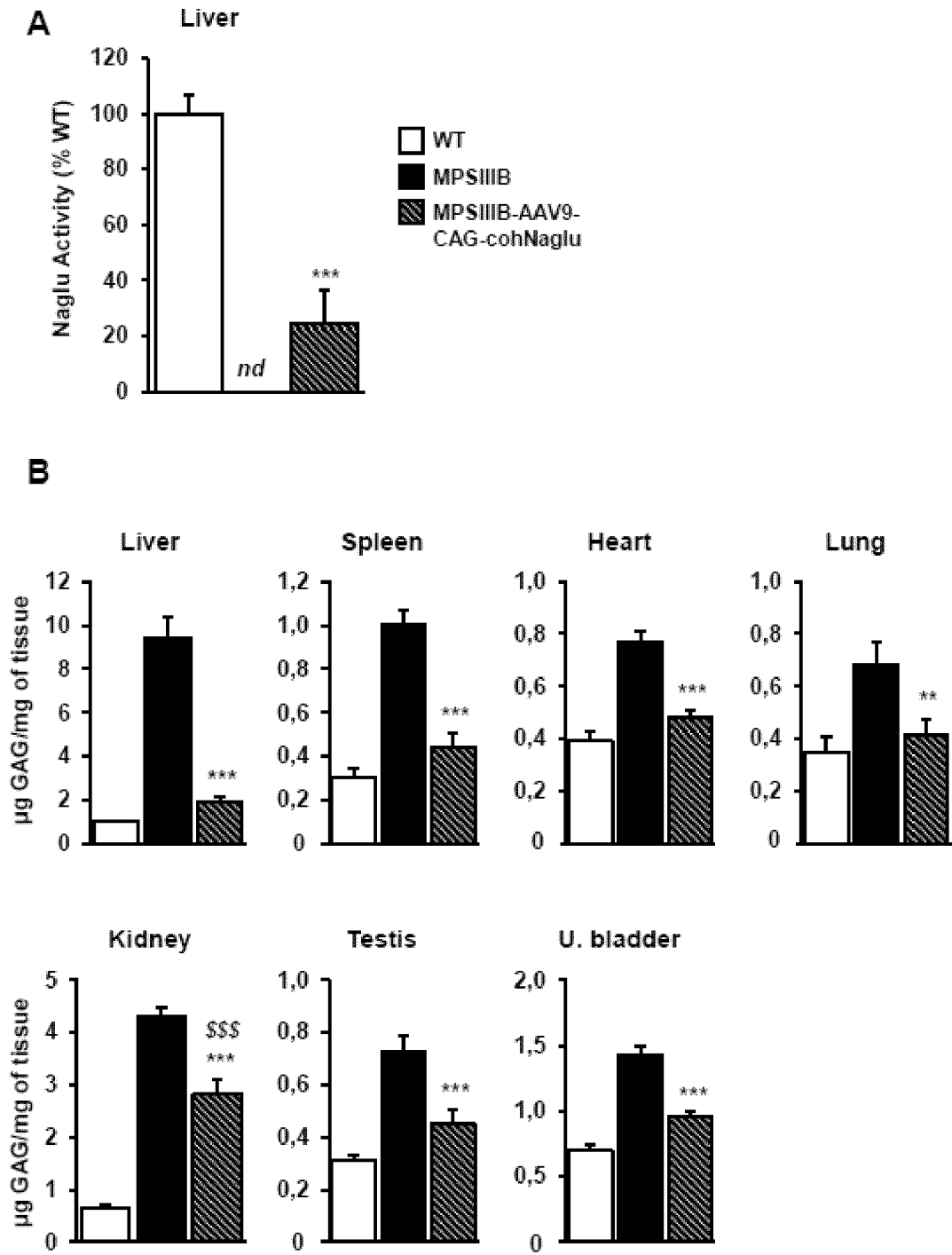


Figure 10

HDTV – Codon-optimized human NAGLU version2

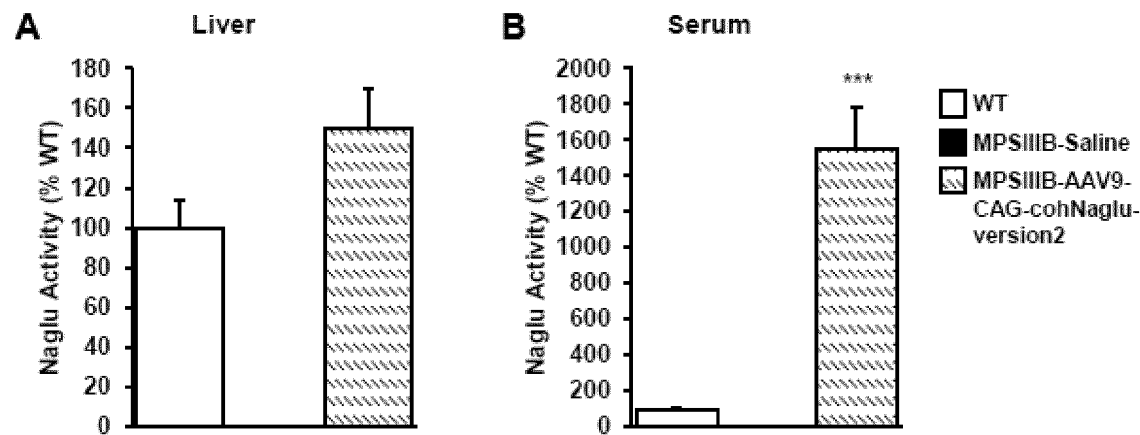


Figure 11

HDTV – Codon-optimized human NAGLU version3

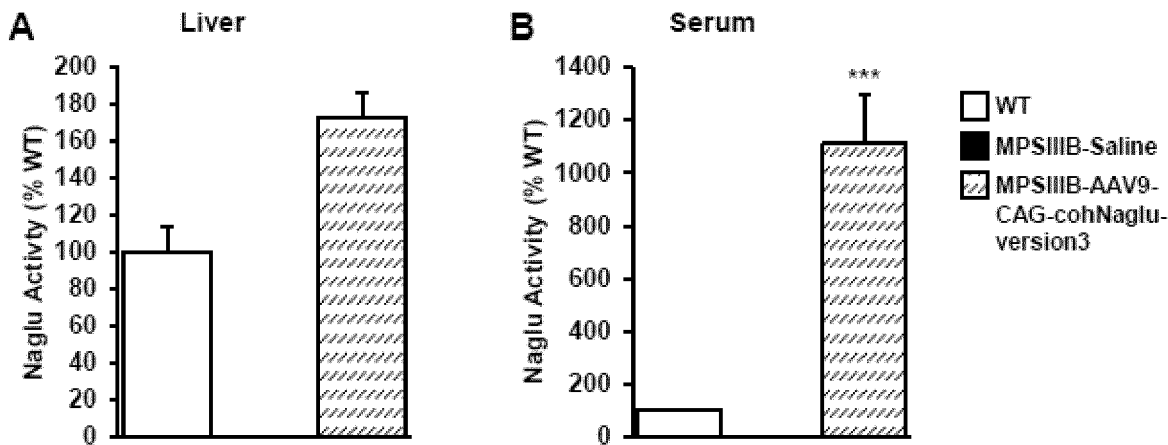
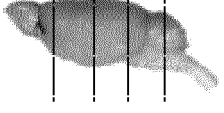


Figure 12

IC – Codon-optimized murine NAGLU**A**

Brain Section 	Vector genomes /diploid genome	
	<i>Males</i>	<i>Females</i>
I	0.14 ± 0.04	0.13 ± 0.03
II	0.09 ± 0.01	0.12 ± 0.04
III	0.13 ± 0.04	0.19 ± 0.10
IV	1.61 ± 0.73	0.80 ± 0.55
V	0.94 ± 0.15	1.35 ± 0.74
Spinal cord	0.14 ± 0.07	0.07 ± 0.02

B

Tissue	Vector genomes /diploid genome	
	<i>Males</i>	<i>Females</i>
Liver	0.78 ± 0.33	0.72 ± 0.33
Spleen	0.03 ± 0.02	0.02 ± 0.01
Heart	0.01 ± 0.00	0.01 ± 0.01
Kidney	0.01 ± 0.00	0.01 ± 0.00
Lung	0.01 ± 0.00	0.01 ± 0.00
Adrenal gland	0.04 ± 0.01	0.10 ± 0.01
Mandibular lymph node	0.12 ± 0.02	0.12 ± 0.02
Inguinal lymph node	0.01 ± 0.00	0.02 ± 0.01
White adipose tissue	0.02 ± 0.00	0.03 ± 0.01
Bone marrow	ND	ND
Skin	0.01 ± 0.00	ND
Thymus	ND	ND
Skeletal muscle	ND	ND
Intestine	ND	ND
Pancreas	ND	ND
Urinary bladder	ND	ND
Epididymus	ND	ND
Testicle	ND	ND
Oviduct	ND	ND

Figure 13

IC – Codon-optimized murine NAGLU

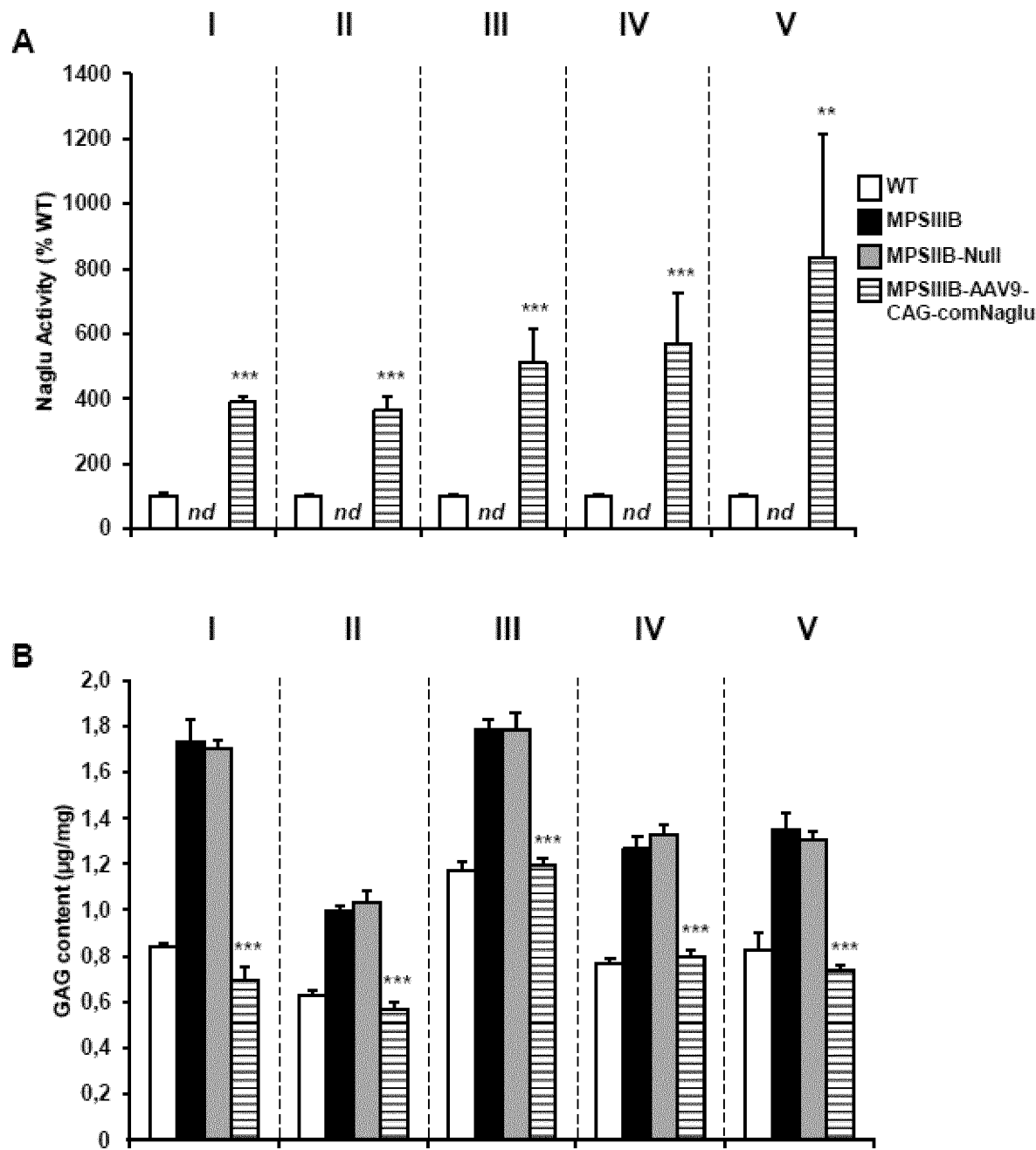
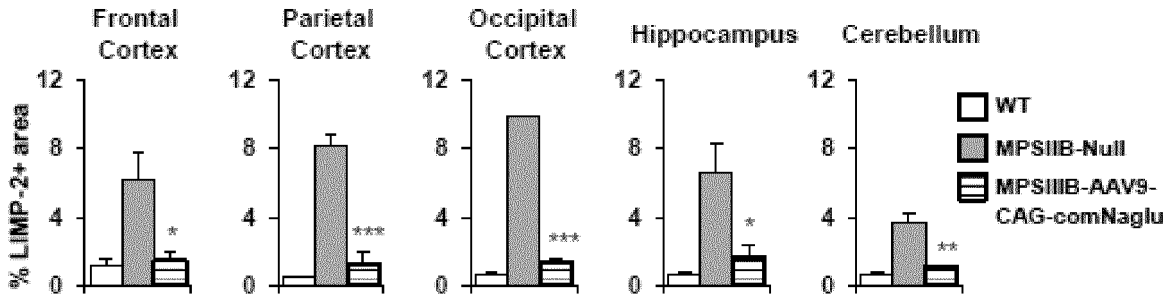


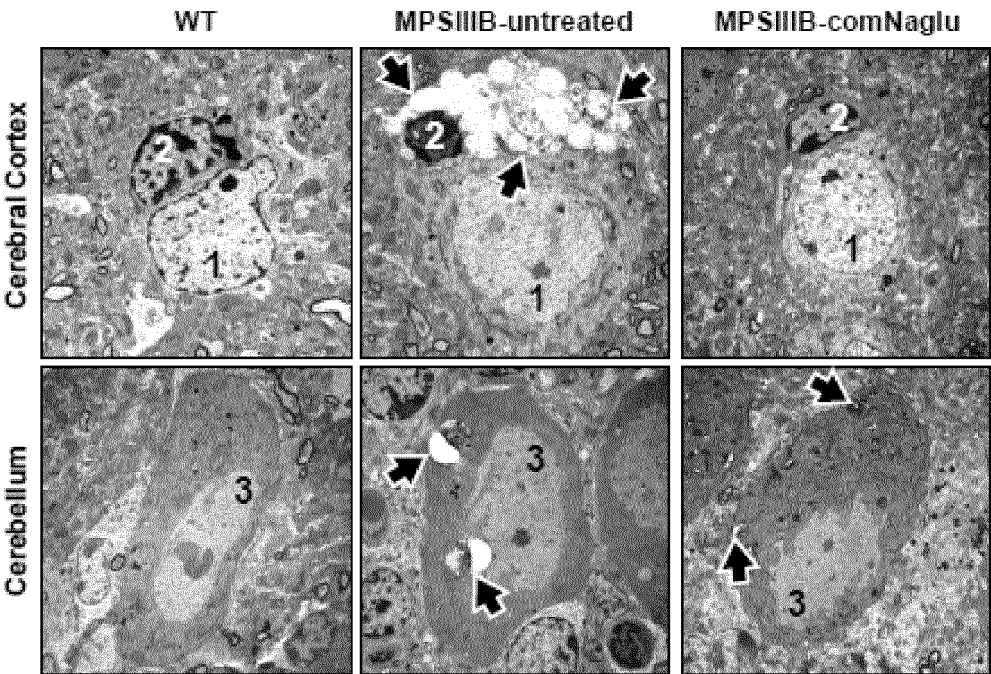
Figure 14

IC – Codon-optimized murine NAGLU

A



B



C

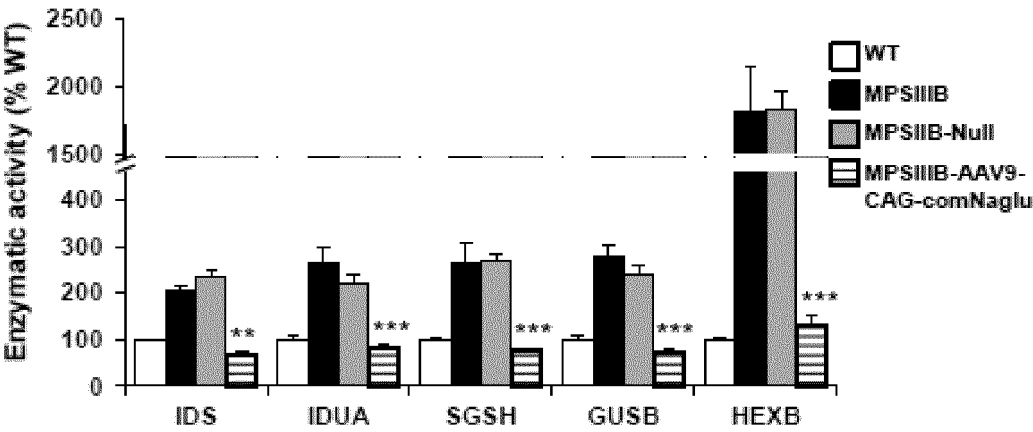


Figure 15 IC – Codon-optimized murine NAGLU

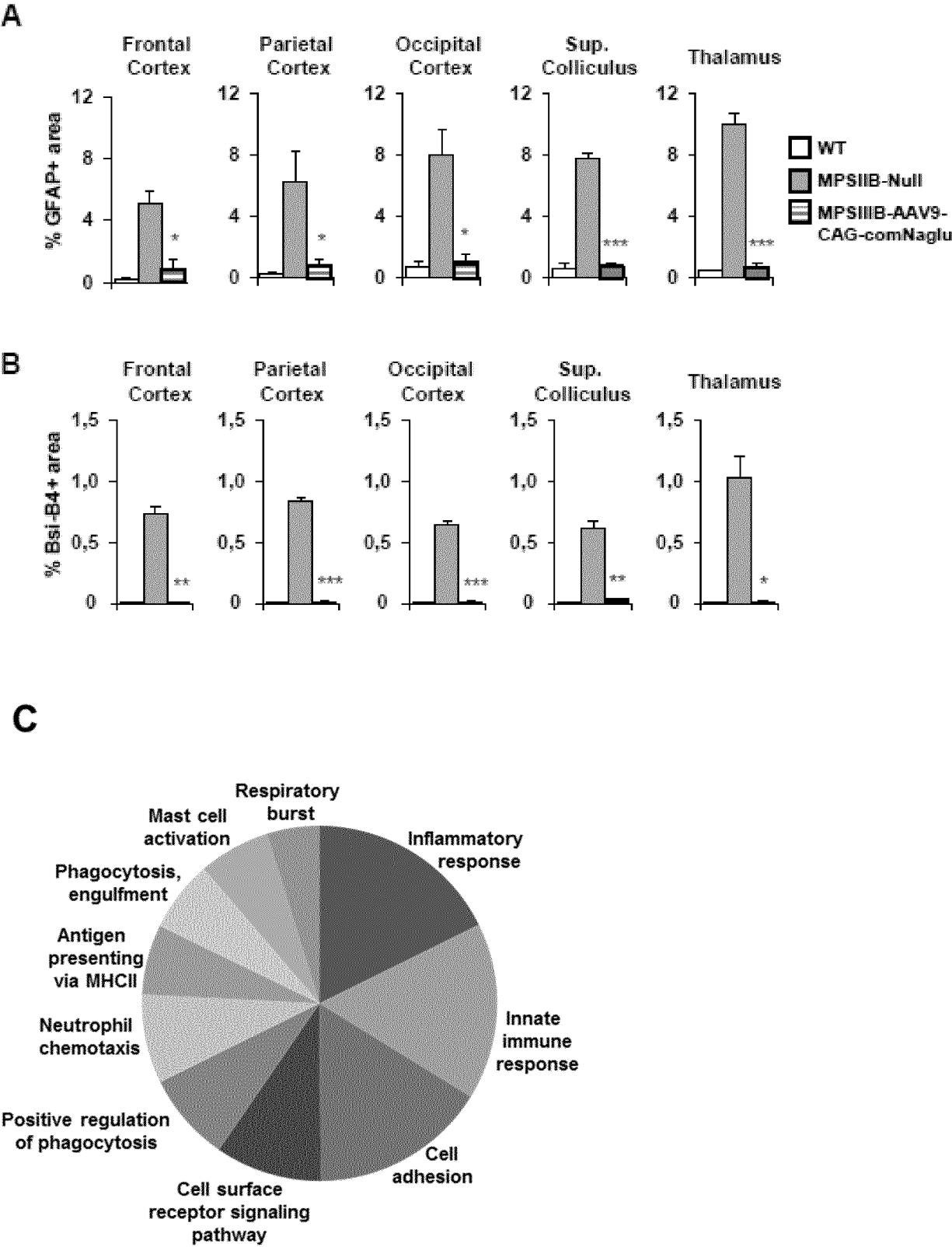


Figure 15

D

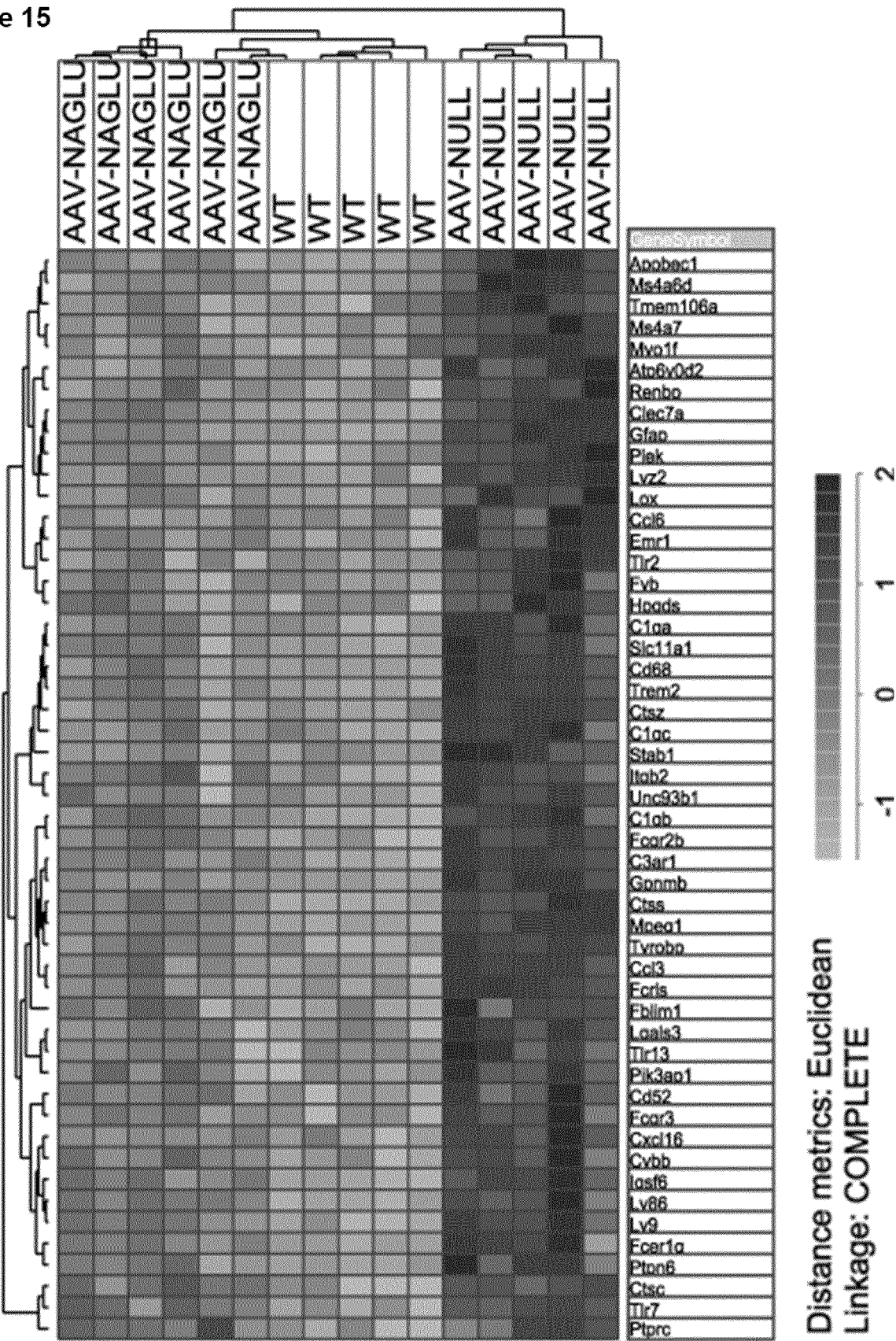


Figure 16
IC – Codon-optimized murine NAGLU

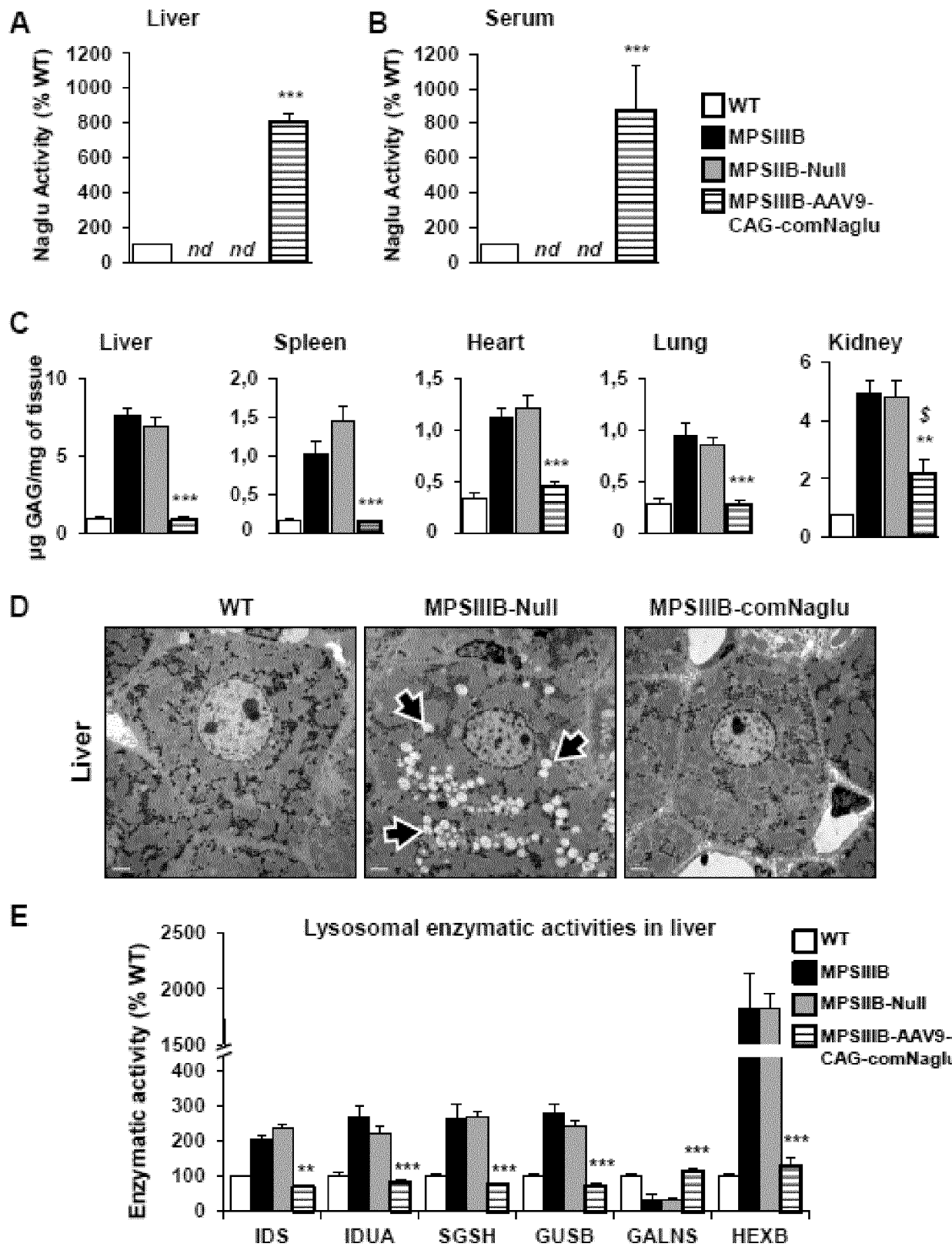


Figure 17

IC – Codon-optimized murine NAGLU

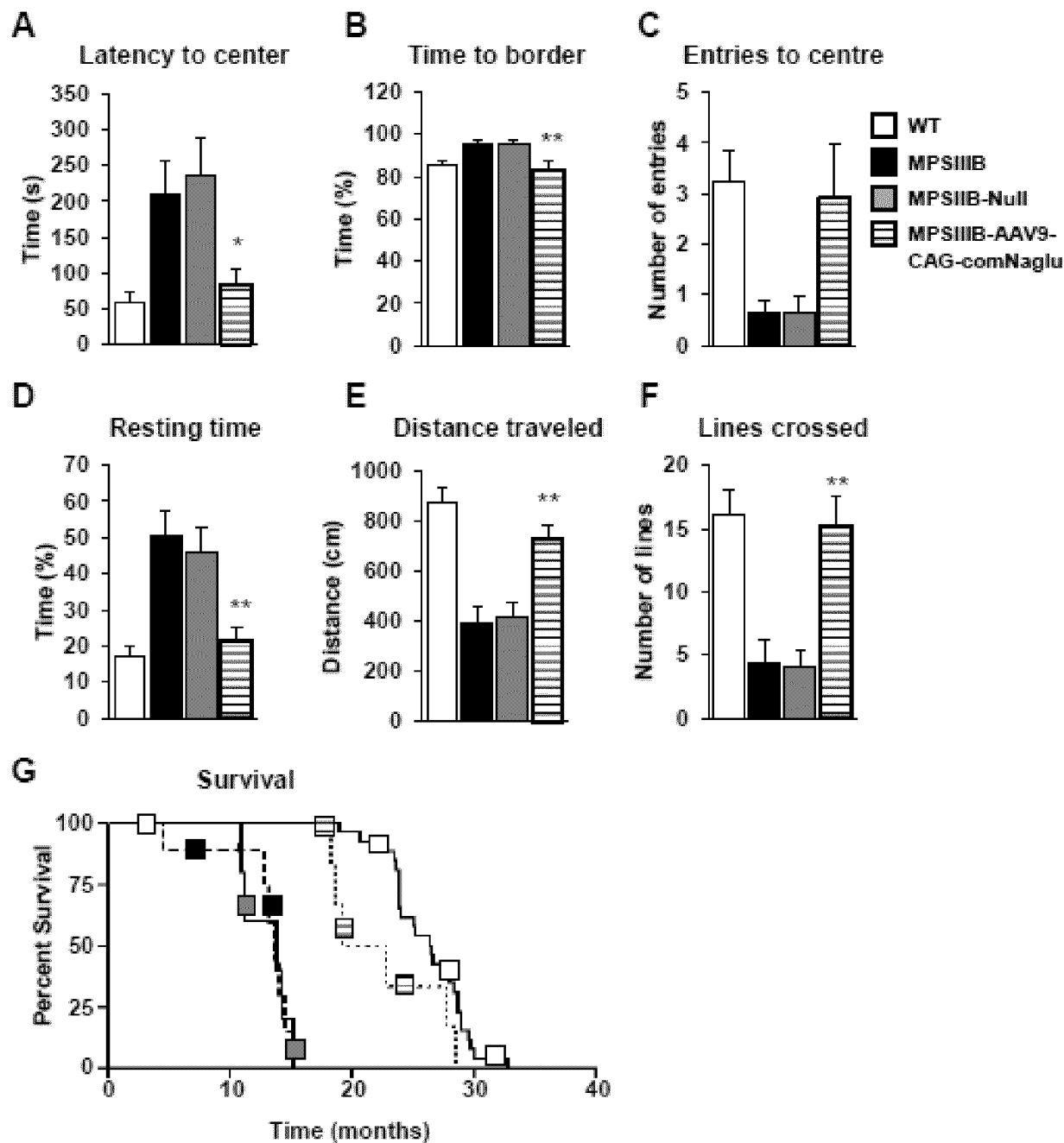


Figure 18

IC – Codon-optimized canine NAGLU

A

Anti-AAV9 Neutralizing antibodies								
Week	Non-immunized dogs				Immunized dogs			
	Dog 1		Dog 2		Dog 3		Dog 4	
	Serum	CSF	Serum	CSF	Serum	CSF	Serum	CSF
W -6	-	-	-	-	1:1	-	1:1	-
W -5	-	-	-	-	>1:316	-	>1:316	-
W -1	-	-	-	-	1:100	-	1:100	-
W 0	<1:1	1:1	<1:1	1:1	1:100	1:1	1:1000	1:1
W 1	>1:31,6	1:1	>1:31,6	1:1	1:10000	1:1	1:1000	1:1

B

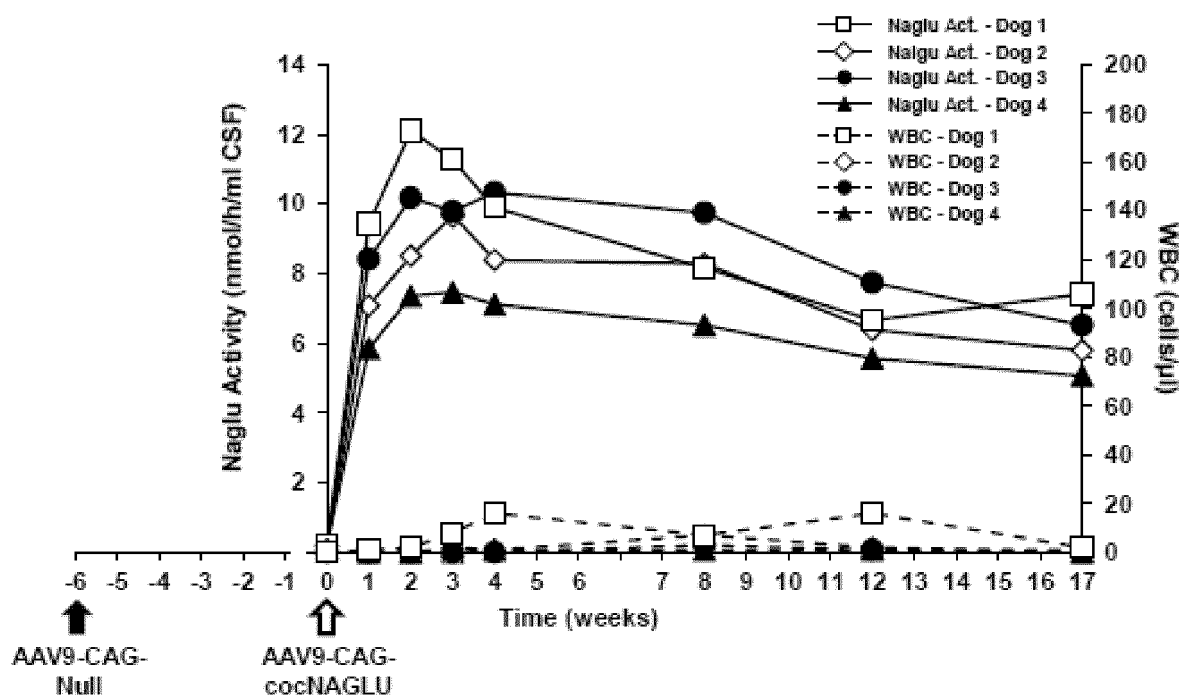
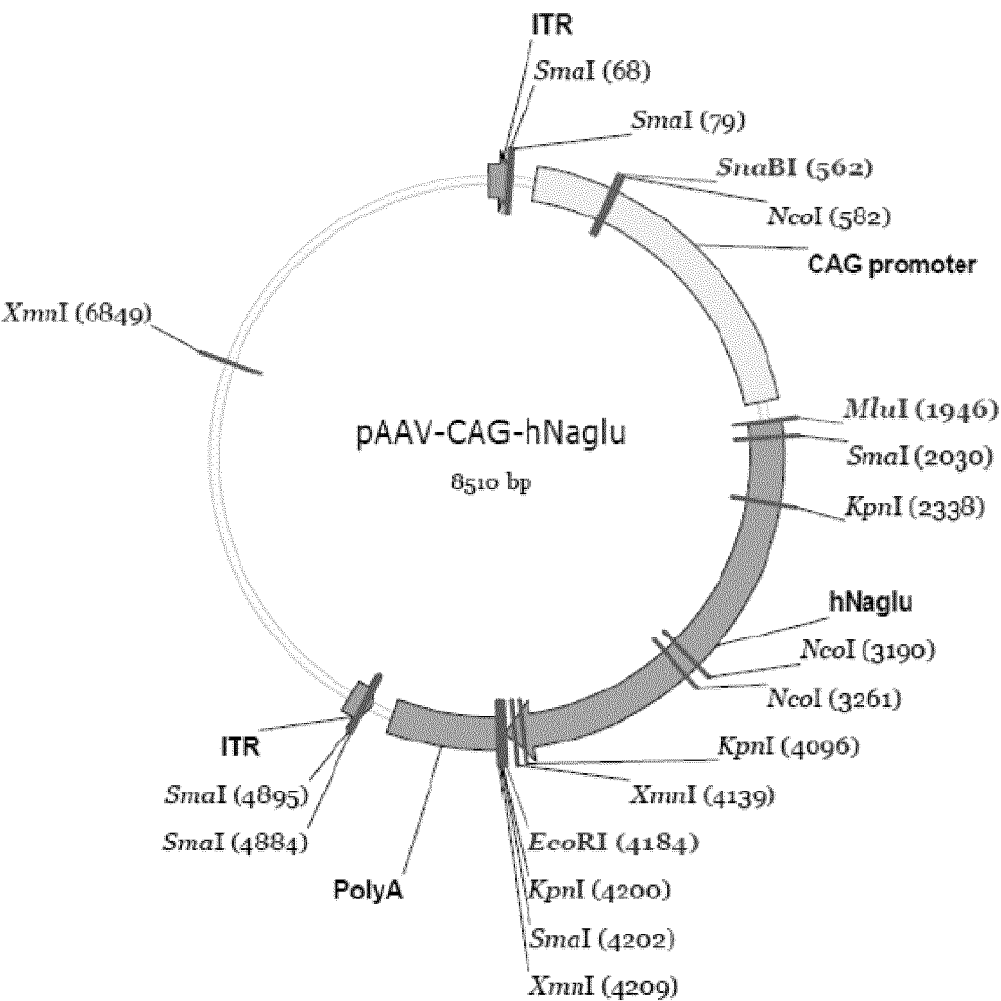


Figure 19

Human Naglu

A



B

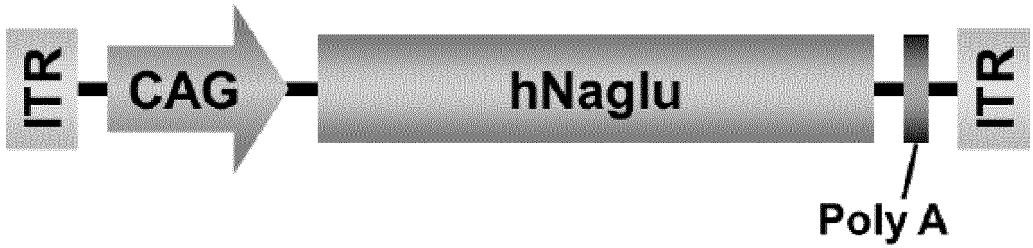


Figure 20

Codon-optimized human Naglu

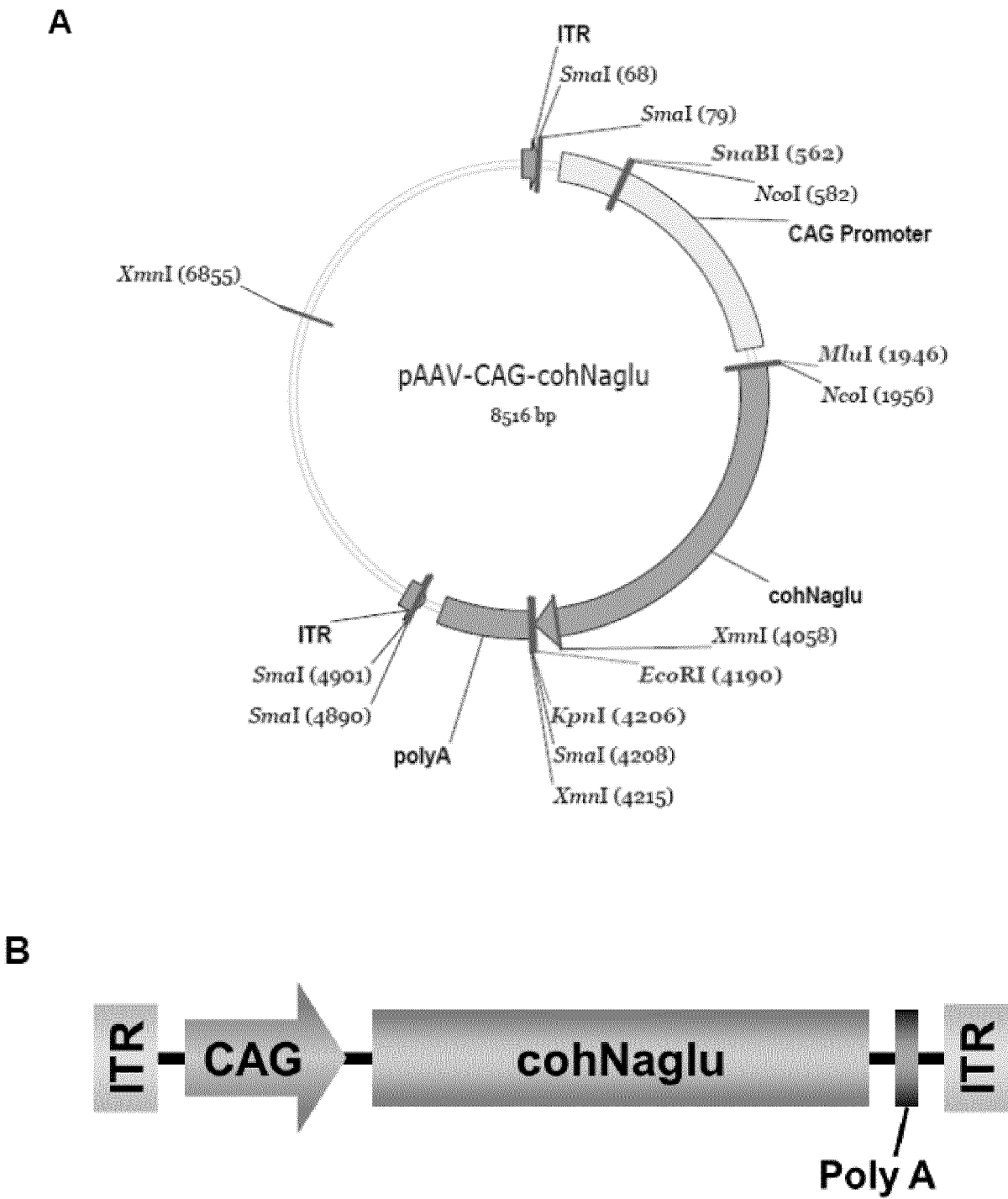


Figure 21

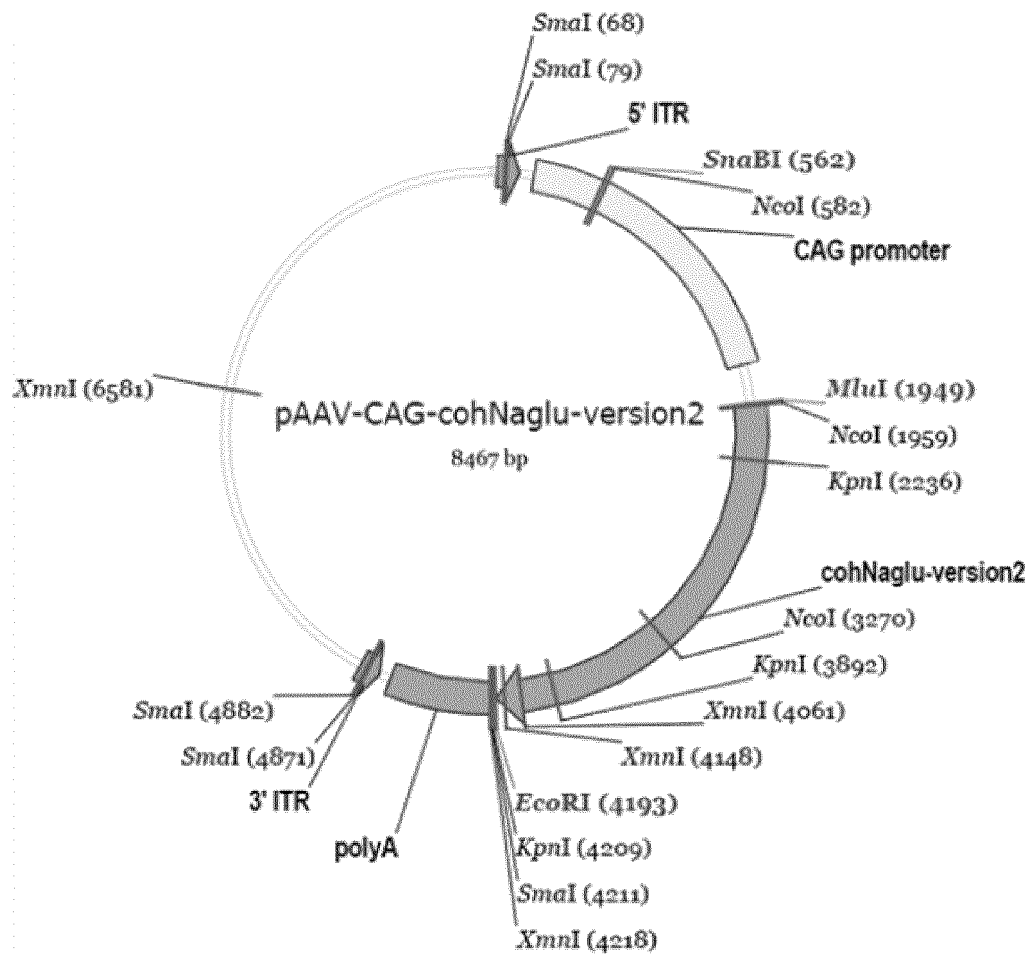
Codon-optimized human Naglu version2**A****B**

Figure 22

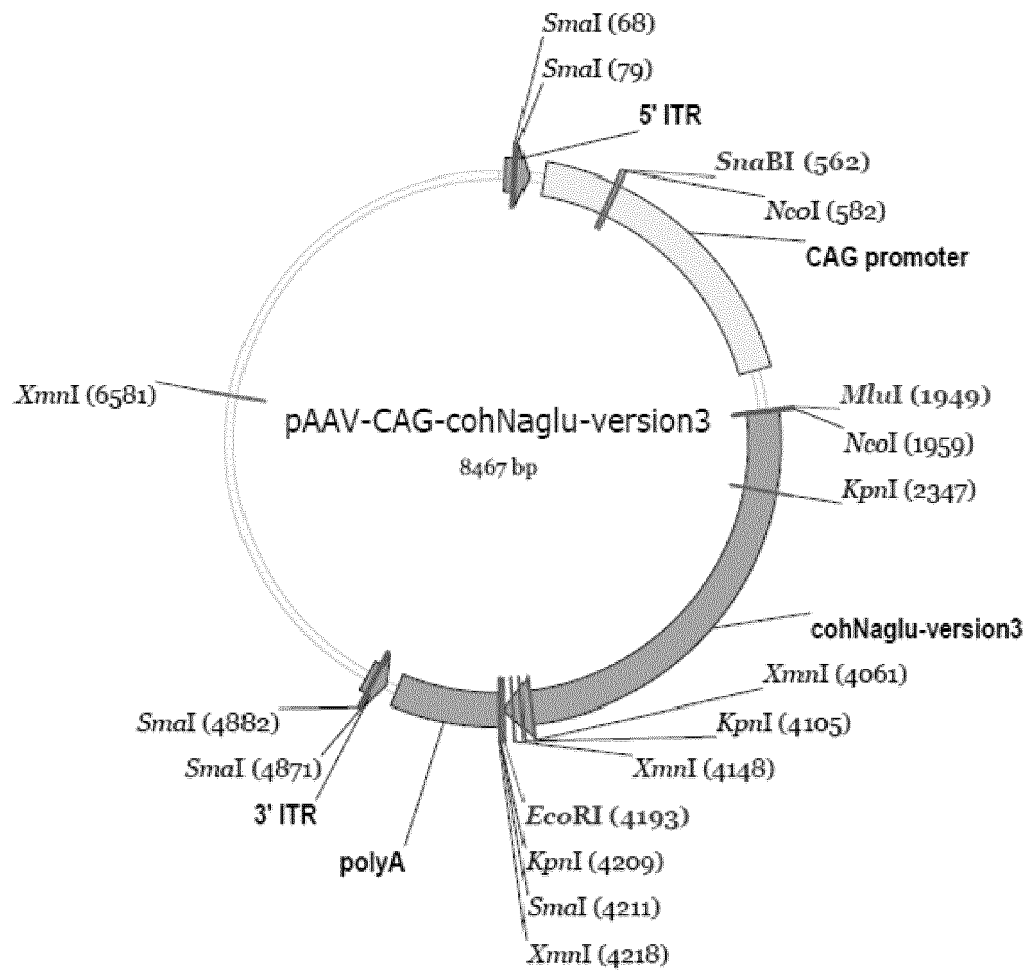
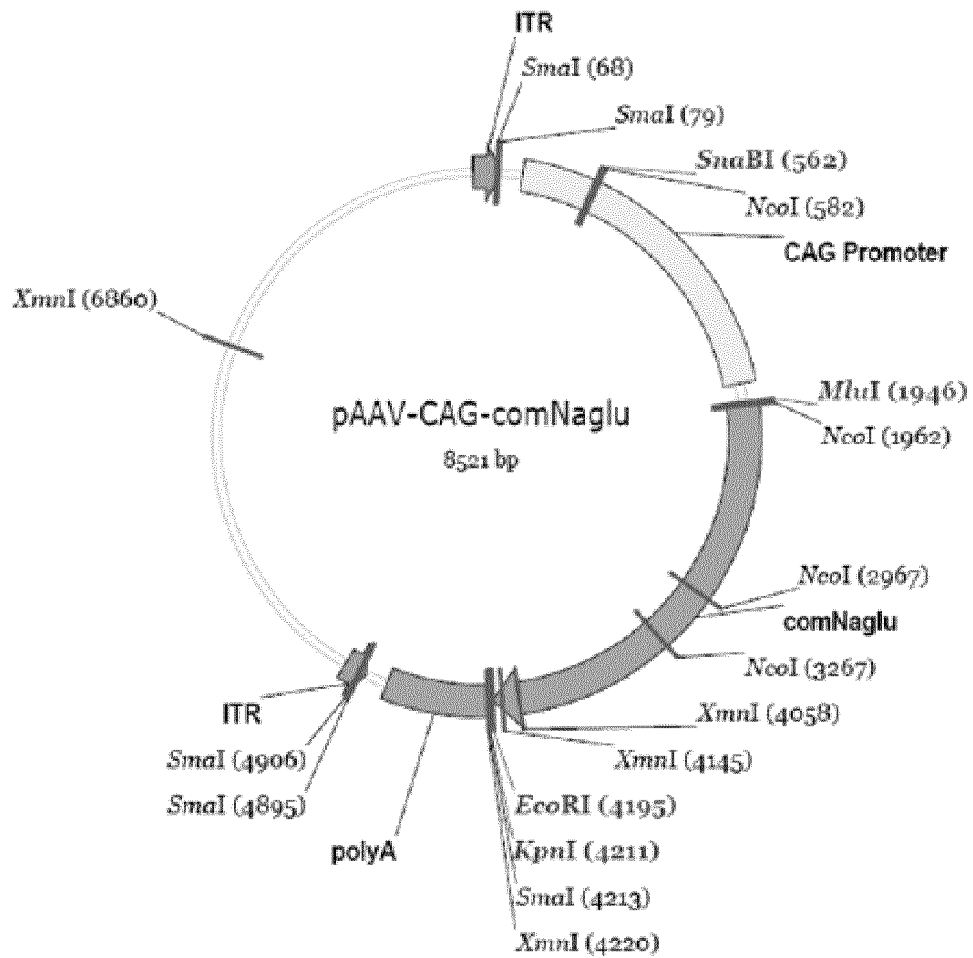
Codon-optimized human Naglu version3**A****B**

Figure 23

Codon-optimized murine Naglu

A



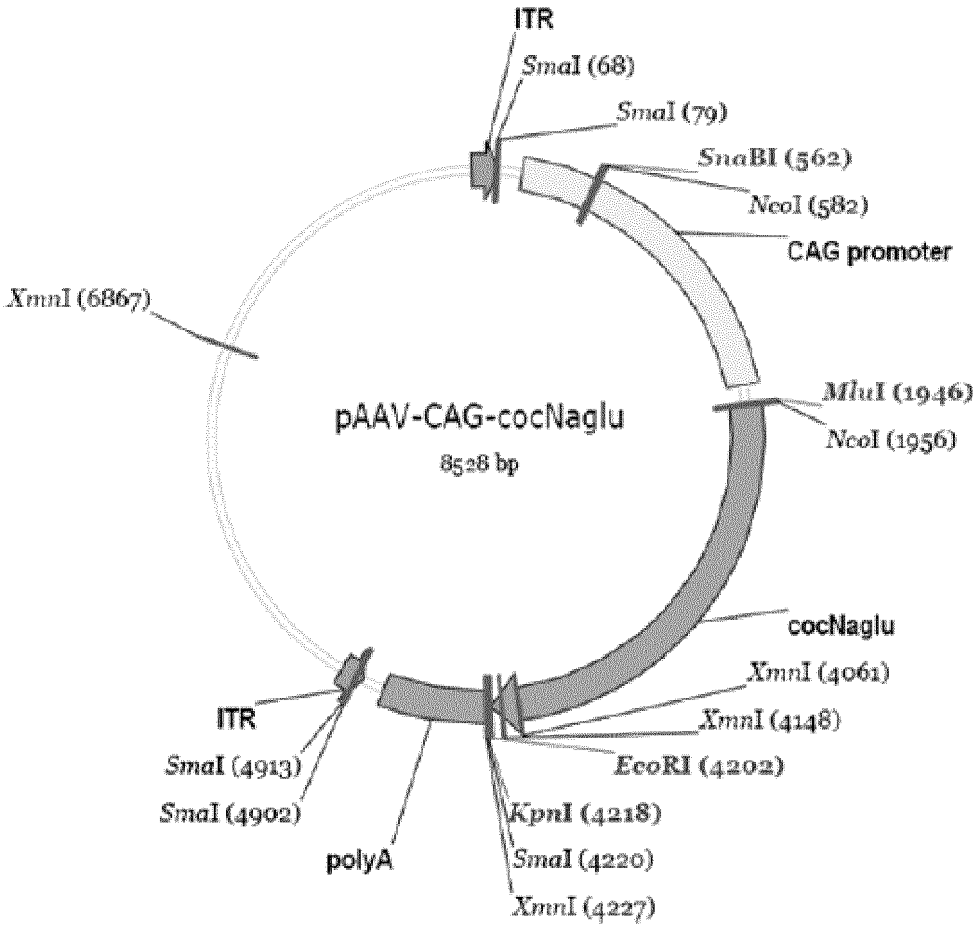
B



Figure 24

Codon-optimized canine Naglu

A



B

