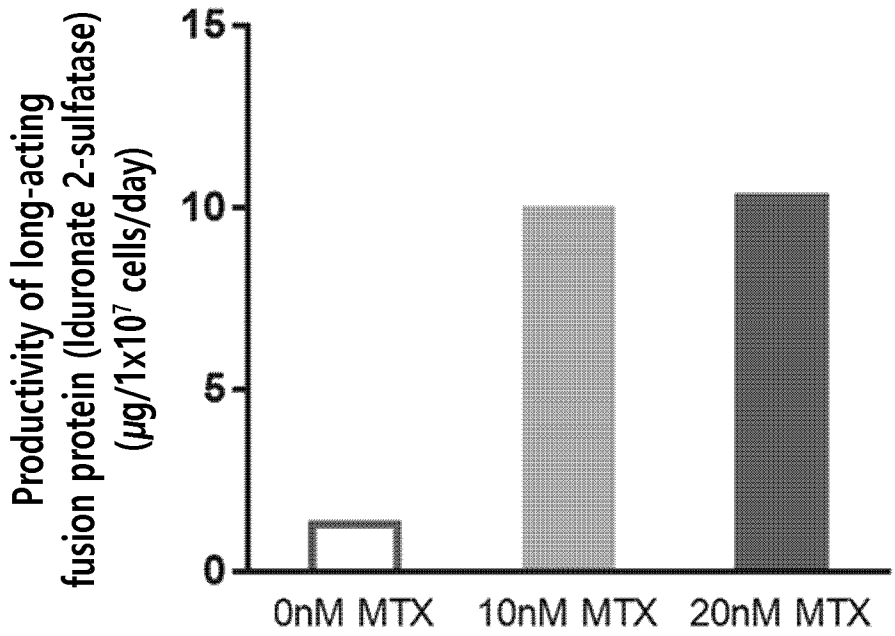
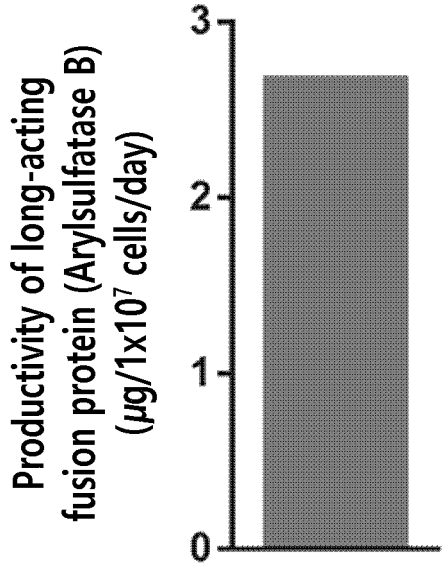
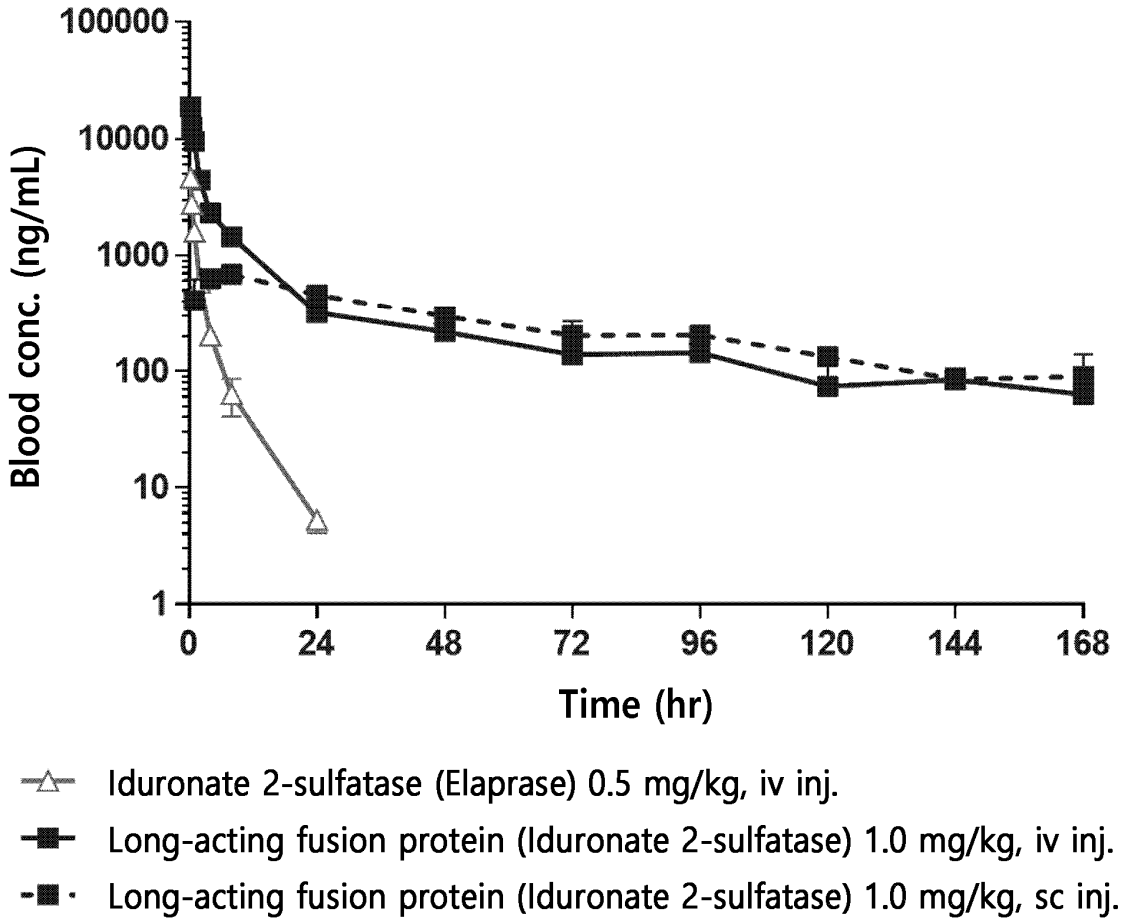
[FIG. 1]


Productivity of long-acting fusion protein (Iduronate 2-sulfatase) (μg/1x10⁷ cells/day)
15
10
5
0
0nM MTX
10nM MTX
20nM MTX

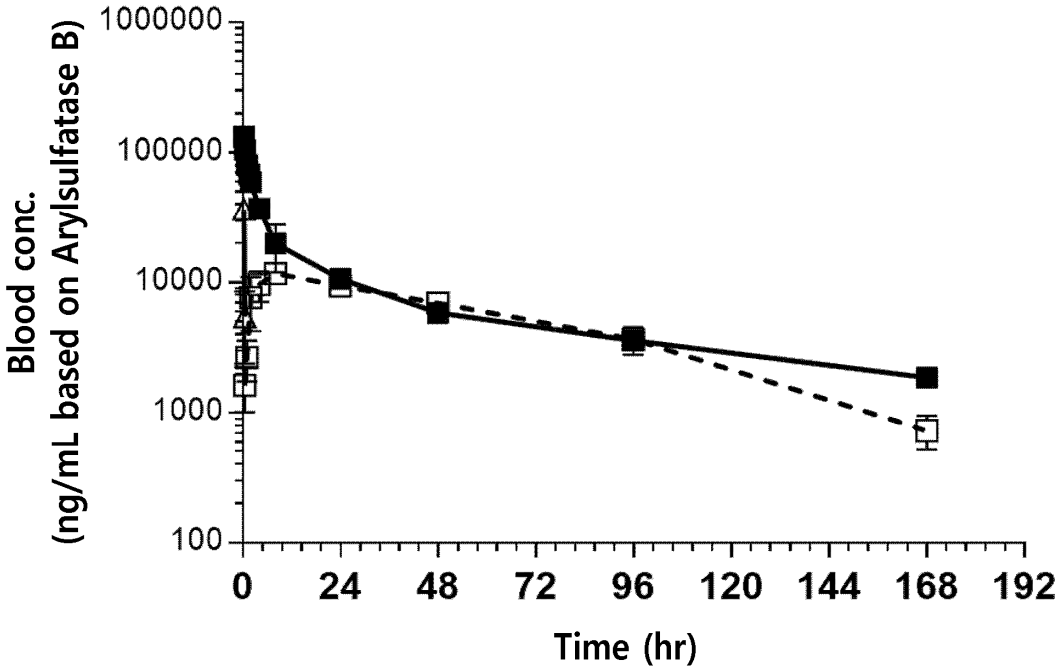
[FIG. 2]


Productivity of long-acting fusion protein (Arylsulfatase B) (μg/1x10⁷ cells/day)
3
2
1
0

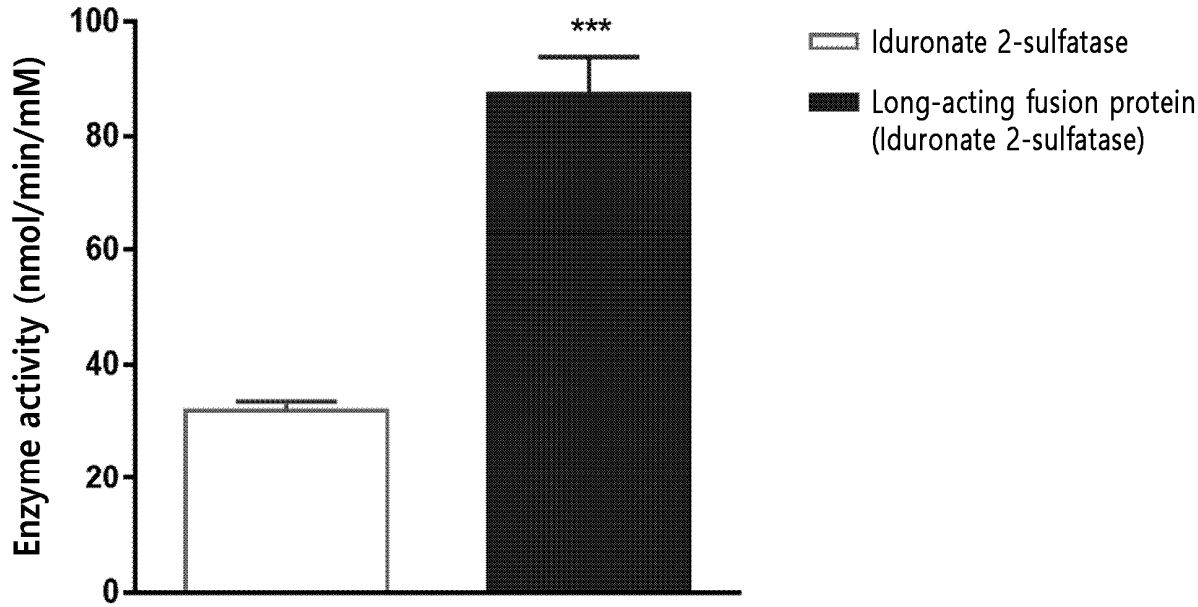
[FIG. 3]


100000
10000
1000
100
10
1
Blood conc. (ng/mL)
0
24
48
72
96
120
144
168
Time (hr)
Iduronate 2-sulfatase (Elaprase) 0.5 mg/kg, iv inj.
Long-acting fusion protein (Iduronate 2-sulfatase) 1.0 mg/kg, iv inj.
Long-acting fusion protein (Iduronate 2-sulfatase) 1.0 mg/kg, sc inj.

[FIG. 4]

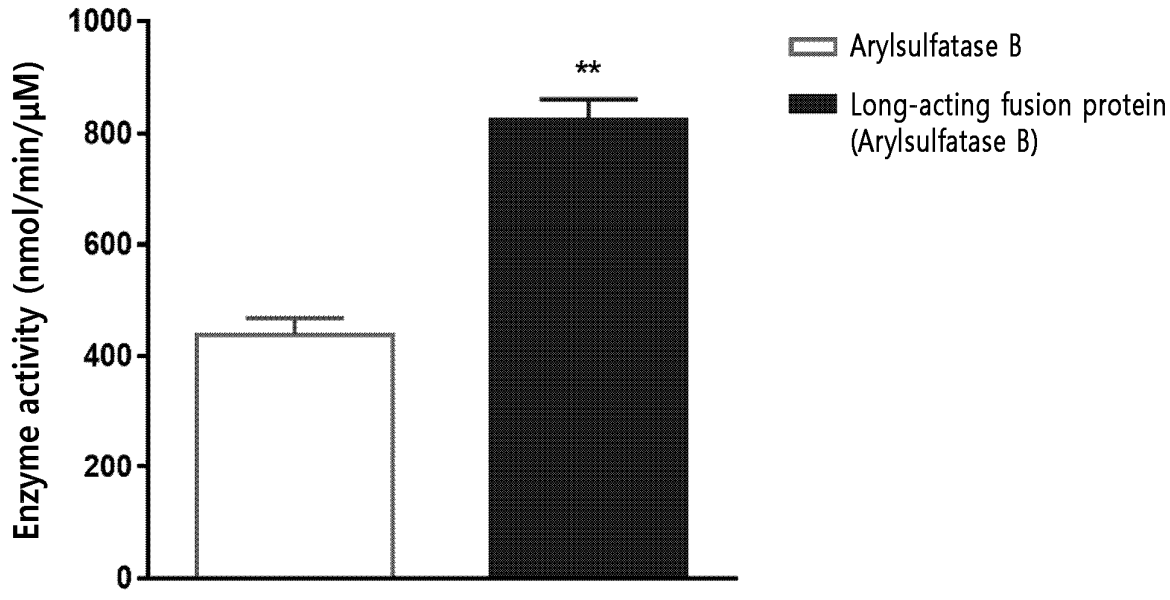

Blood conc.
(ng/mL based on Arylsulfatase B)
1000000
100000
10000
1000
100
0
24
48
72
96
120
144
168
192
Time (hr)
Arylsulfatase B (Naglazyme) 5.0 mg/kg, iv inj.
Long-acting fusion protein (Arylsulfatase B) 5.0 mg/kg, iv inj.
Long-acting fusion protein (Arylsulfatase B) 5.0 mg/kg, sc inj.

[FIG. 5]



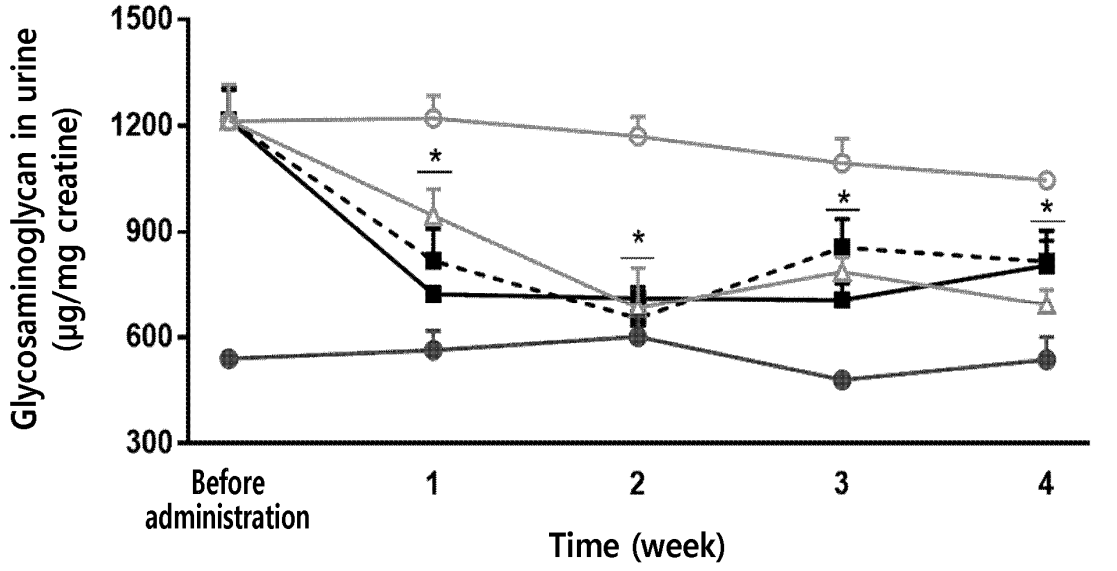
***p<0.001 vs. Iduronate 2-sulfatase by unpaired student T-test

[FIG. 6]



**p<0.01 vs. Arylsulfatase B by unpaired student T-test

[FIG. 7]



Normal mouse

Iduronate 2-sulfatase-knockout mouse

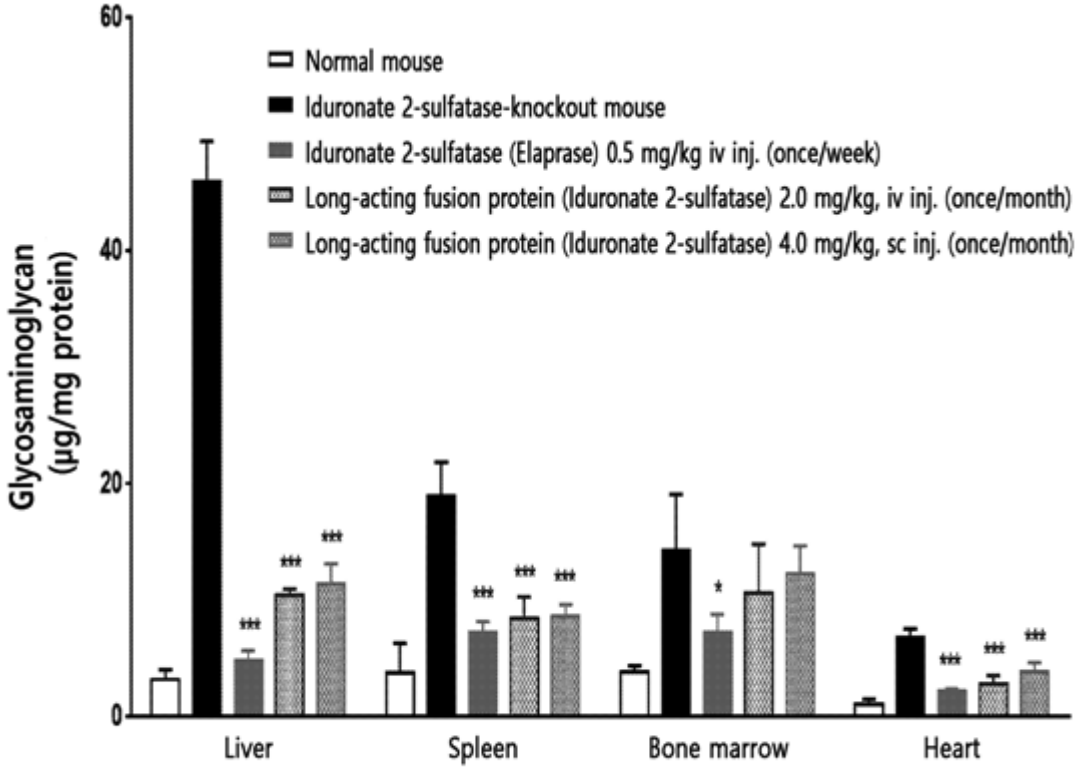
Iduronate 2-sulfatase (Elaprase) 0.5 mg/kg iv inj. (once/week)

Long-acting fusion protein (Iduronate 2-sulfatase) 2.0 mg/kg, iv inj. (once/month)

Long-acting fusion protein (Iduronate 2-sulfatase) 4.0 mg/kg, sc inj. (once/month)

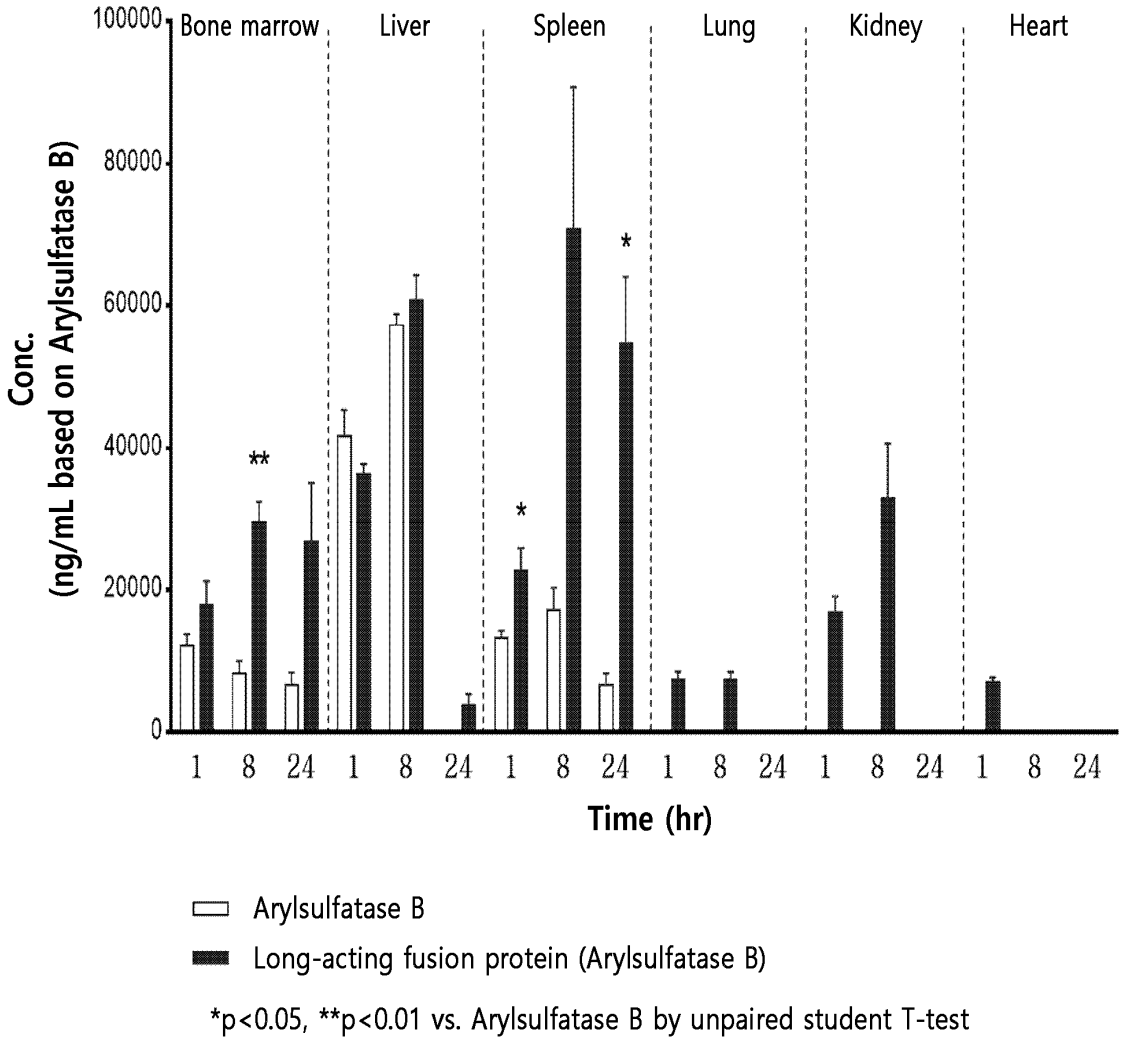
*$p<0.05$ vs. Iduronate 2-sulfatase-knockout mouse by one-way ANOVA

[FIG. 8]



*p<0.05, ***p<0.001 vs. Iduronate 2-sulfatase-knockout mouse by one-way ANOVA

[FIG. 9]


Bone marrow
Liver
Spleen
Lung
Kidney
Heart
Conc.
(ng/mL based on Arylsulfatase B)
100000
80000
60000
40000
20000
0
**
*
*
1 8 24 1 8 24 1 8 24 1 8 24 1 8 24 1 8 24
Time (hr)
Arylsulfatase B
Long-acting fusion protein (Arylsulfatase B)
*p<0.05, **p<0.01 vs. Arylsulfatase B by unpaired student T-test