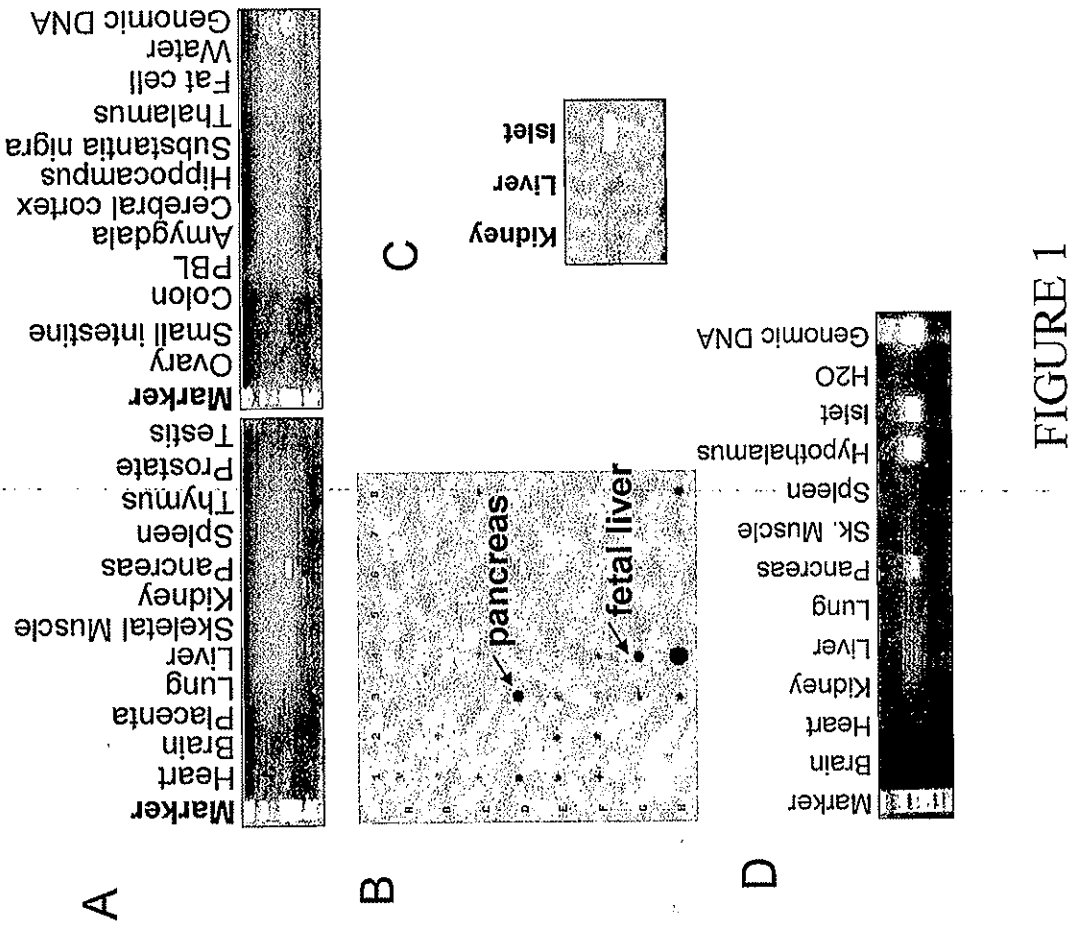

A
Marker
Heart
Brain
Placenta
Lung
Liver
Skeletal Muscle
Kidney
Pancreas
Spleen
Thymus
Prostate
Testis
Marker
Ovary
Small intestine
Colon
PBL
Amygdala
Cerebral cortex
Hippocampus
Substantia nigra
Thalamus
Fat cell
Water
Genomic DNA
B
pancreas
fetal liver
C
Kidney
Liver
Islet
D
Marker
Brain
Heart
Kidney
Liver
Lung
Pancreas
Sk. Muscle
Spleen
Hypothalamus
Islet
H2O
Genomic DNA

FIGURE 1

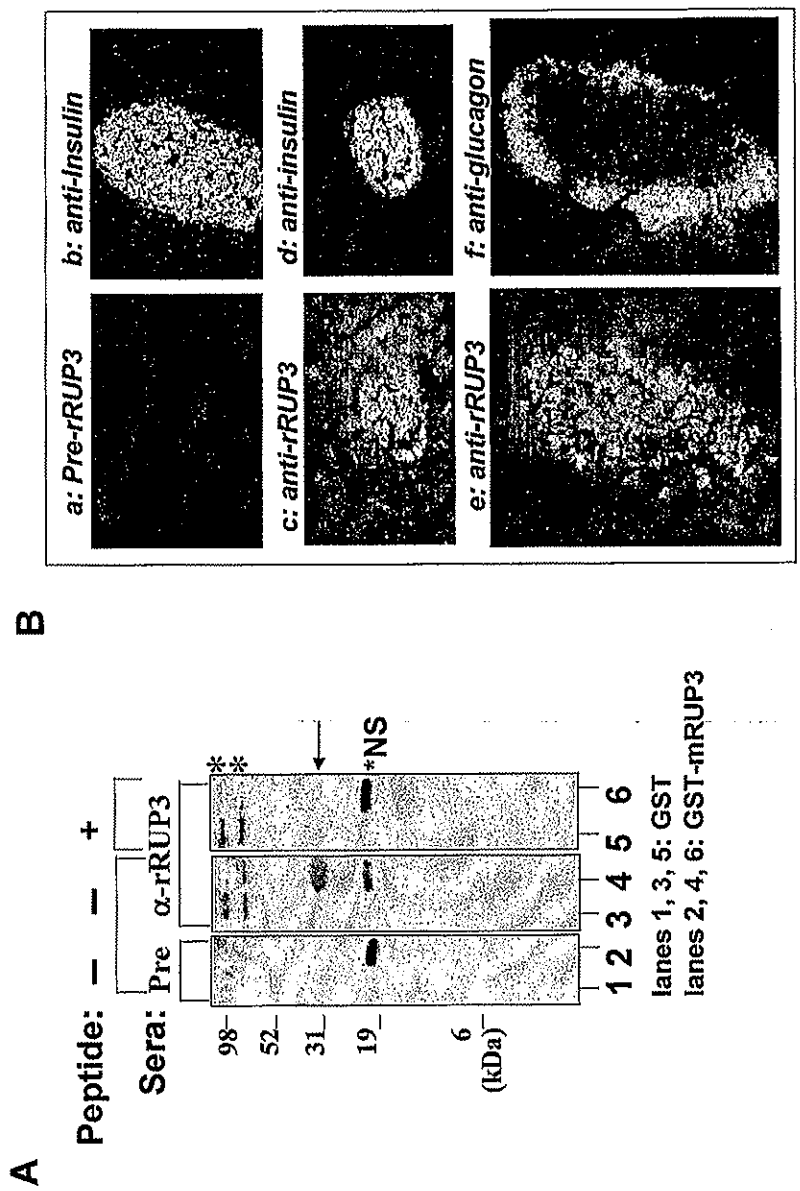

A
Peptide: – – +
Sera: Pre α-rRUP3
98
52
31
19
6
(kDa)
**
*NS
1 2 3 4 5 6
lanes 1, 3, 5: GST
lanes 2, 4, 6: GST-mRUP3
B
a: Pre-rRUP3
b: anti-Insulin
c: anti-rRUP3
d: anti-insulin
e: anti-rRUP3
f: anti-glucagon

FIGURE 2

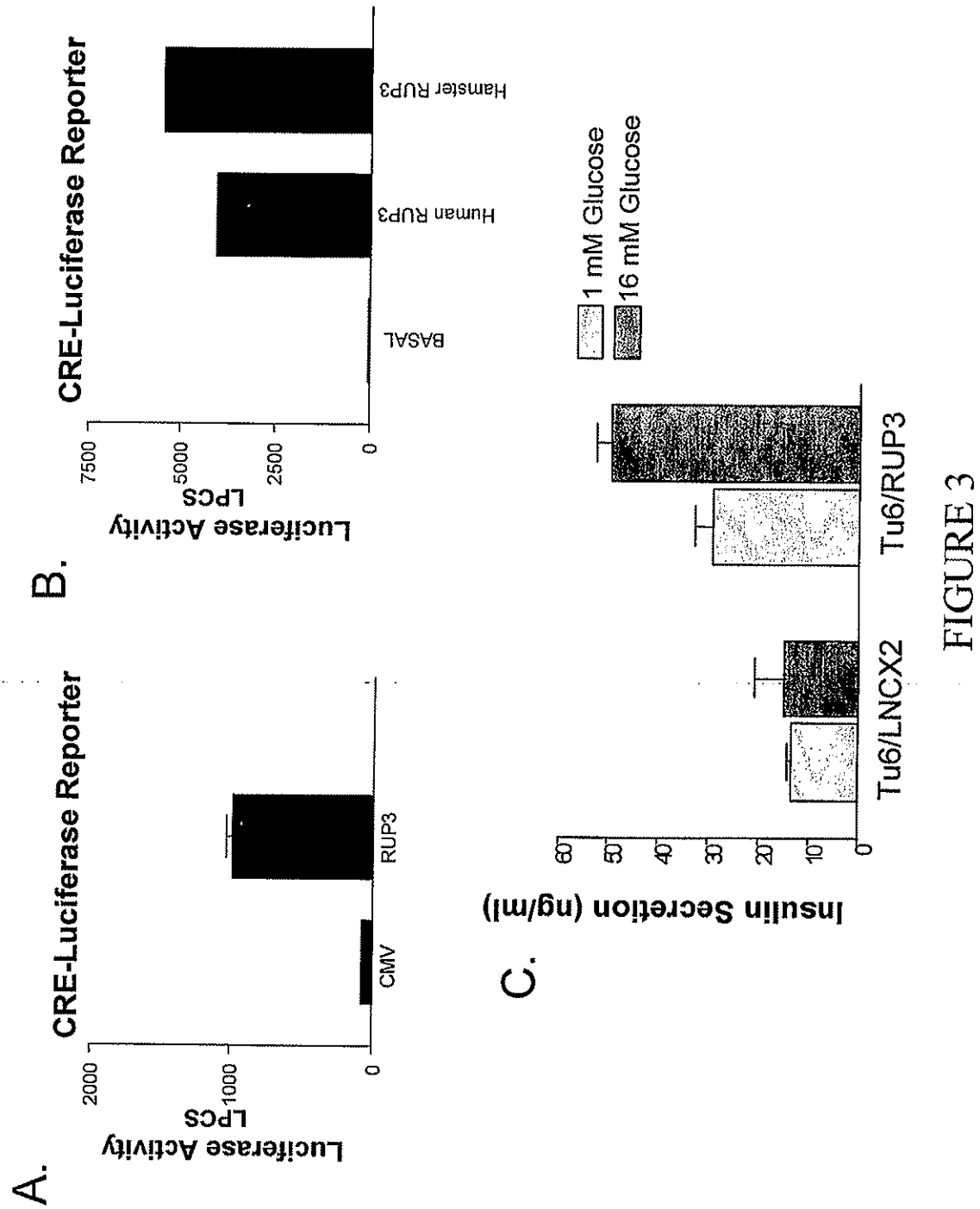

A.
CRE-Luciferase Reporter
Luciferase Activity
LPCS
2000
1000
0
CMV
RUP3
B.
CRE-Luciferase Reporter
Luciferase Activity
LPCS
7500
5000
2500
0
BASAL
Human RUP3
Hamster RUP3
C.
Insulin Secretion (ng/ml)
60
50
40
30
20
10
0
1 mM Glucose
16 mM Glucose
Tu6/LNCX2
Tu6/RUP3

FIGURE 3

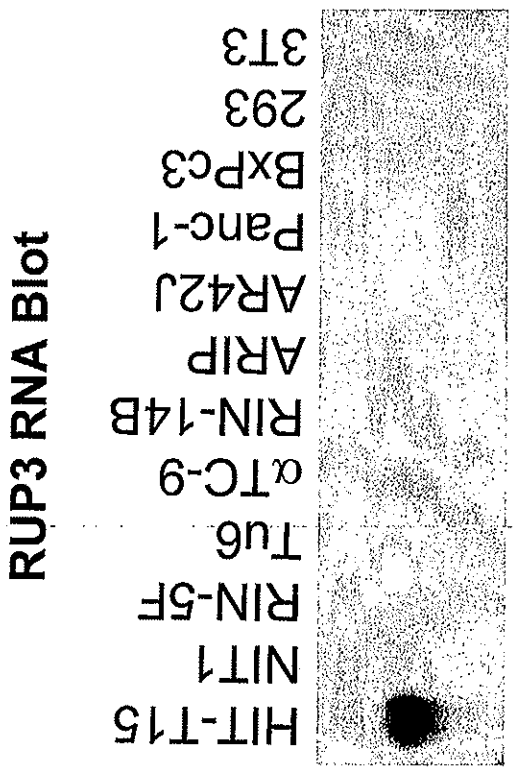

RUP3 RNA Blot
HIT-T15
NIT1
RIN-5F
Tu6
αTC-9
RIN-14B
ARIP
AR42J
Panc-1
BxPc3
293
3T3

FIGURE 4