FIG. 1

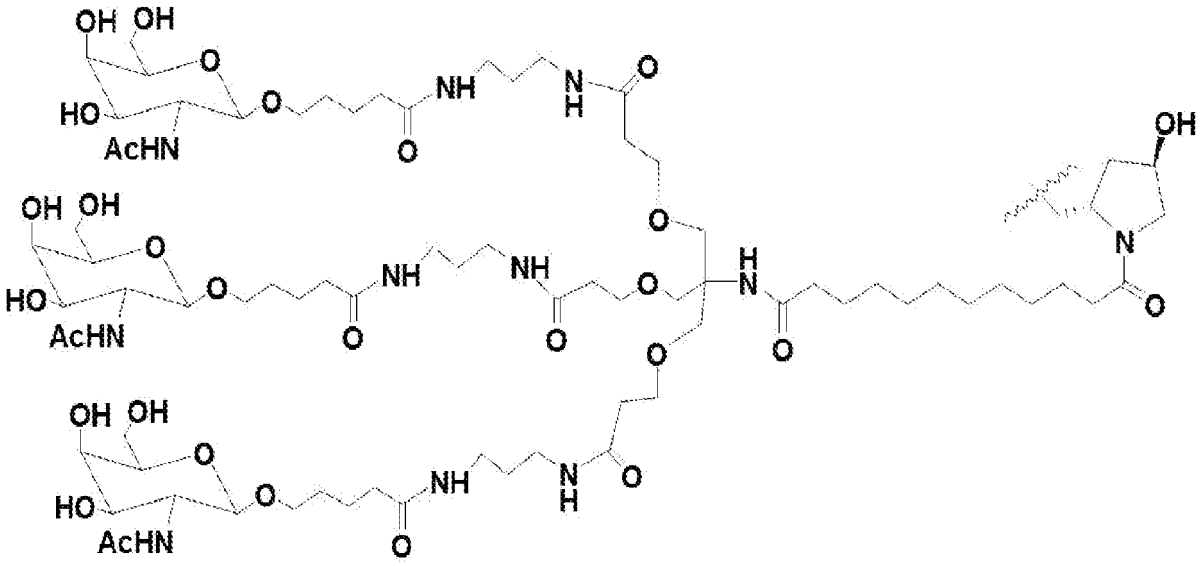

OH
OH
O
HO
AcHN
O
NH
O
N
H
O
OH
O
OH
O
HO
AcHN
O
NH
O
NH
O
O
O
HN
O
N
O
OH
OH
O
HO
AcHN
O
NH
O
N
H
O

FIG. 2A

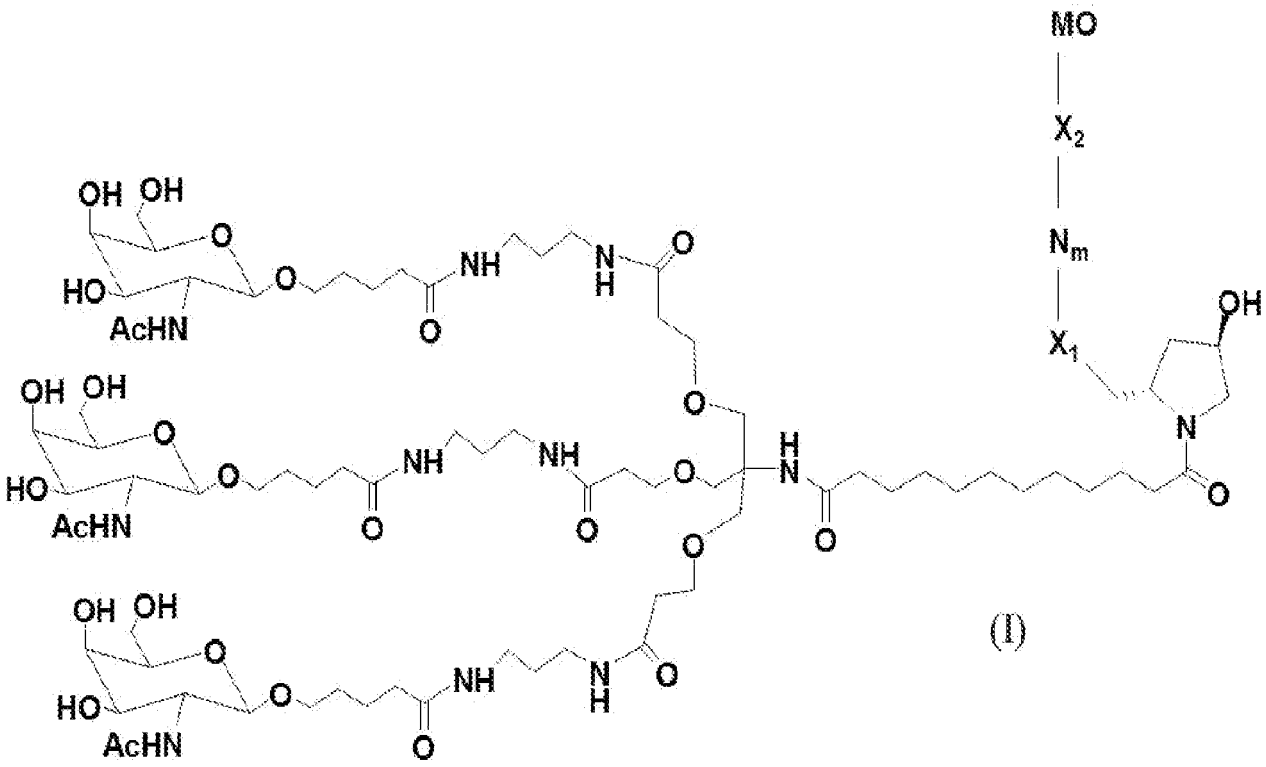


FIG. 2B

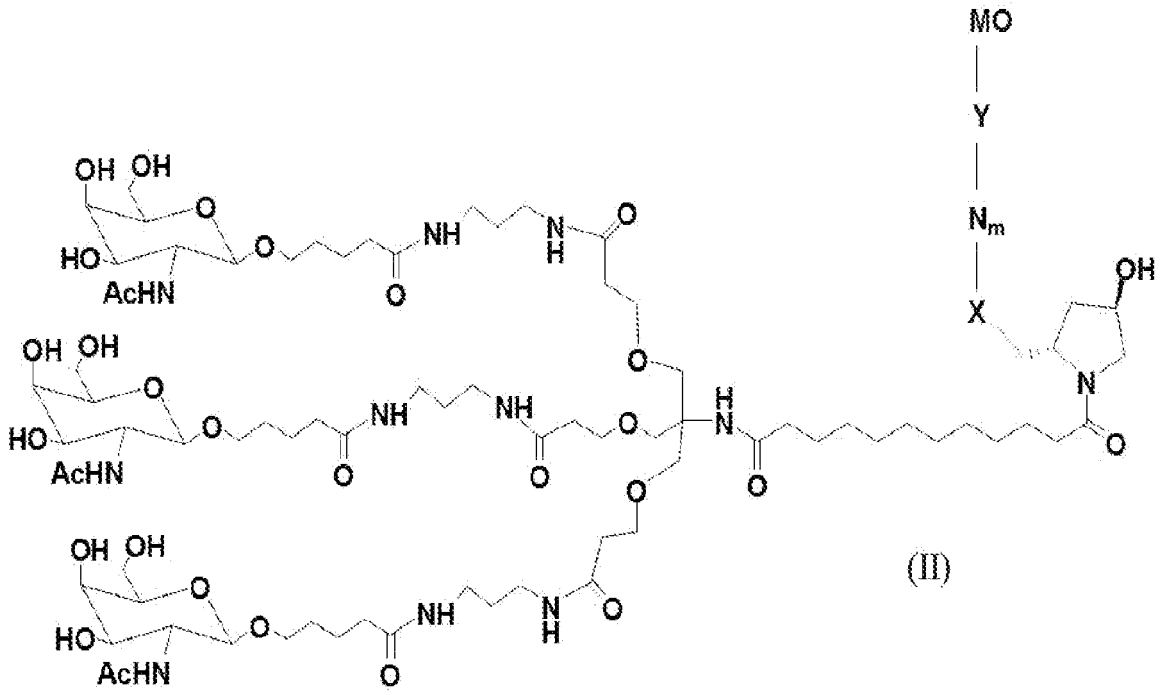


FIG. 2C

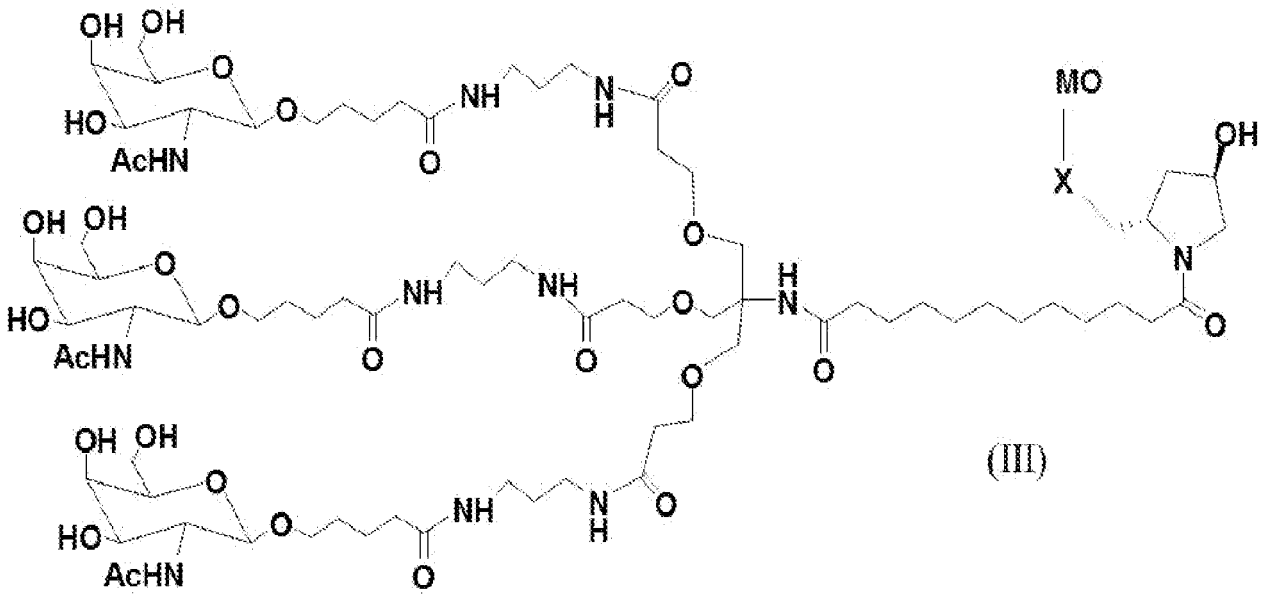

OH
OH
O
HO
AcHN
O
NH
O
N
H
O
O
NH
O
NH
O
O
O
HO
AcHN
O
NH
O
N
H
O
O
HO
AcHN
O
NH
O
O
H
N
O
MO
X
OH
N
O
(III)

FIG. 3

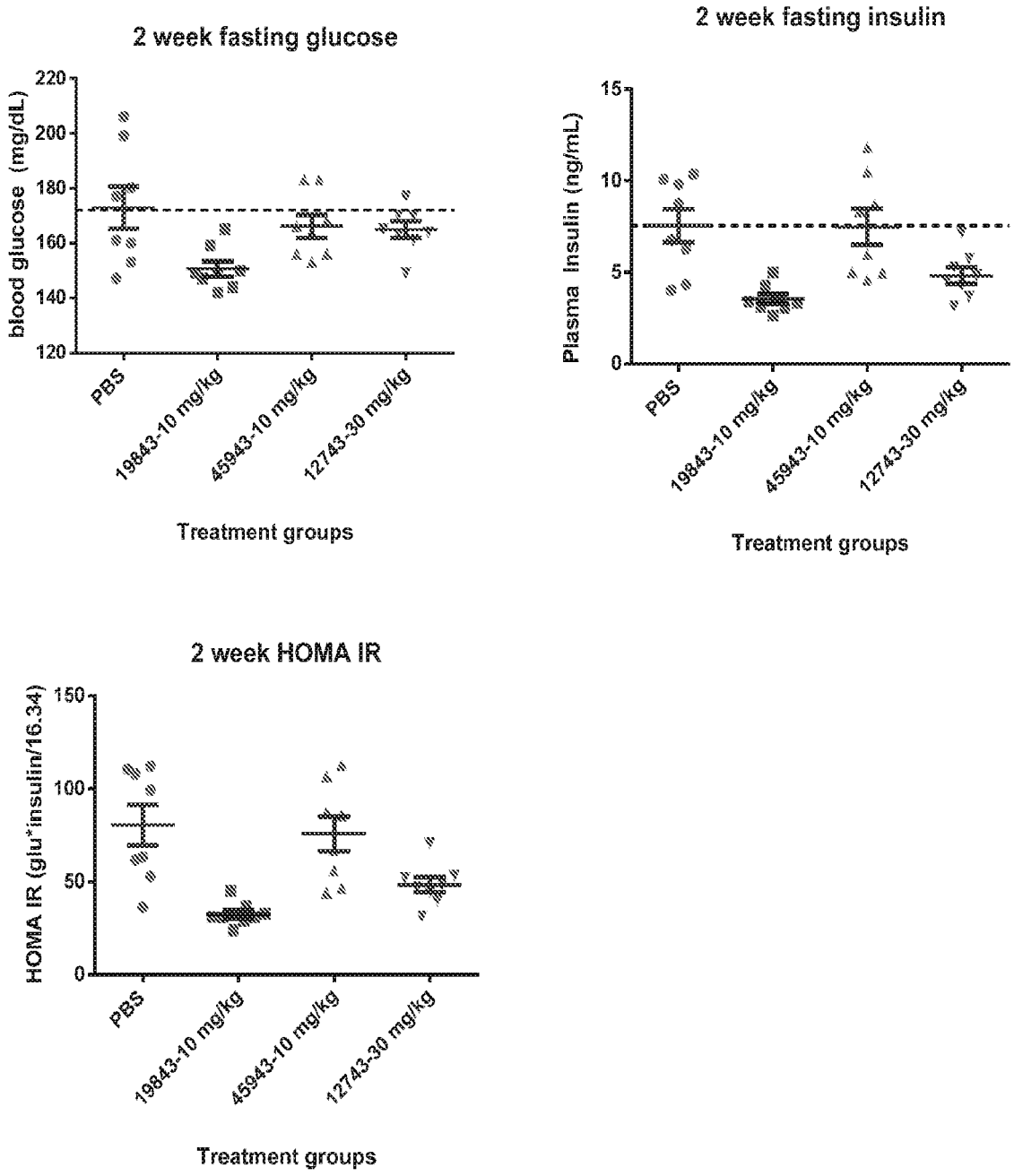
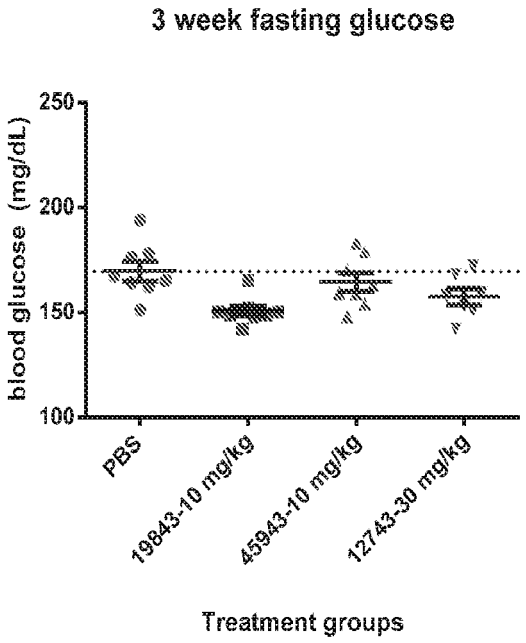
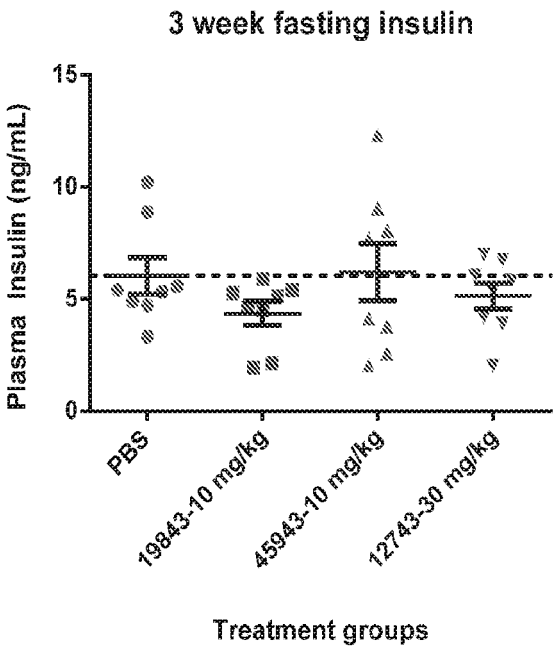

2 week fasting glucose
blood glucose (mg/dL)
220
200
180
160
140
120
PBS
19843-10 mg/kg
45943-10 mg/kg
12743-30 mg/kg
Treatment groups
2 week fasting insulin
Plasma Insulin (ng/mL)
15
10
5
0
PBS
19843-10 mg/kg
45943-10 mg/kg
12743-30 mg/kg
Treatment groups
2 week HOMA IR
HOMA IR (glu*insulin/16.34)
150
100
50
0
PBS
19843-10 mg/kg
45943-10 mg/kg
12743-30 mg/kg
Treatment groups

FIG. 4


3 week fasting glucose
blood glucose (mg/dL)
250
200
150
100
PBS
19843-10 mg/kg
45943-10 mg/kg
12743-30 mg/kg
Treatment groups


3 week fasting insulin
Plasma Insulin (ng/mL)
15
10
5
0
PBS
19843-10 mg/kg
45943-10 mg/kg
12743-30 mg/kg
Treatment groups

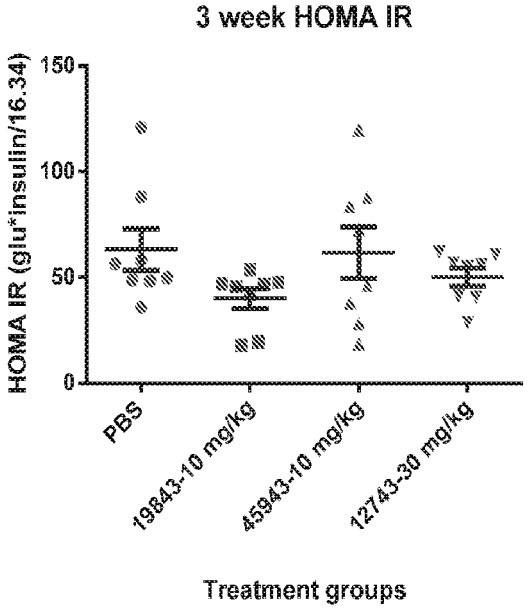
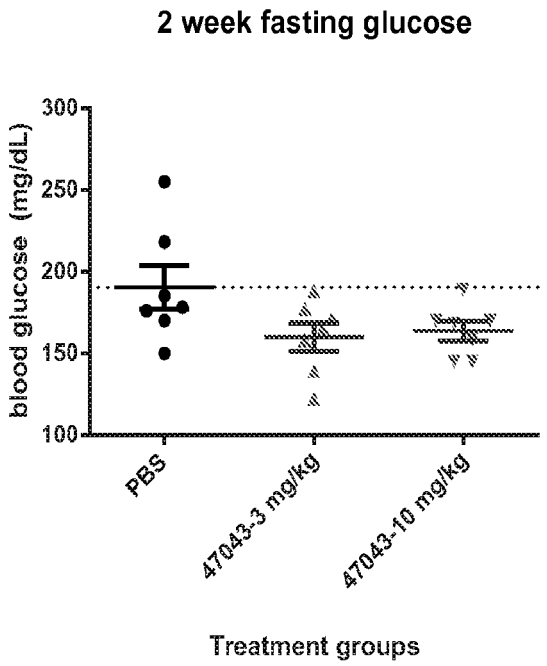
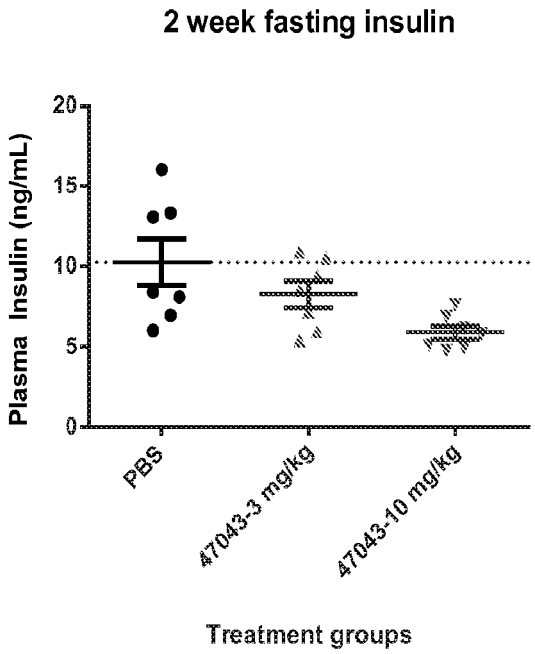

3 week HOMA IR
HOMA IR (glu*insulin/16.34)
150
100
50
0
PBS
19843-10 mg/kg
45943-10 mg/kg
12743-30 mg/kg
Treatment groups

FIG. 5


2 week fasting glucose
blood glucose (mg/dL)
300
250
200
150
100
PBS
47043-3 mg/kg
47043-10 mg/kg
Treatment groups


2 week fasting insulin
Plasma Insulin (ng/mL)
20
15
10
5
0
PBS
47043-3 mg/kg
47043-10 mg/kg
Treatment groups

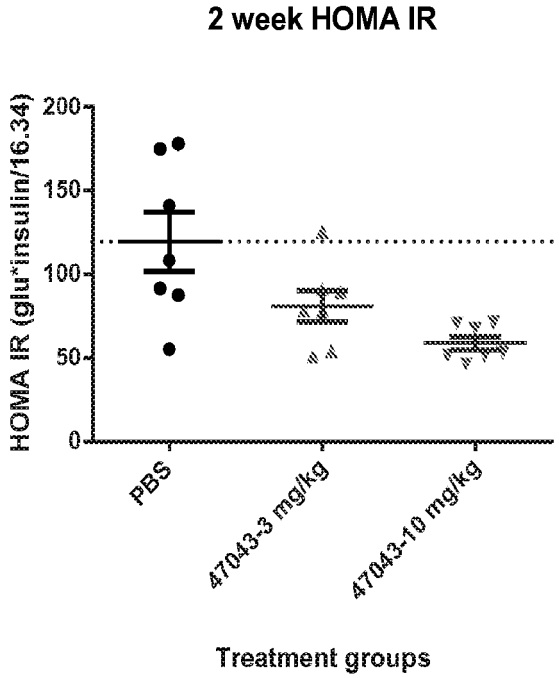

2 week HOMA IR
HOMA IR (glu*insulin/16.34)
200
150
100
50
0
PBS
47043-3 mg/kg
47043-10 mg/kg
Treatment groups

FIG. 6

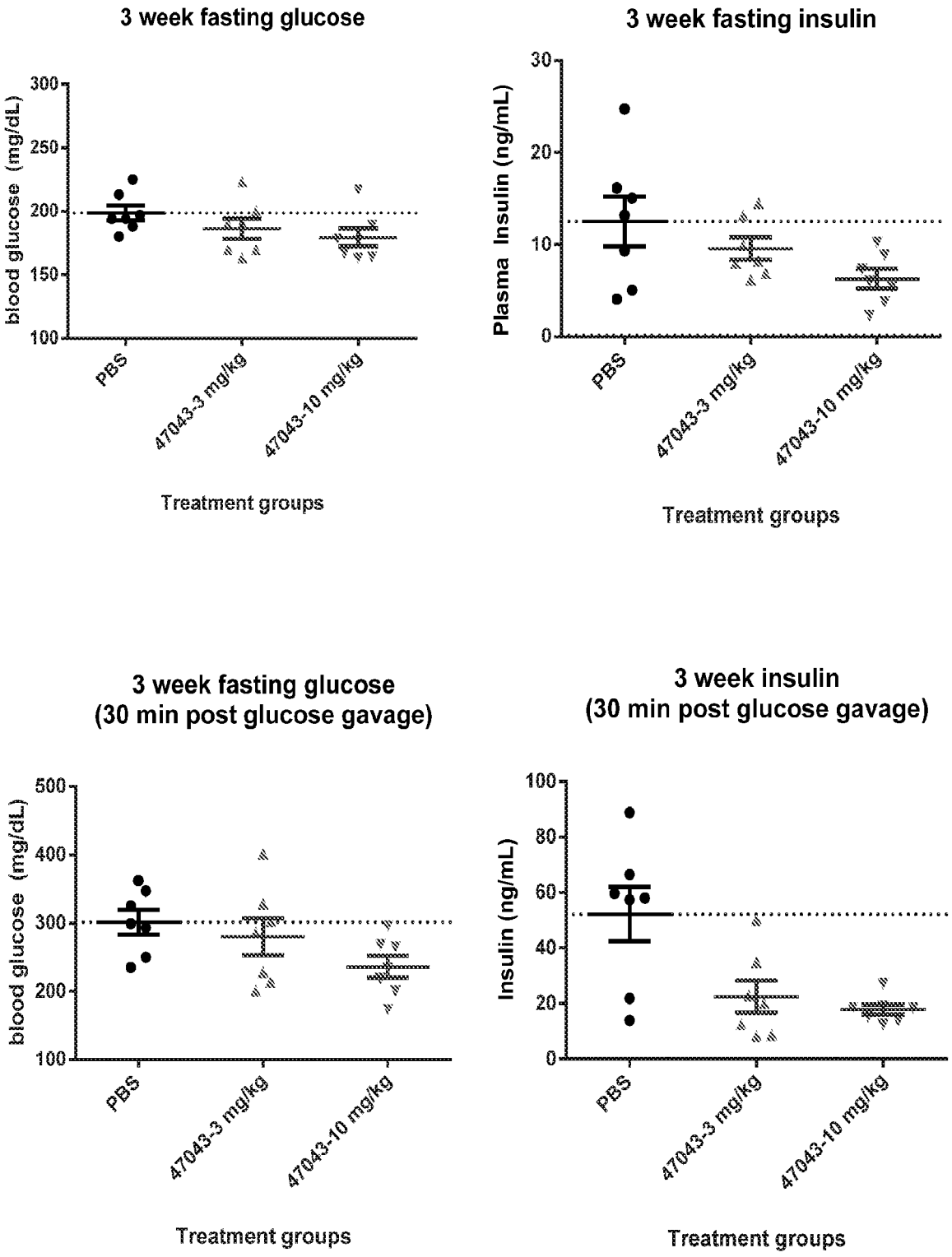

3 week fasting glucose
blood glucose (mg/dL)
300
250
200
150
100
PBS
47043-3 mg/kg
47043-10 mg/kg
Treatment groups
3 week fasting insulin
Plasma Insulin (ng/mL)
30
20
10
0
PBS
47043-3 mg/kg
47043-10 mg/kg
Treatment groups
3 week fasting glucose
(30 min post glucose gavage)
blood glucose (mg/dL)
500
400
300
200
100
PBS
47043-3 mg/kg
47043-10 mg/kg
Treatment groups
3 week insulin
(30 min post glucose gavage)
Insulin (ng/mL)
100
80
60
40
20
0
PBS
47043-3 mg/kg
47043-10 mg/kg
Treatment groups

FIG. 6 (cont.)

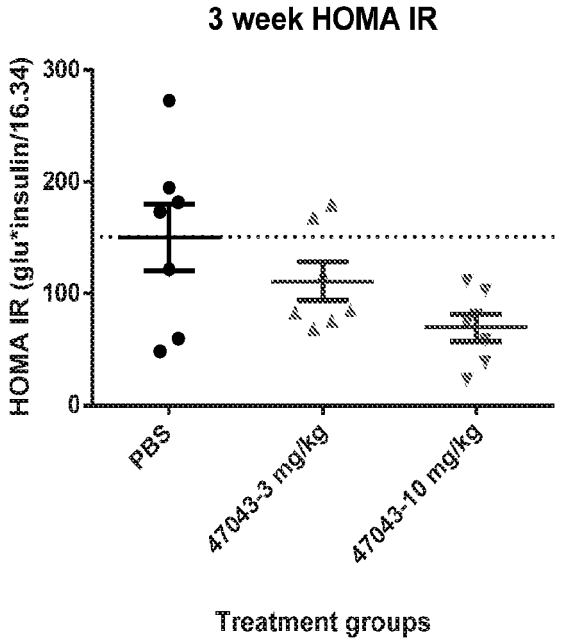
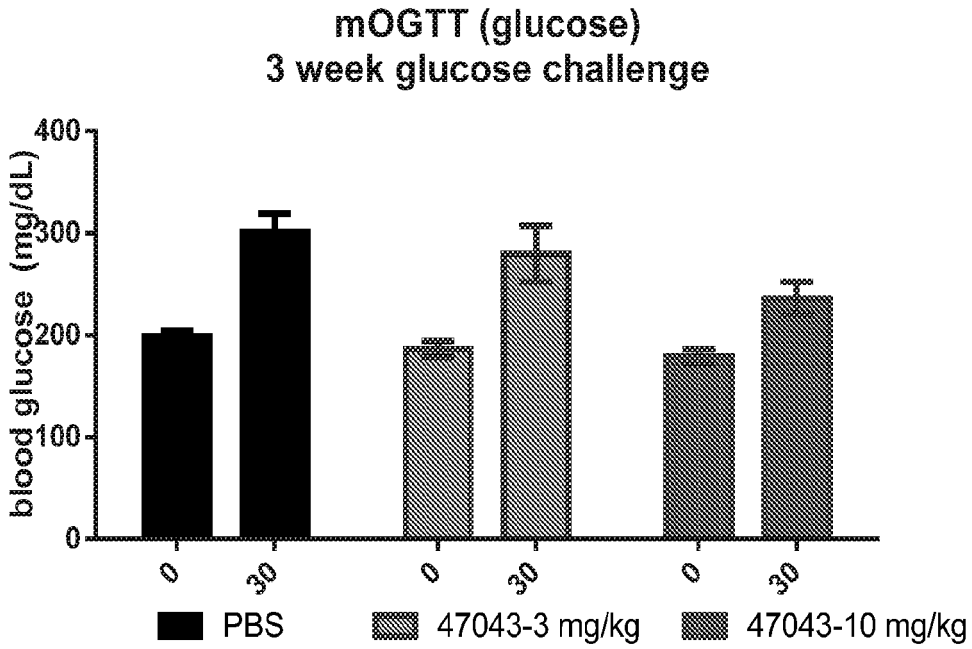

3 week HOMA IR
HOMA IR (glu*insulin/16.34)
300
200
100
0
PBS
47043-3 mg/kg
47043-10 mg/kg
Treatment groups

FIG. 7


mOGTT (glucose)
3 week glucose challenge
blood glucose (mg/dL)
400
300
200
100
0
0
30
0
30
0
30
PBS
47043-3 mg/kg
47043-10 mg/kg
Time (minutes post oral glucose challenge)

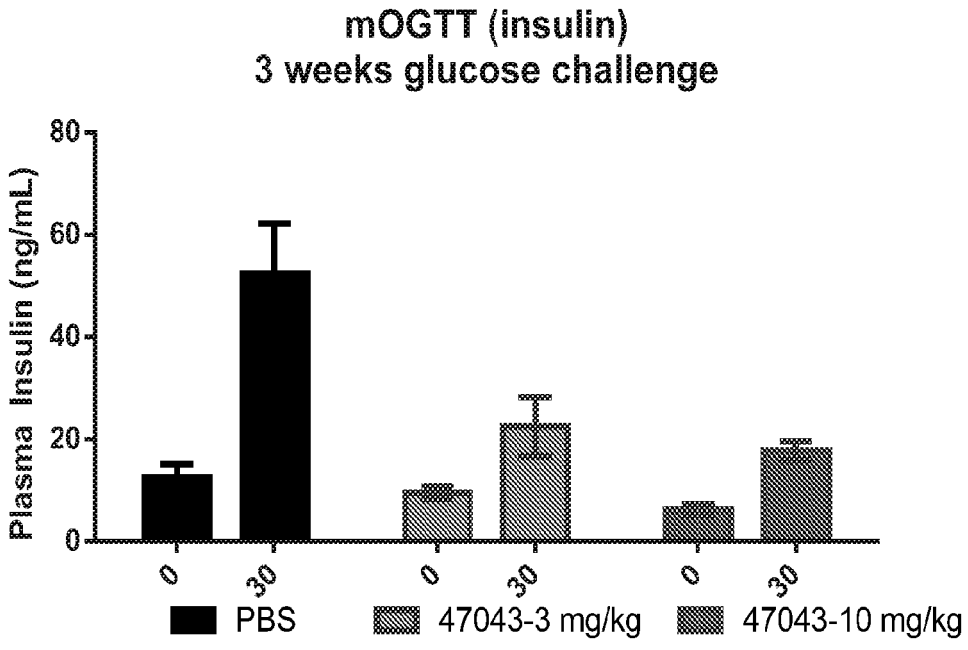

mOGTT (insulin)
3 weeks glucose challenge
Plasma Insulin (ng/mL)
80
60
40
20
0
0
30
0
30
0
30
PBS
47043-3 mg/kg
47043-10 mg/kg
Time (minutes post oral glucose challenge)

FIG. 8

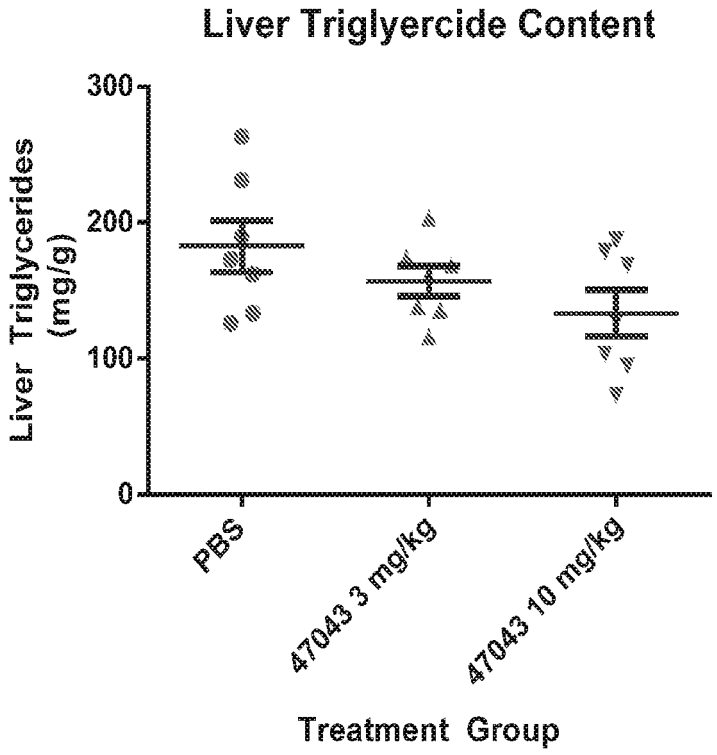

Liver Triglyercide Content
Liver Triglycerides (mg/g)
300
200
100
0
PBS
47043 3 mg/kg
47043 10 mg/kg
Treatment Group

FIG. 9A

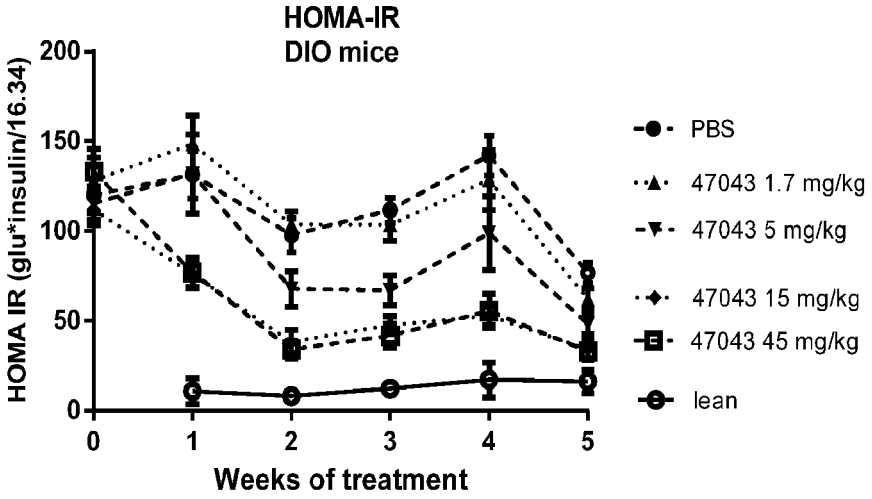


FIG. 9B

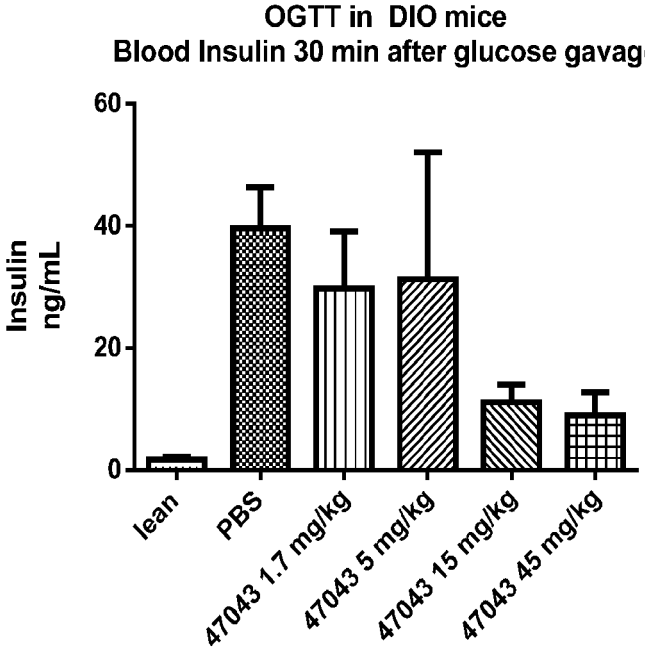


FIG. 9C

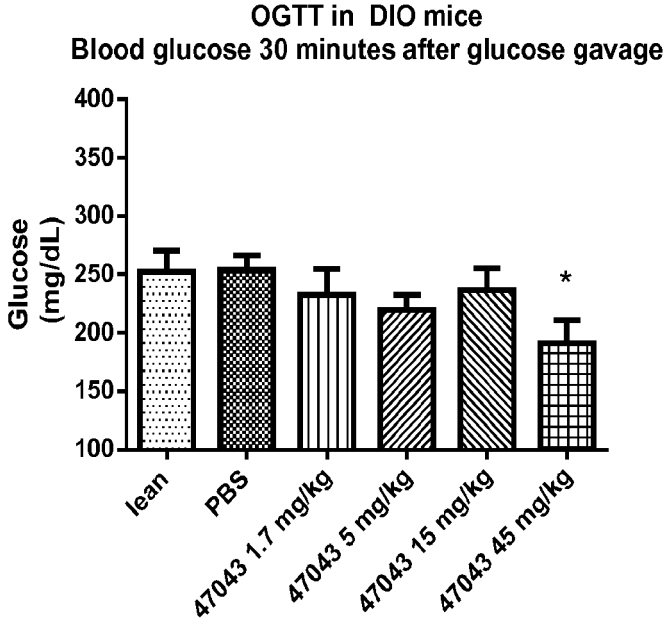


FIG. 9D

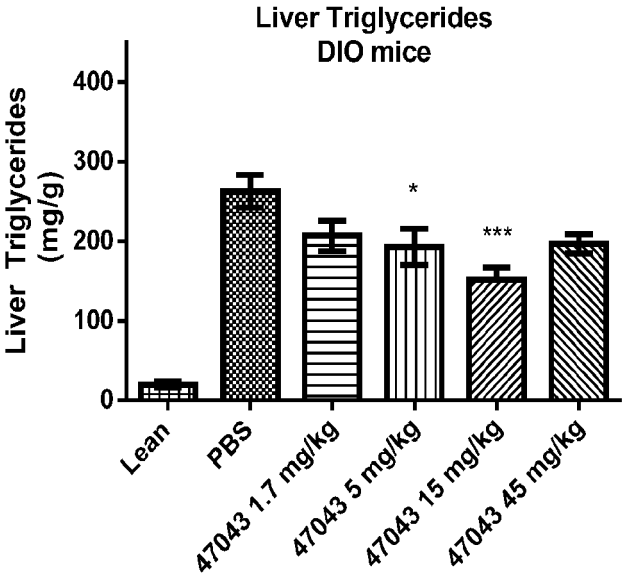

Liver Triglycerides
DIO mice
Liver Triglycerides (mg/g)
400
300
200
100
0
*
***
Lean
PBS
47043 1.7 mg/kg
47043 5 mg/kg
47043 15 mg/kg
47043 45 mg/kg

FIG. 9E

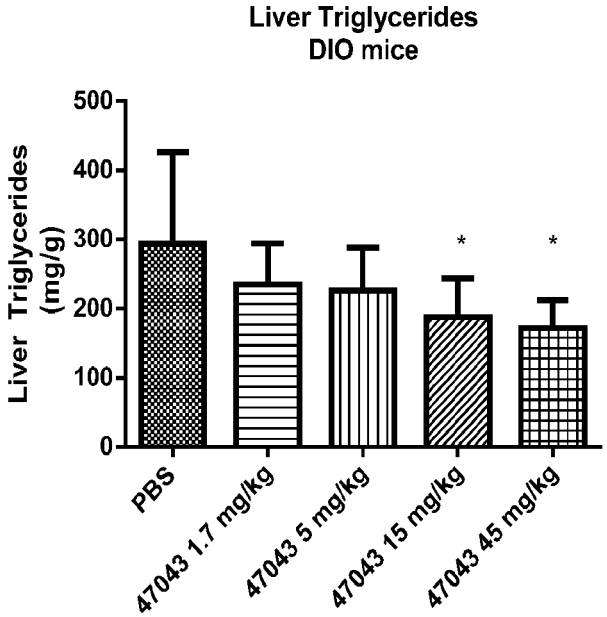

Liver Triglycerides
DIO mice
Liver Triglycerides (mg/g)
500
400
300
200
100
0
*
*
PBS
47043 1.7 mg/kg
47043 5 mg/kg
47043 15 mg/kg
47043 45 mg/kg

FIG. 10

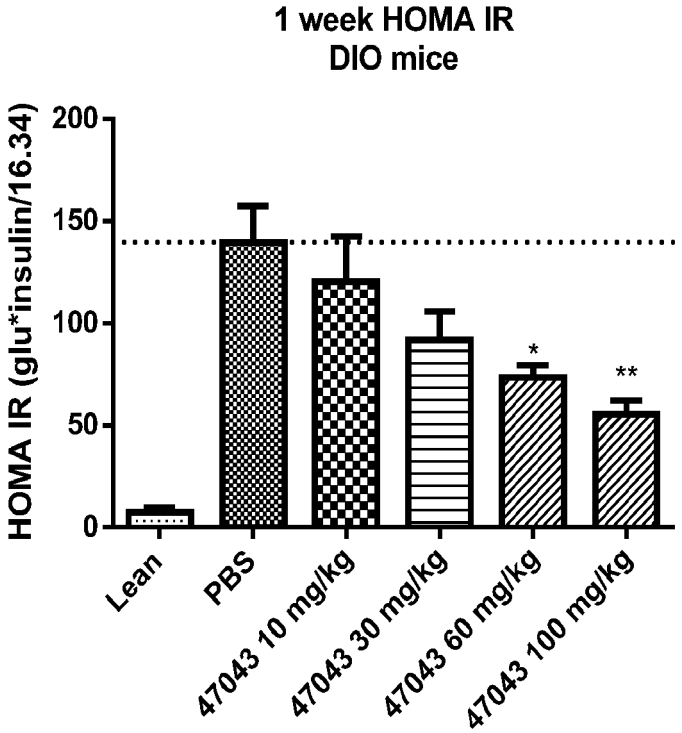

1 week HOMA IR
DIO mice
HOMA IR (glu*insulin/16.34)
200
150
100
50
0
*
**
Lean
PBS
47043 10 mg/kg
47043 30 mg/kg
47043 60 mg/kg
47043 100 mg/kg

FIG. 11A

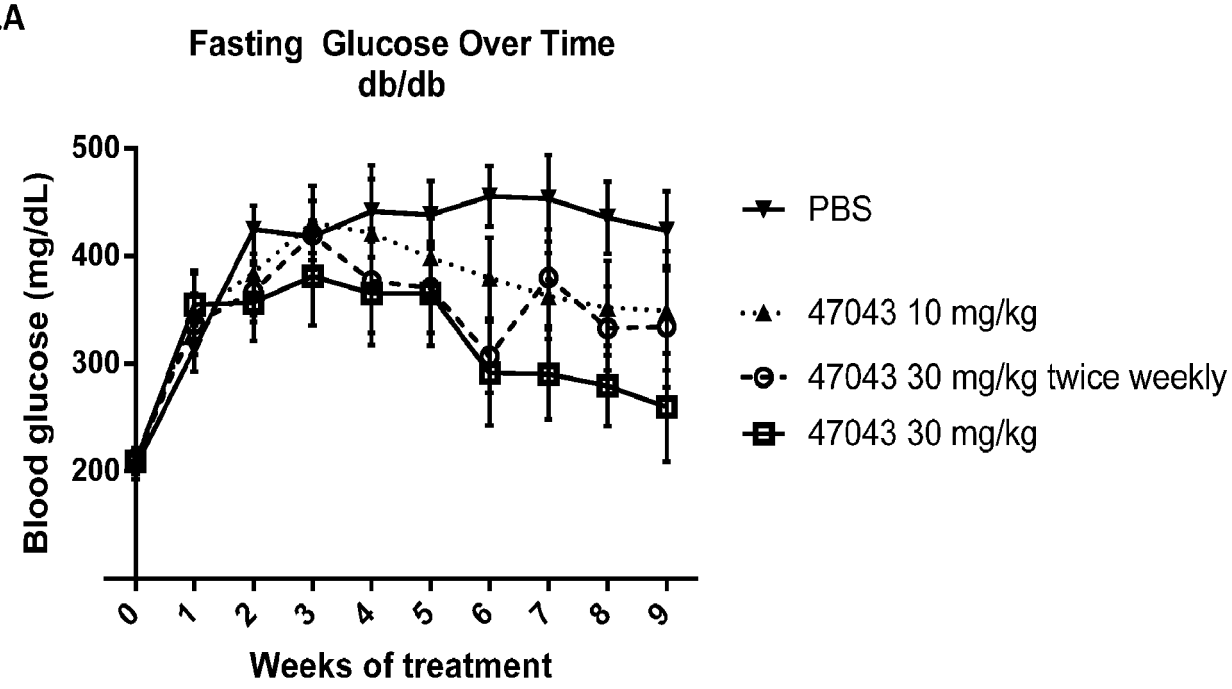


FIG. 11B

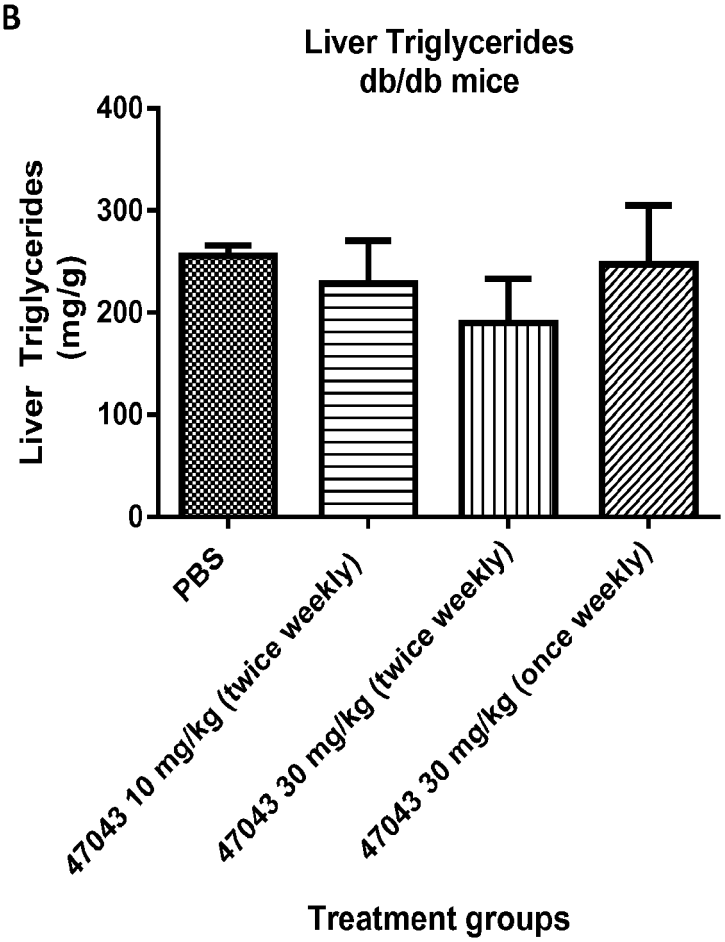


FIG. 12A

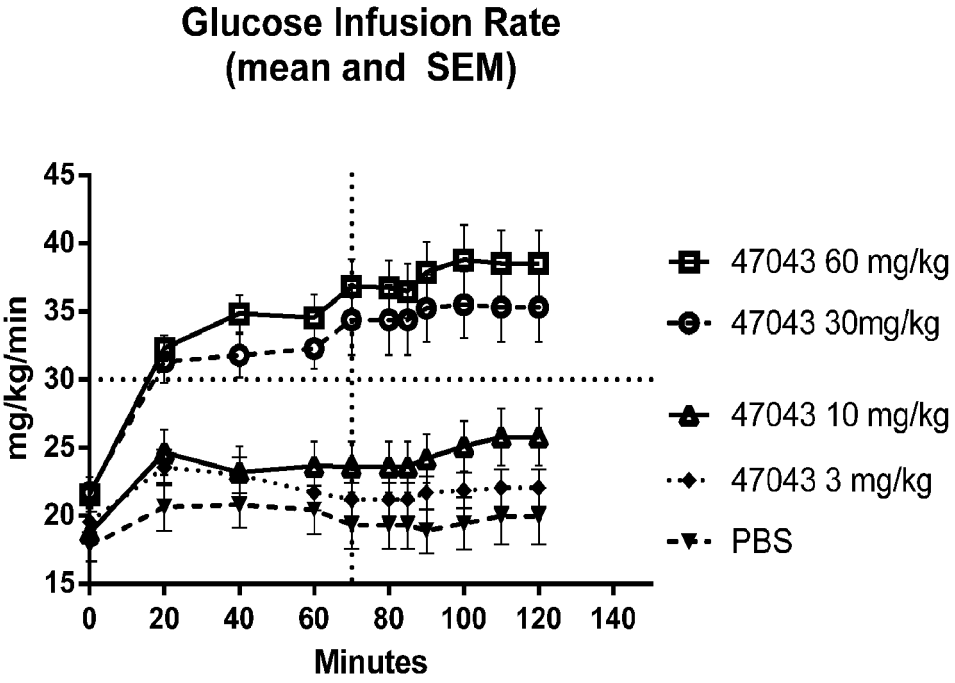


FIG. 12B

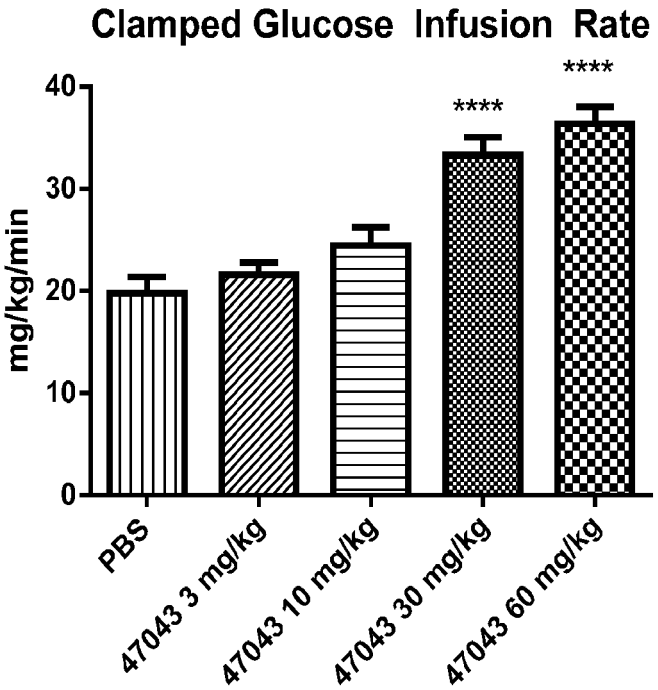


FIG. 12C

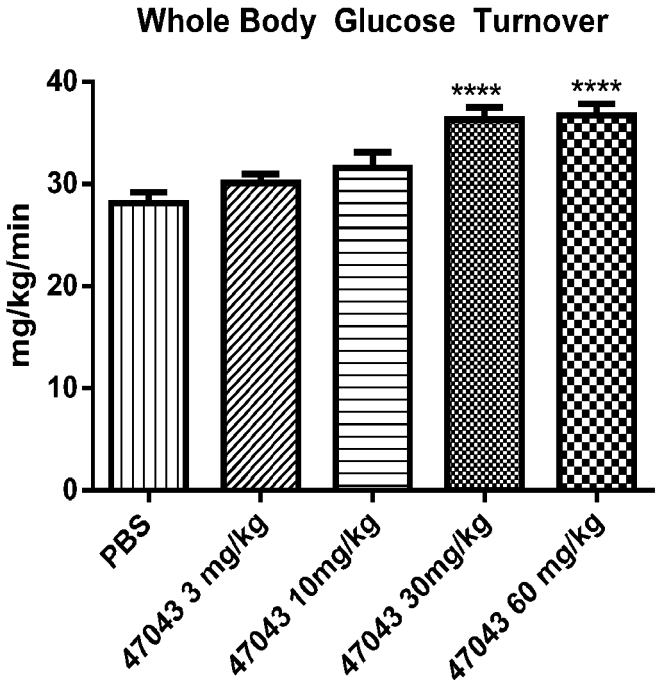


FIG. 12D

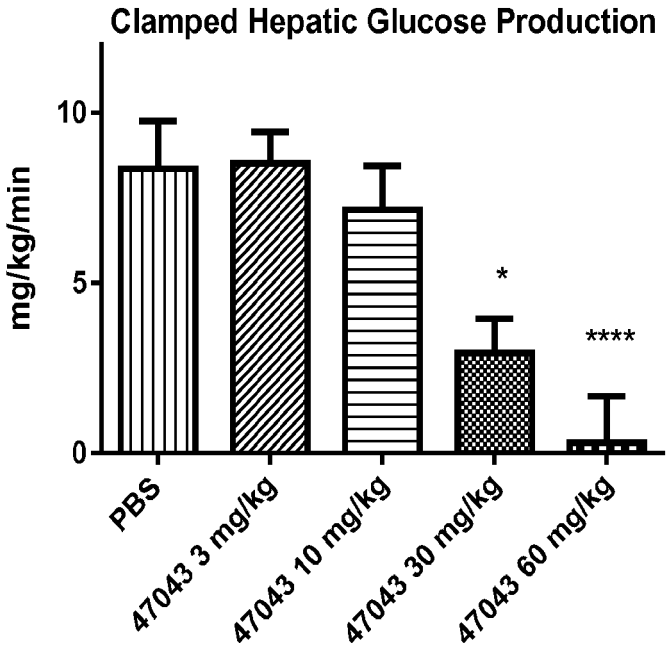
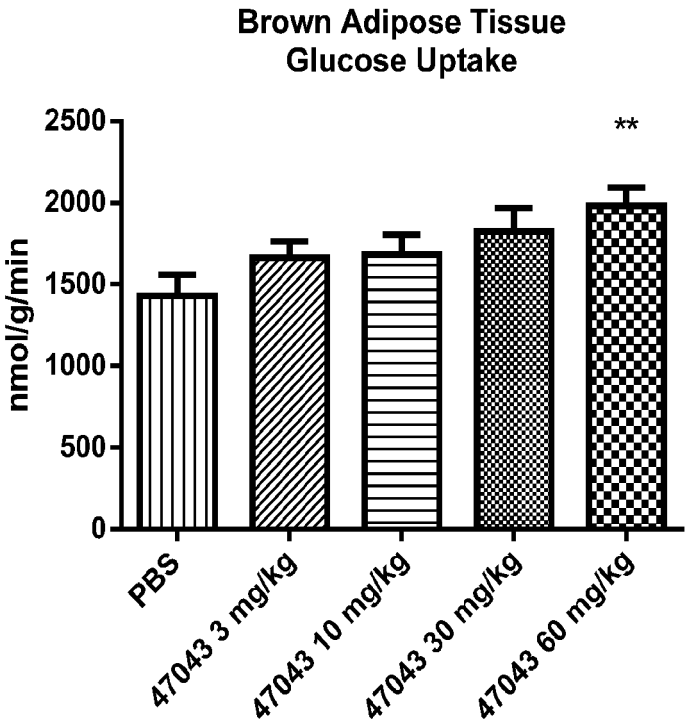


FIG. 12E


Brown Adipose Tissue
Glucose Uptake
nmol/g/min
2500
2000
1500
1000
500
0
**
PBS
47043 3 mg/kg
47043 10 mg/kg
47043 30 mg/kg
47043 60 mg/kg

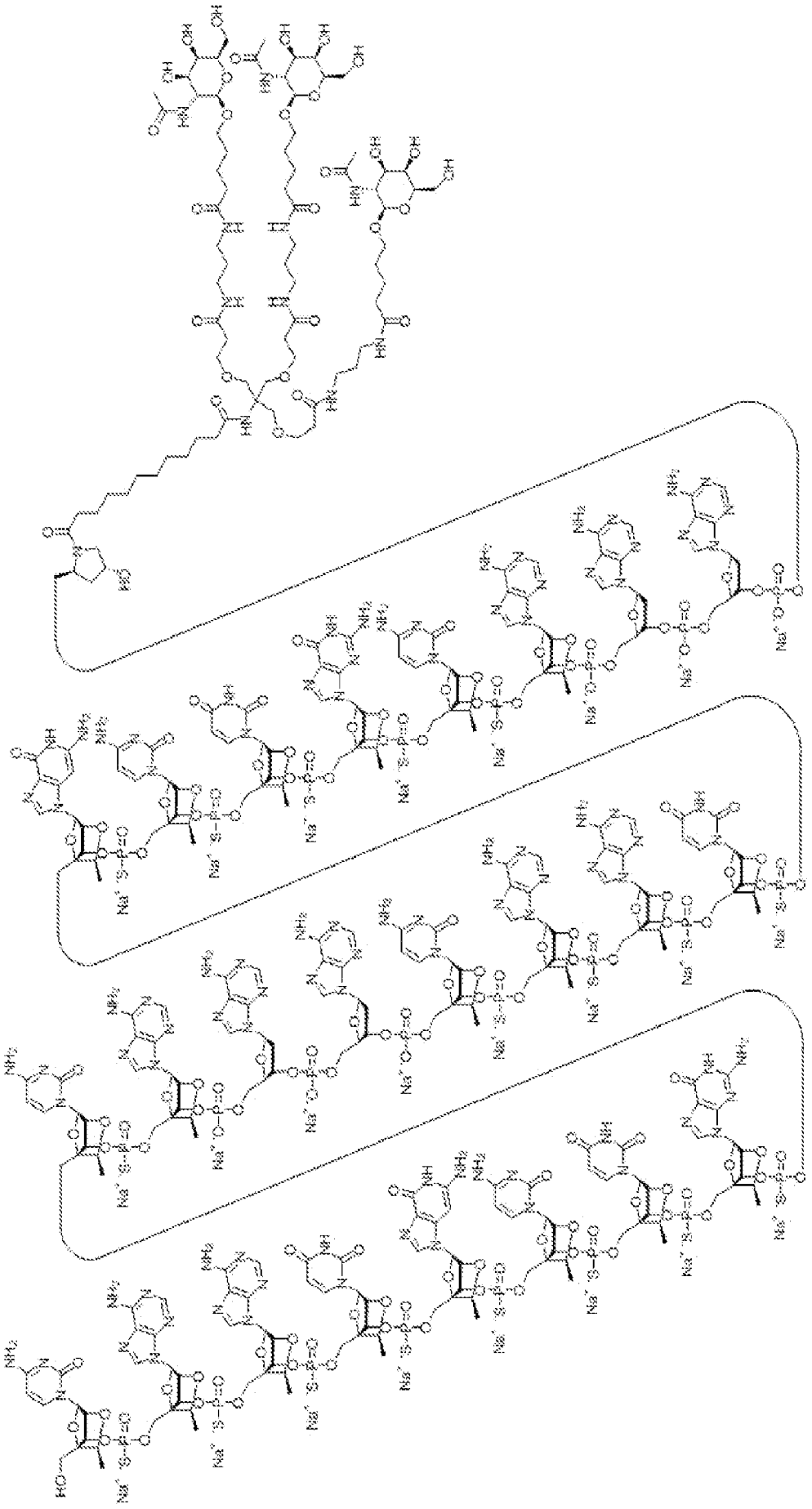


FIG. 13