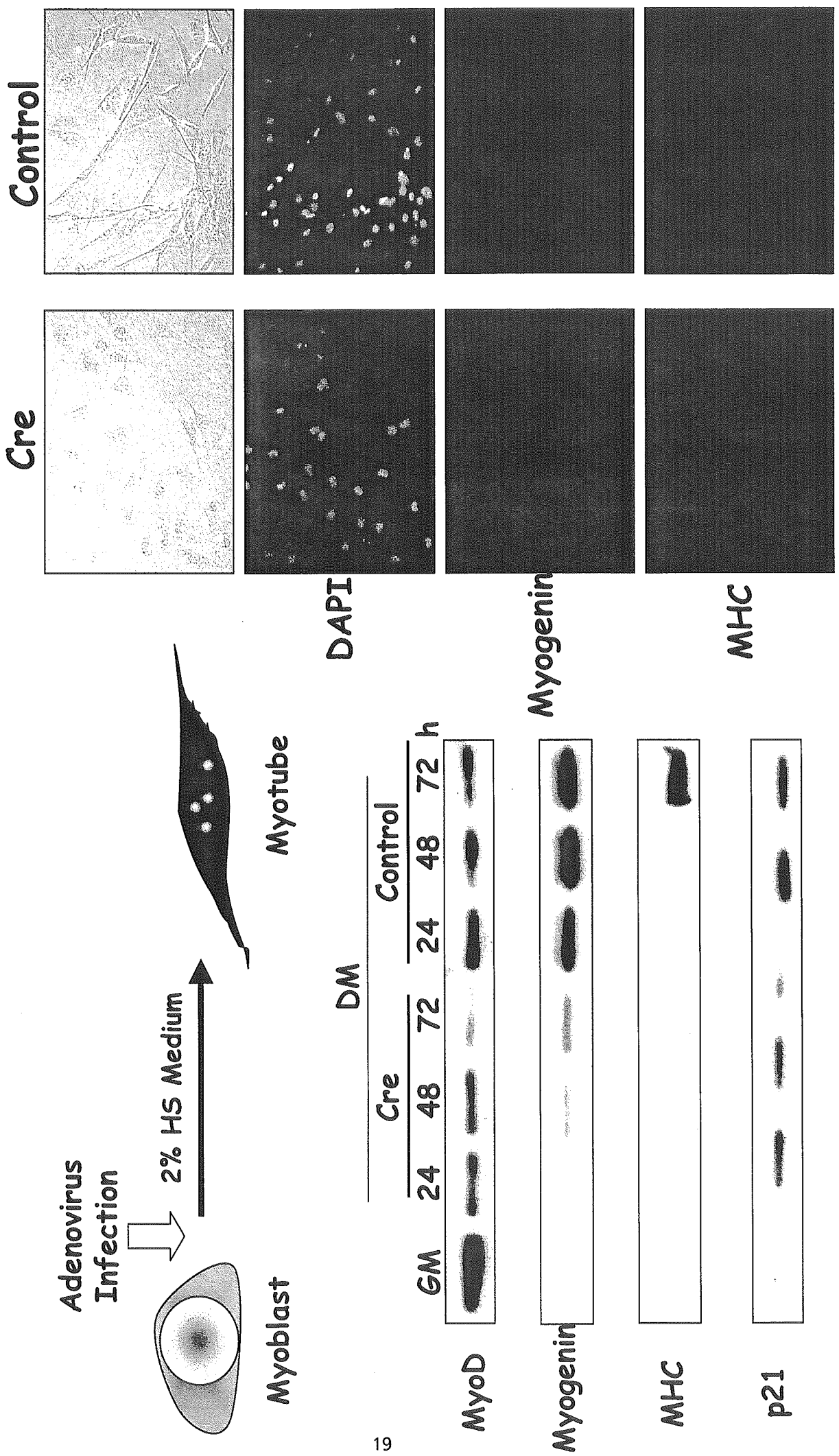
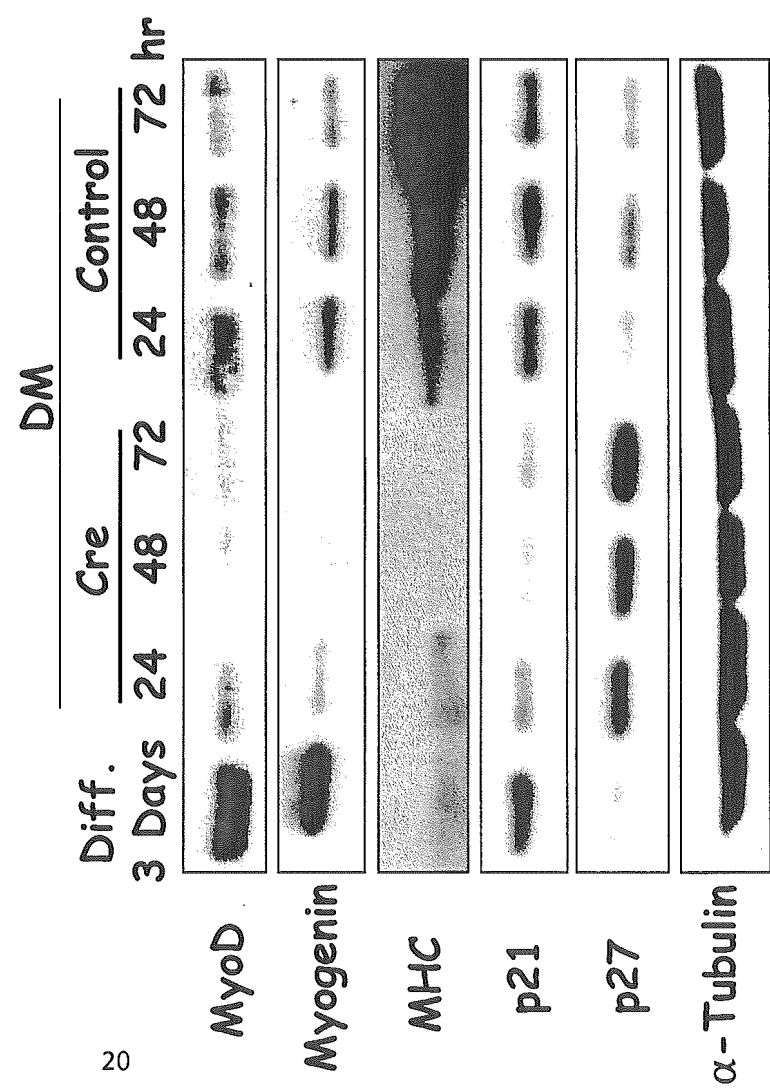
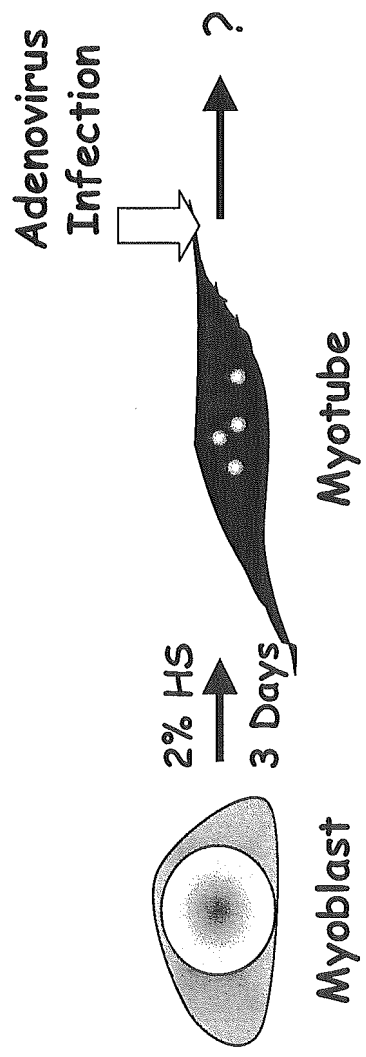
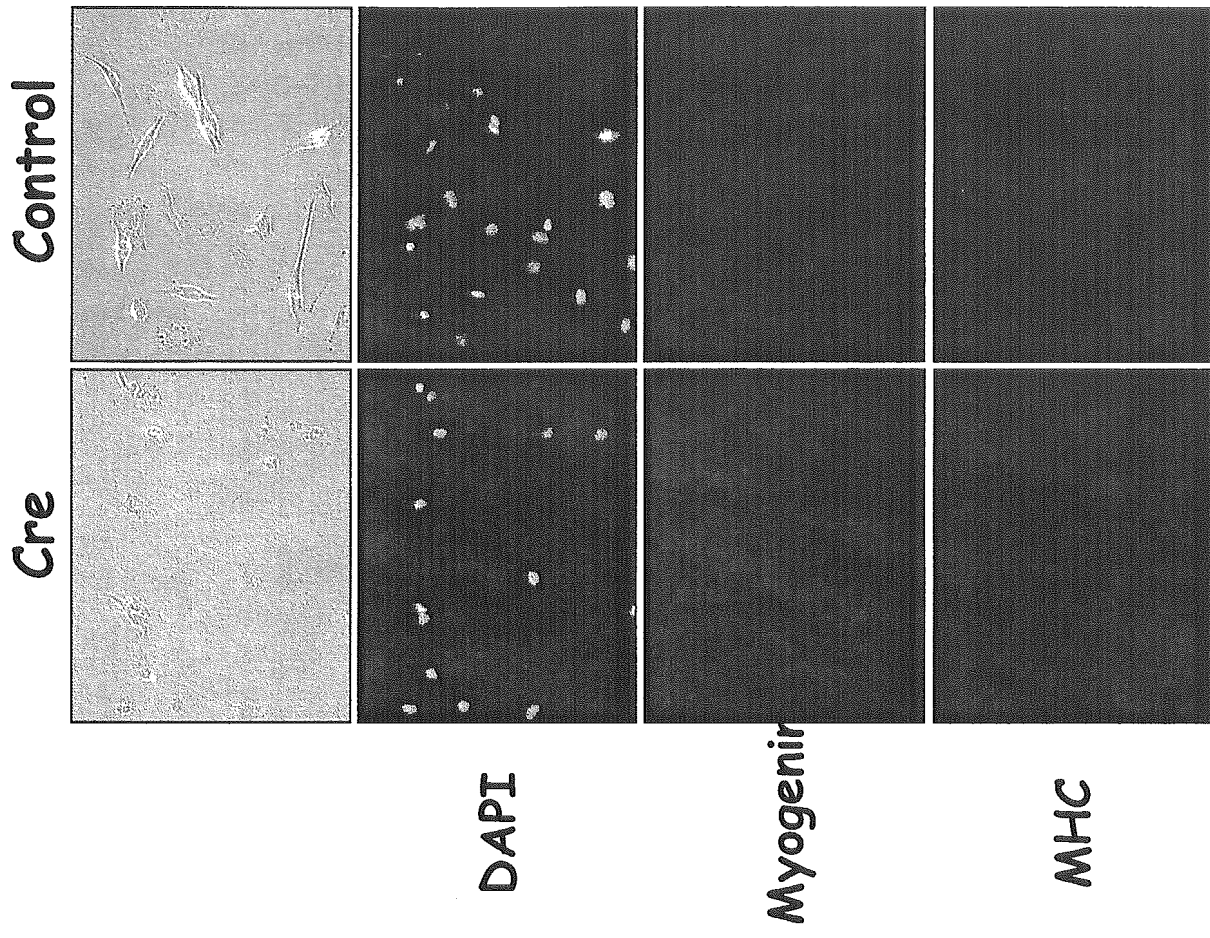


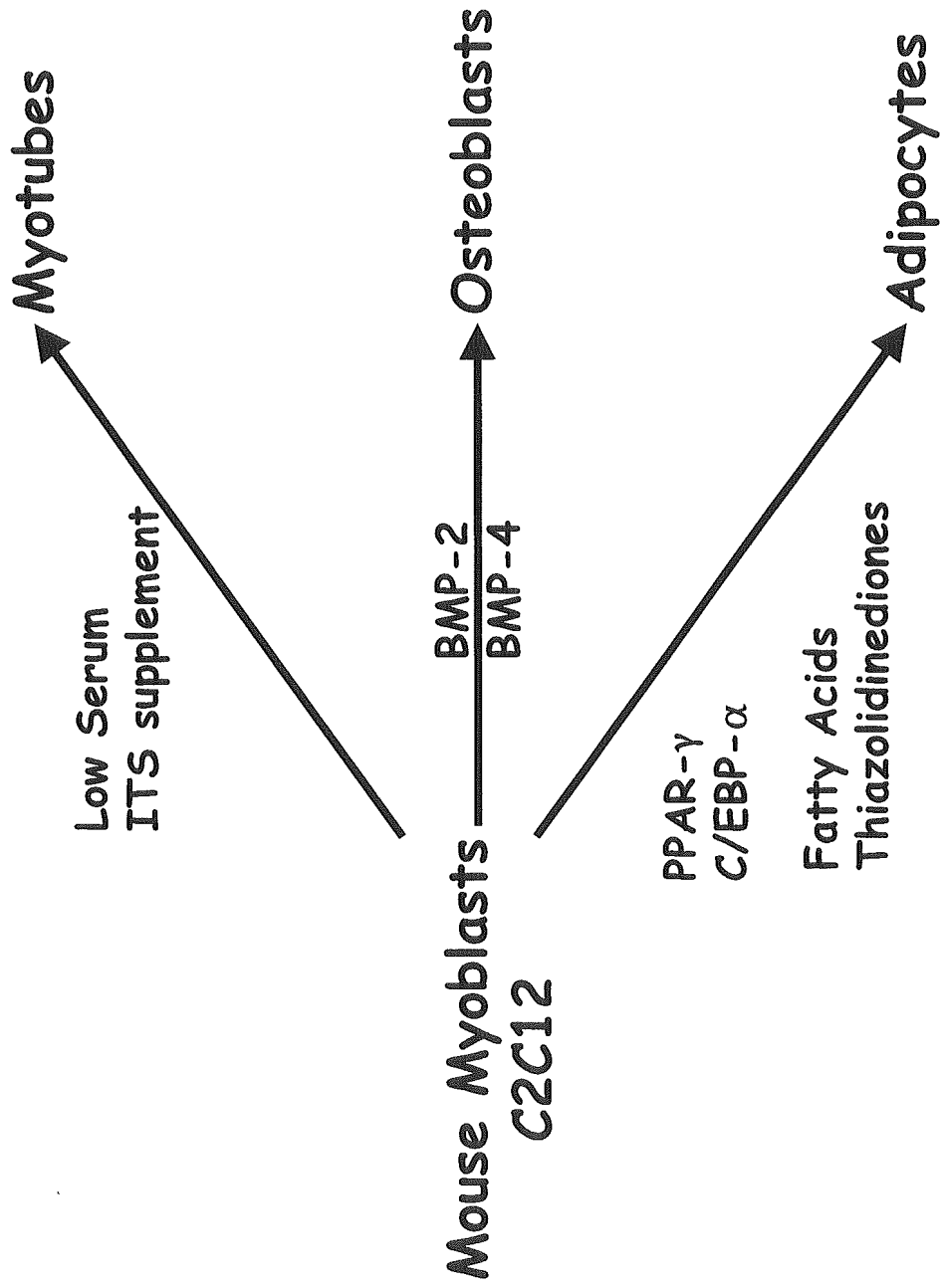
(图4) Foxo4 inhibits Myogenesis of C2C12 Cells



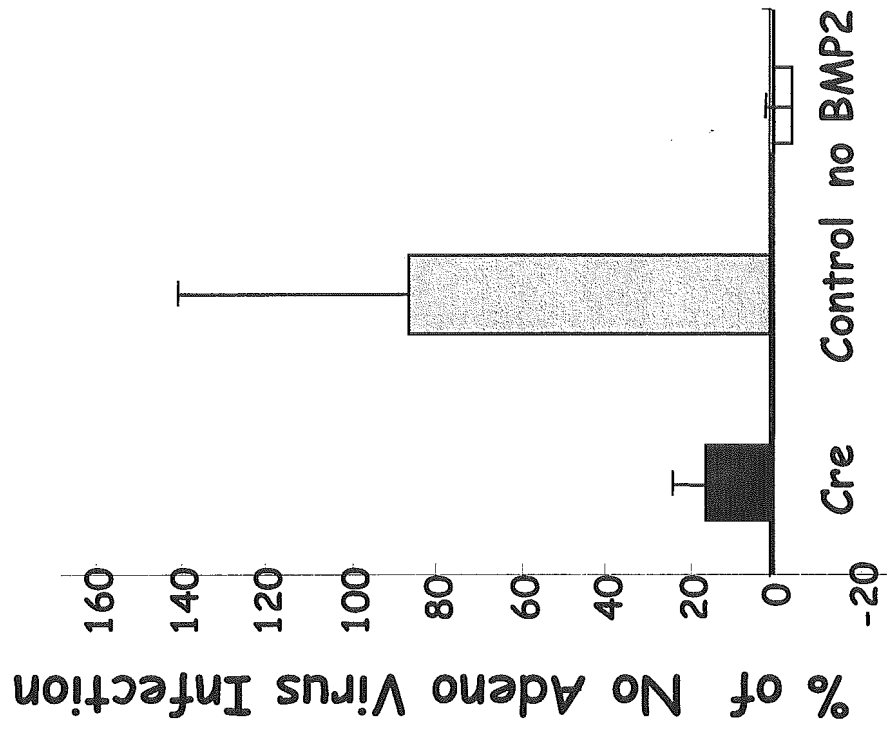
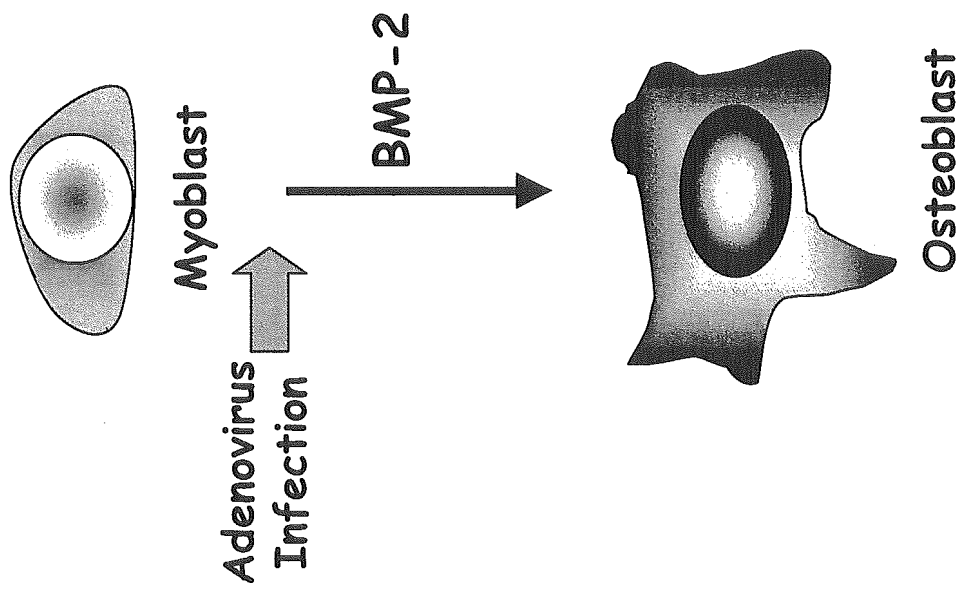
(图5) *Foxo4* Reverses Muscle Differentiation of C2C12 Cells



C2C12 Cells Are Multipotential Stem Cells

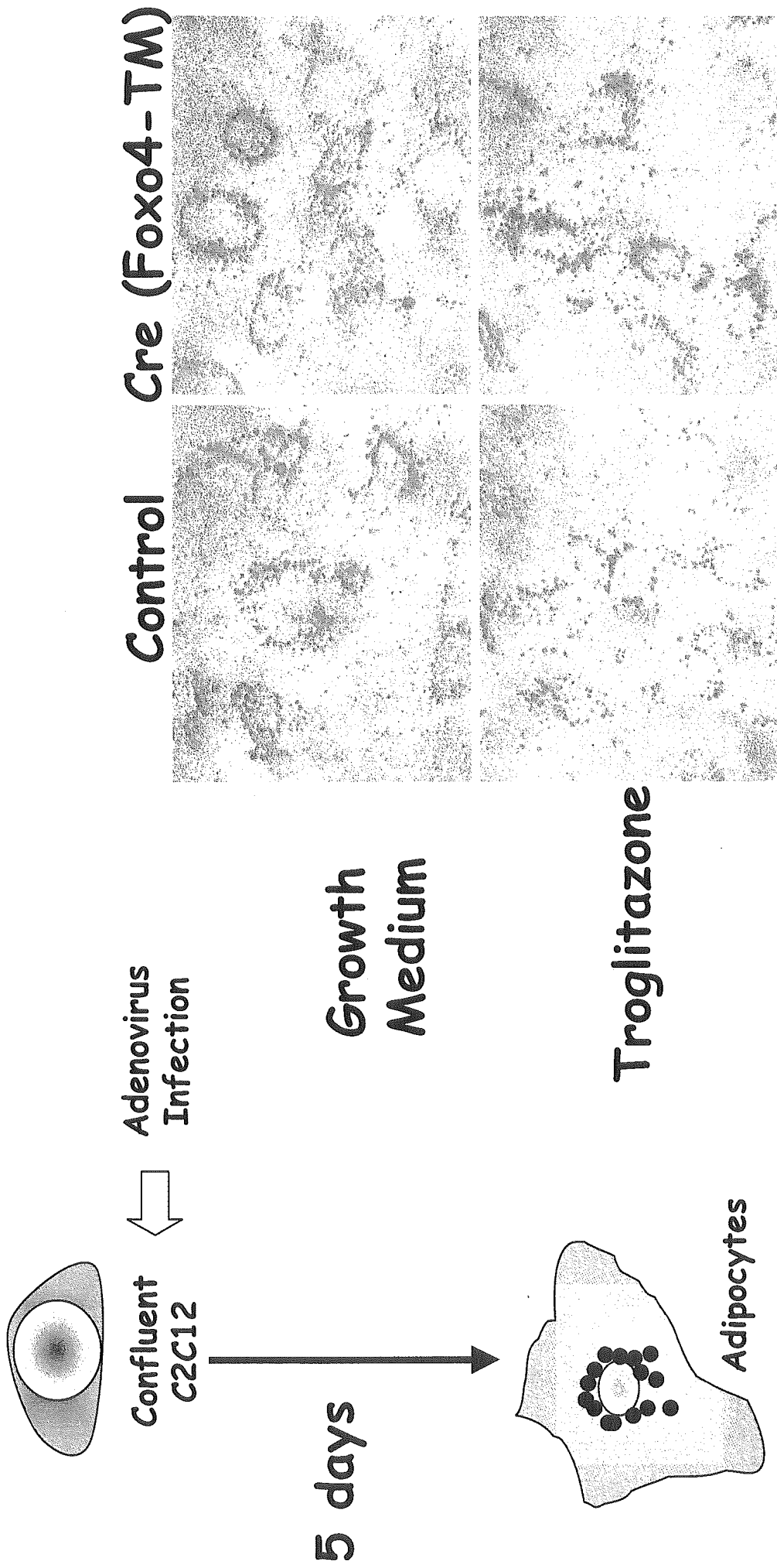


Foxo4 Inhibits Osteoblastogenesis



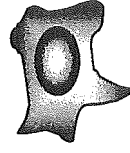
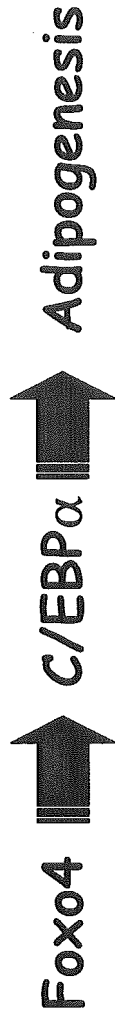
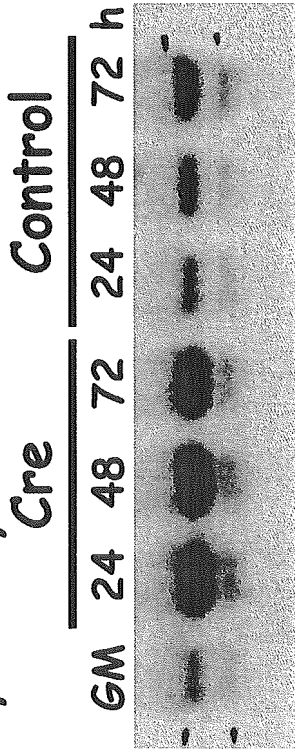
(图7)

Foxo4 Does Not Affect Adipogenesis



Foxo4 Induces Adipogenic Differentiation Factor C/EBP α

DNA Chip Analysis



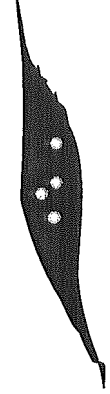
Osteoblast



Mesenchymal Stem Cells



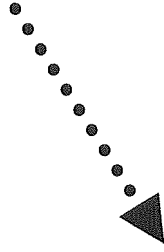
Myoblast



Myotube

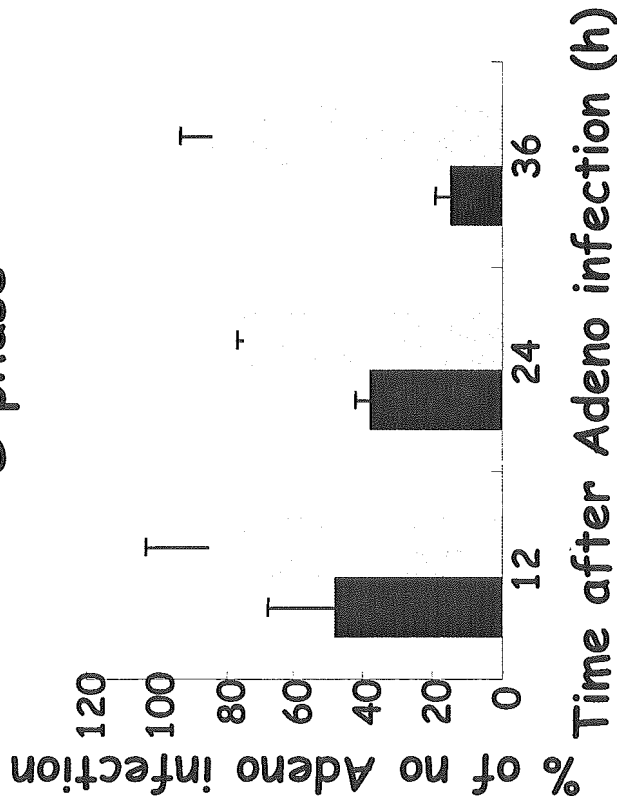


Adipocyte

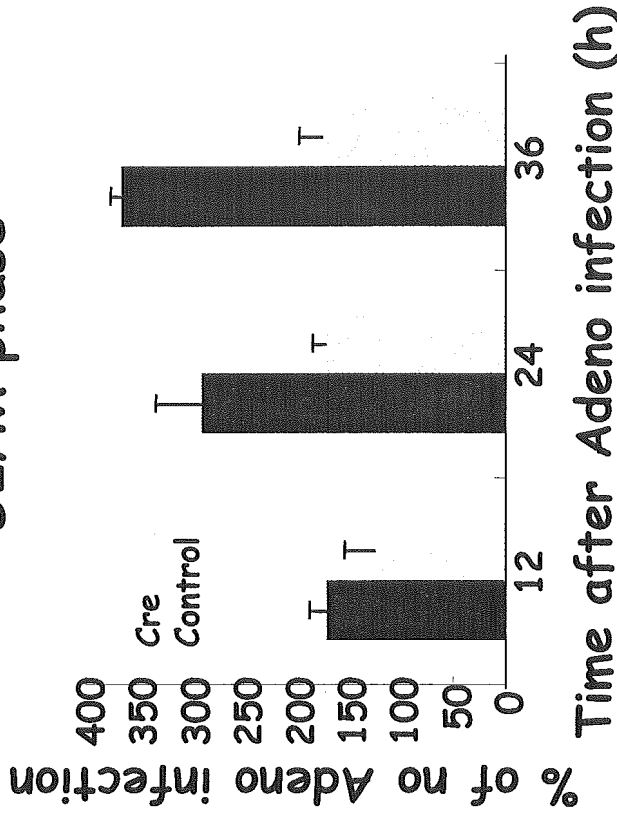


AFX Induces G1 and G2 Cell Cycle Arrests

S phase



G2/M phase



Cre Control
24 36 48 24 36 48 0 (h)

p27

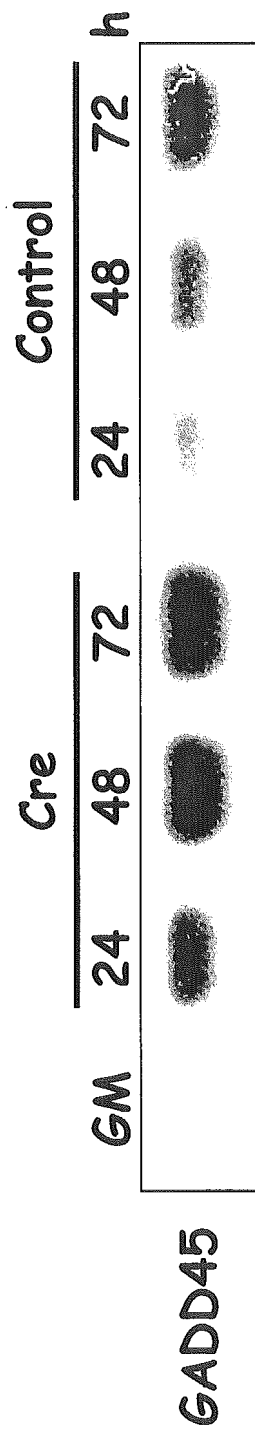
Cre Control
0 24 36 48 24 36 48 (h)

HistonH3-P

(图10)

Foxo4 Regulates Stress Response Gene GADD45

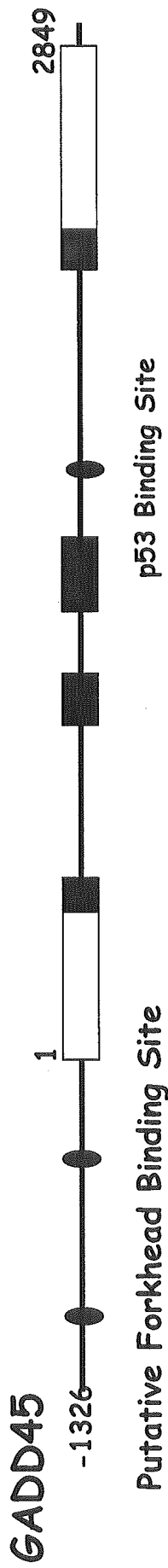
Northern hybridization



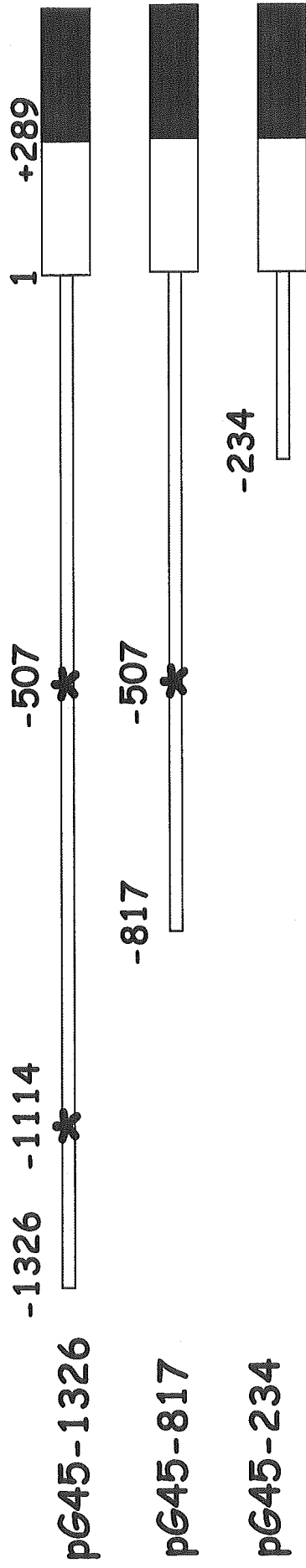
Western blotting



FOXO Binding Motifs in GADD45 Promoter



GADD45 Promoter Deletion Mutants



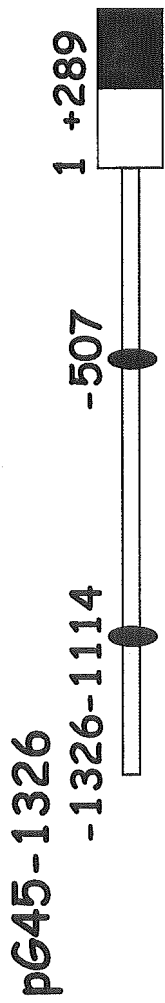
Forkhead consensus sequence

GTAACAA
AAC **T**
CG **G**

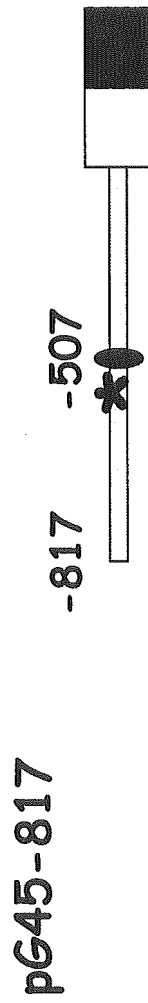
Putative Forkhead Binding Sites

-1114: TTGTTTTT
 -507: ATAAACAA

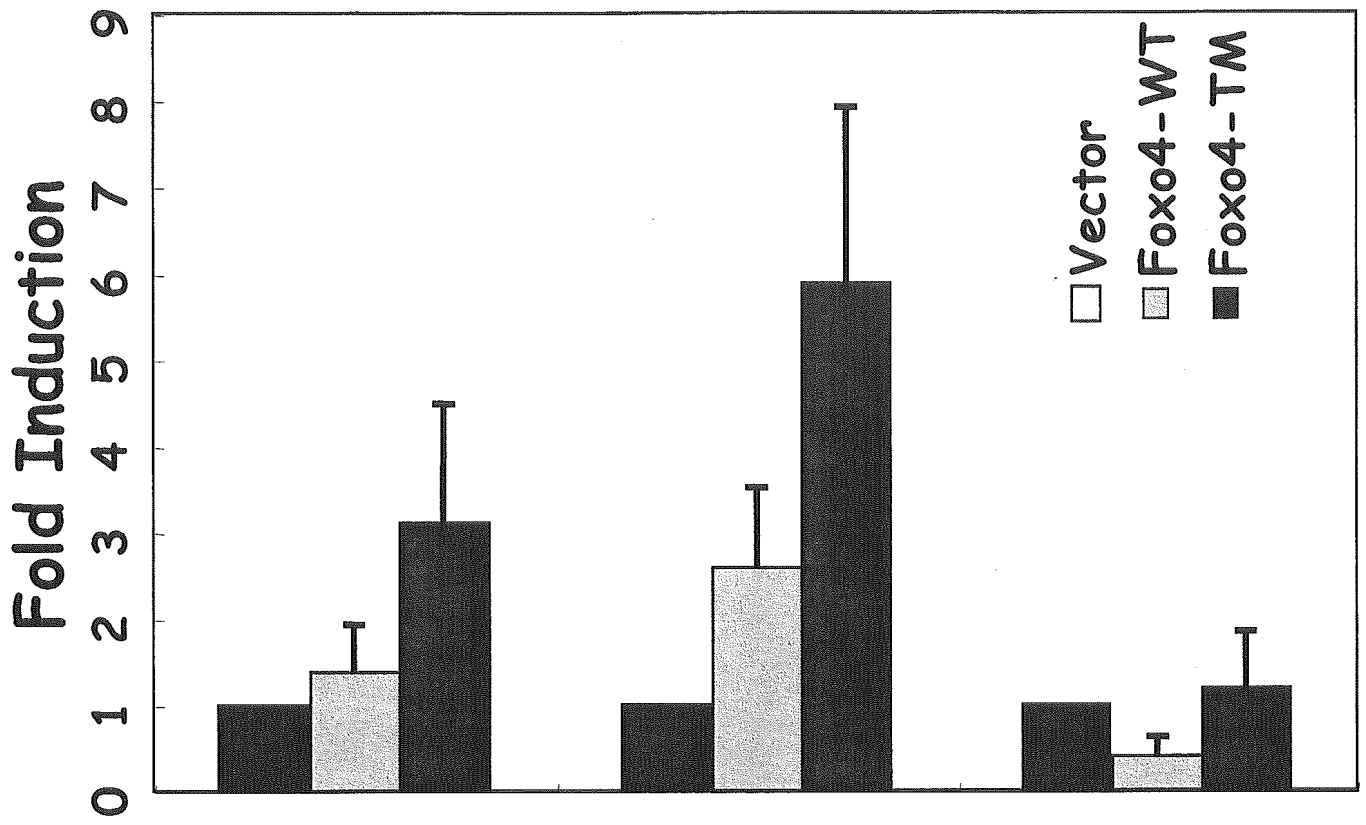
GADD45 promoter assay



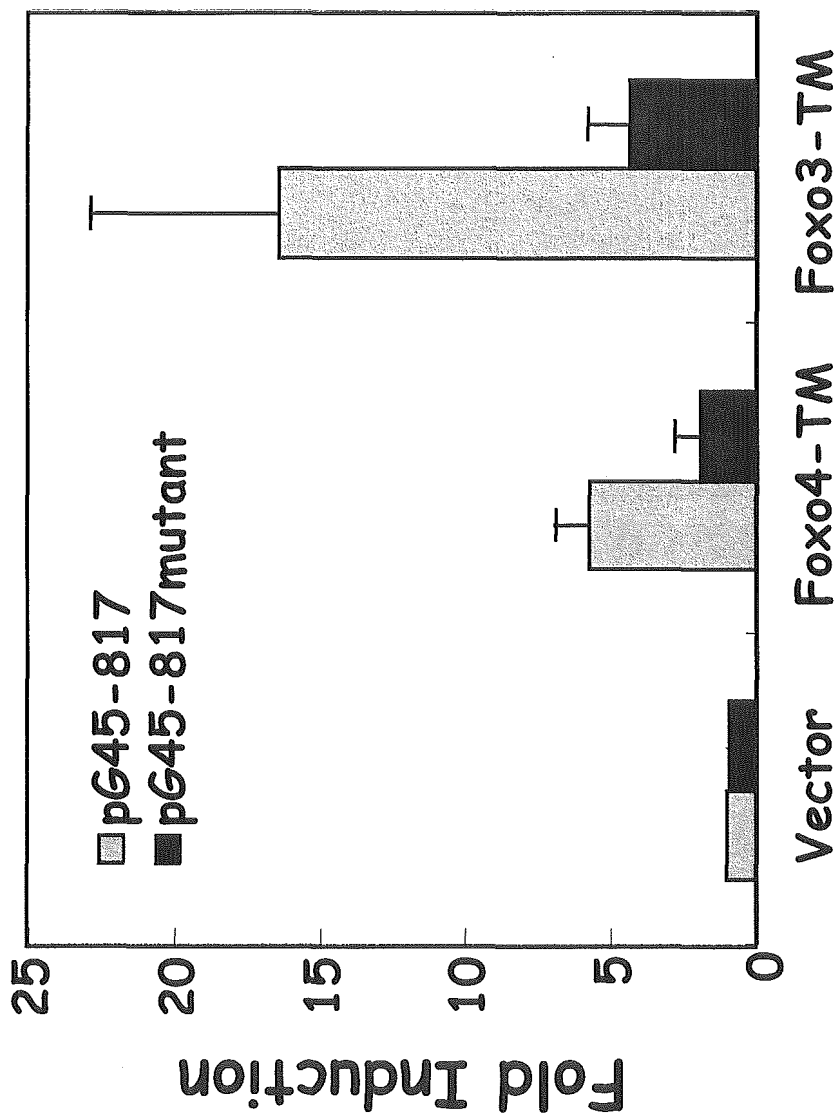
*



*



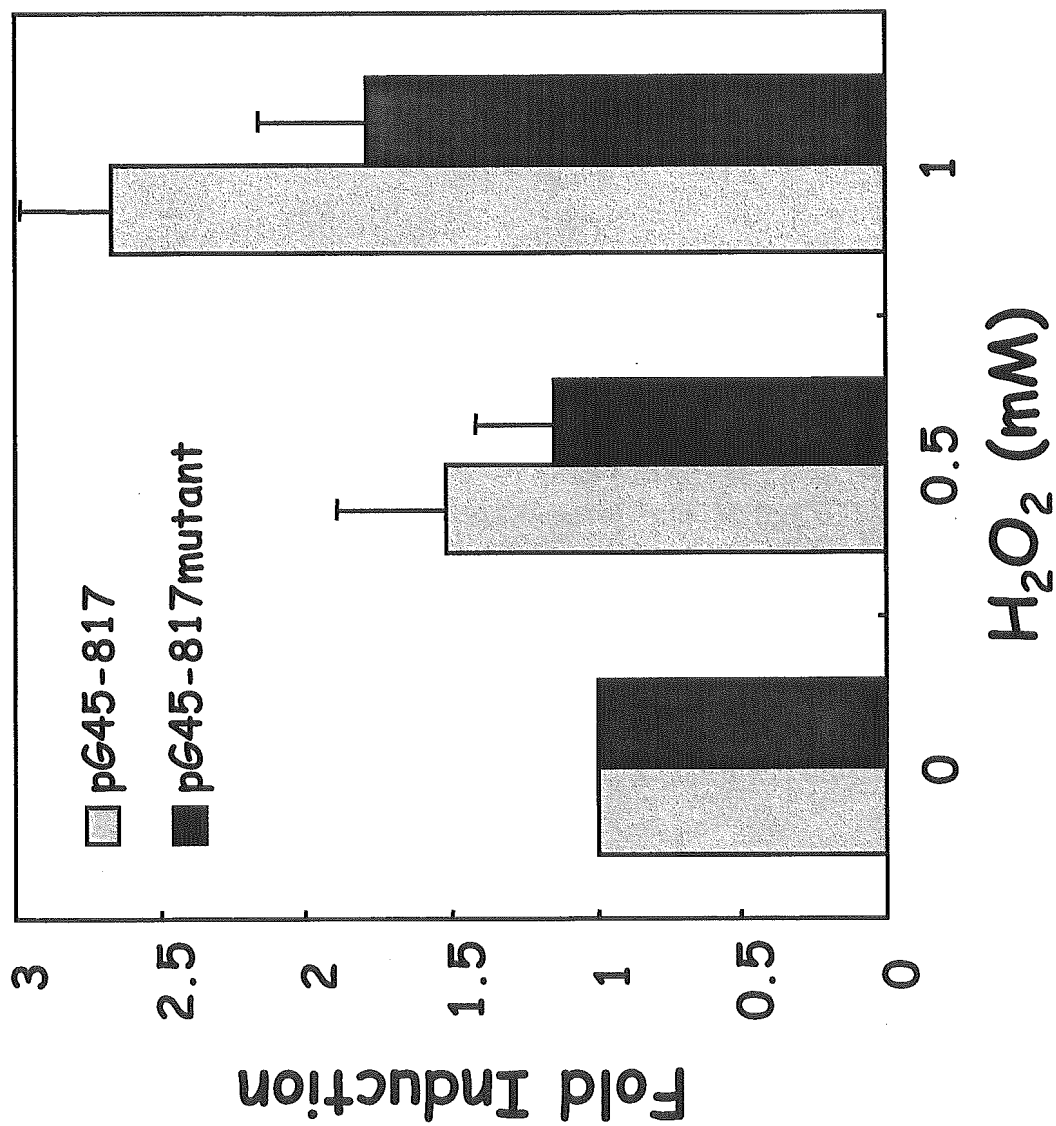
(图13)



Mutation of Putative Forkhead Binding Site
 pG45-817 ATAAACA
 pG45-817mutant CTCGAGA

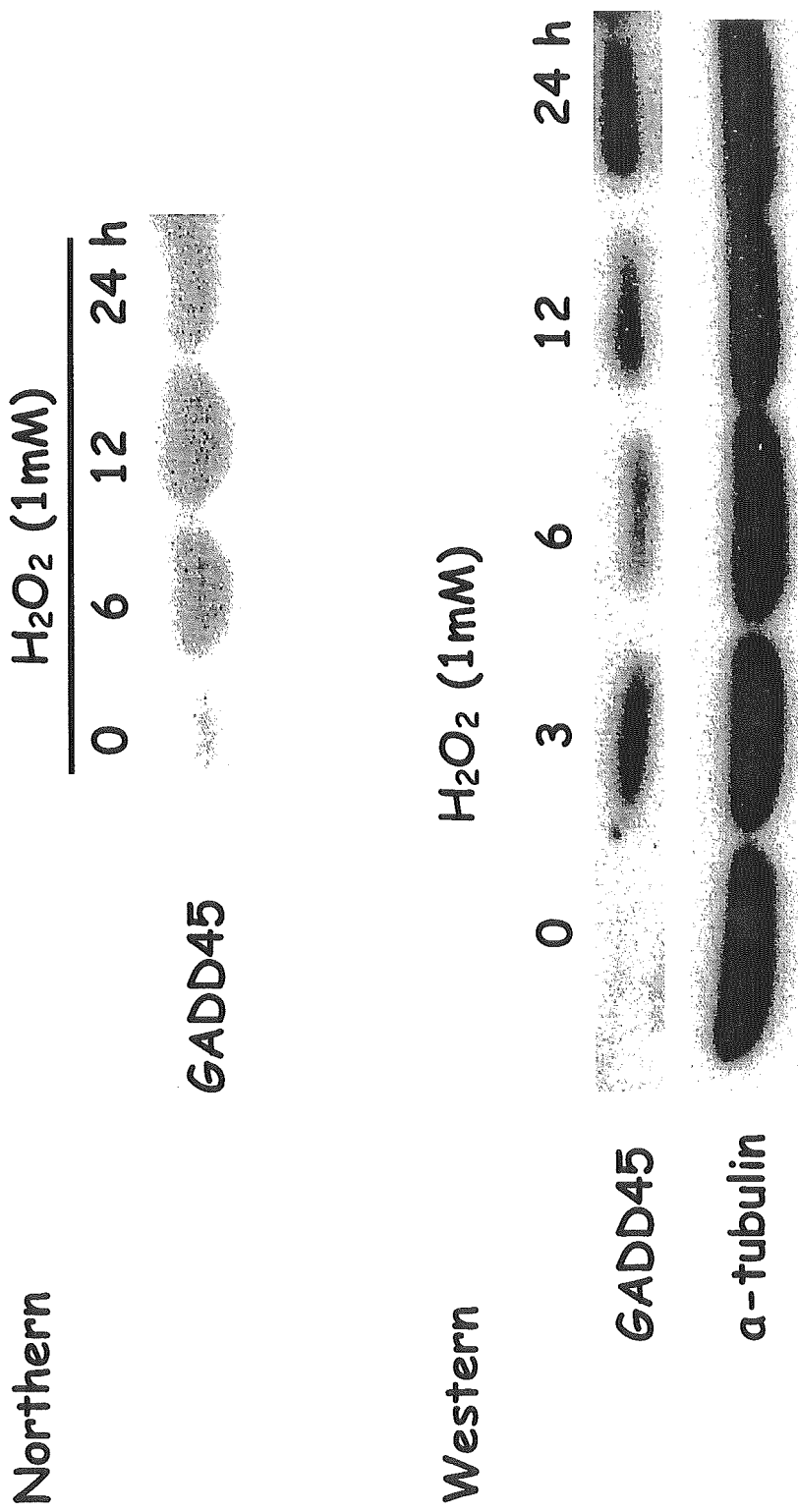
(图14)

Oxidative Stress Activates GADD45 Promoter through FOXO



(图15)

Upregulation of GADD45 by Oxidative Stress

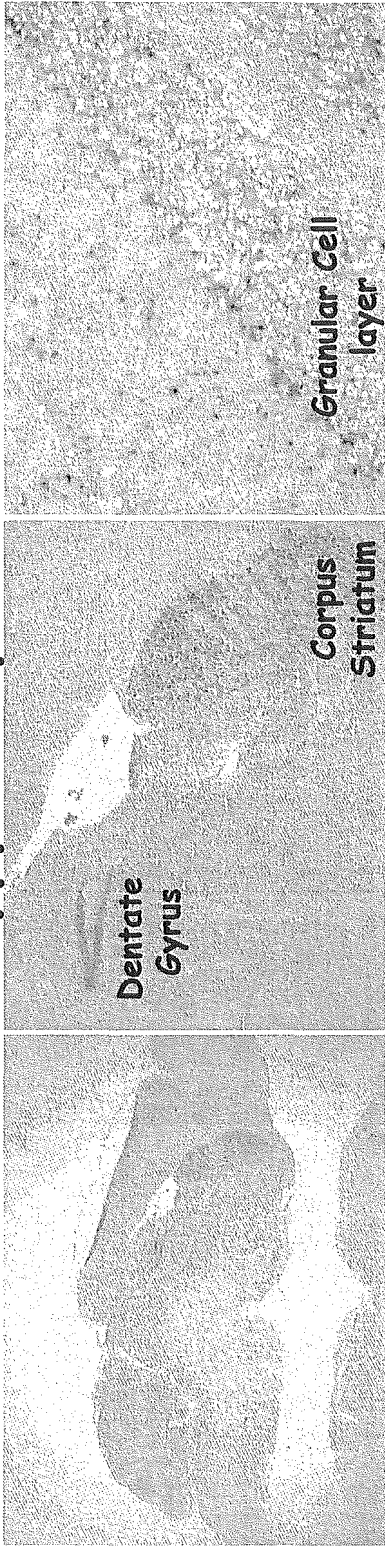


(图16)

Expression Patterns of Foxo family in the Brain

Whole Brain Hypocampus Cerebellum

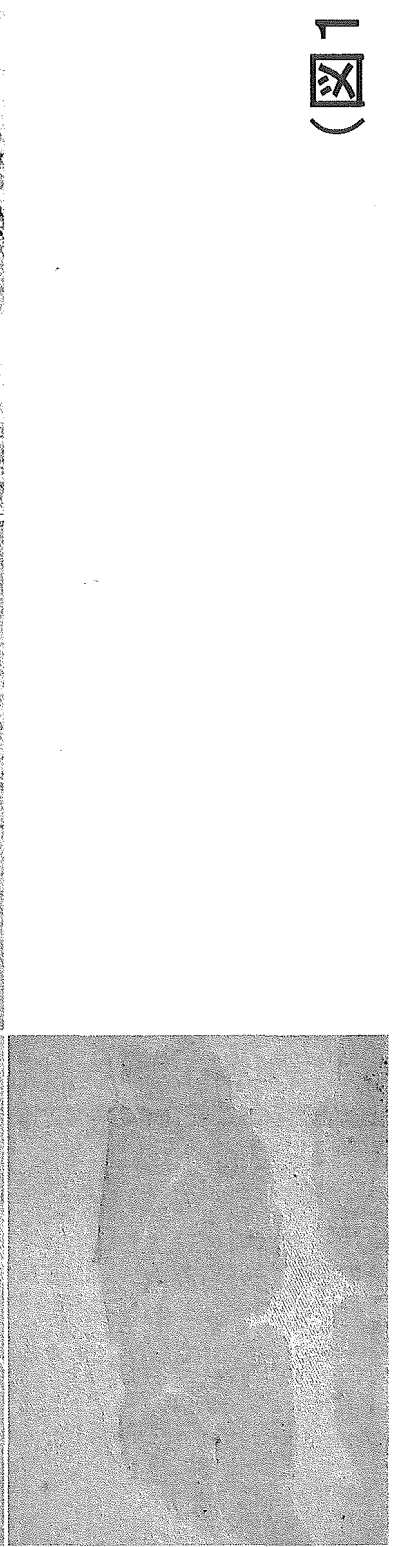
Foxo1



Foxo3

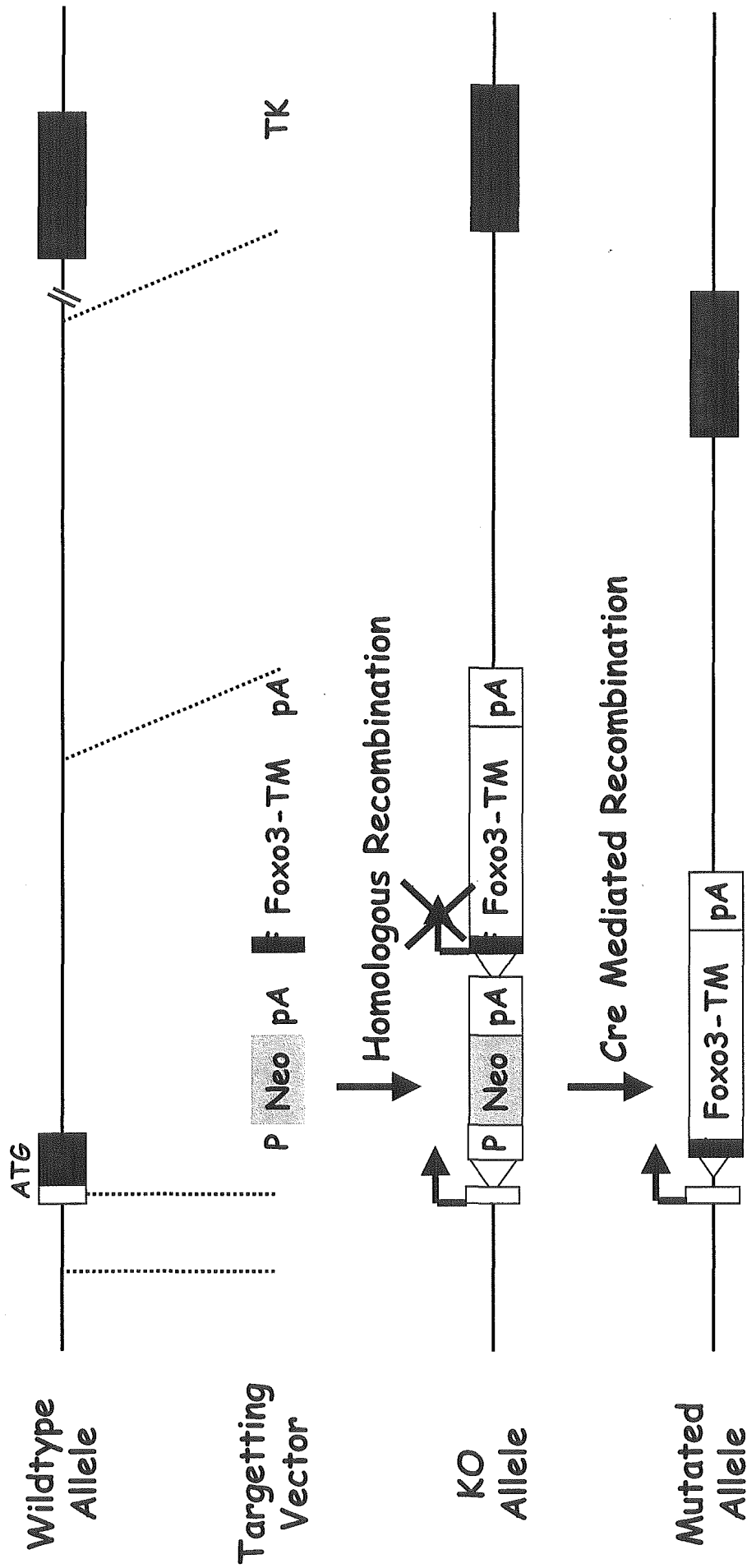


Foxo4



(图17)

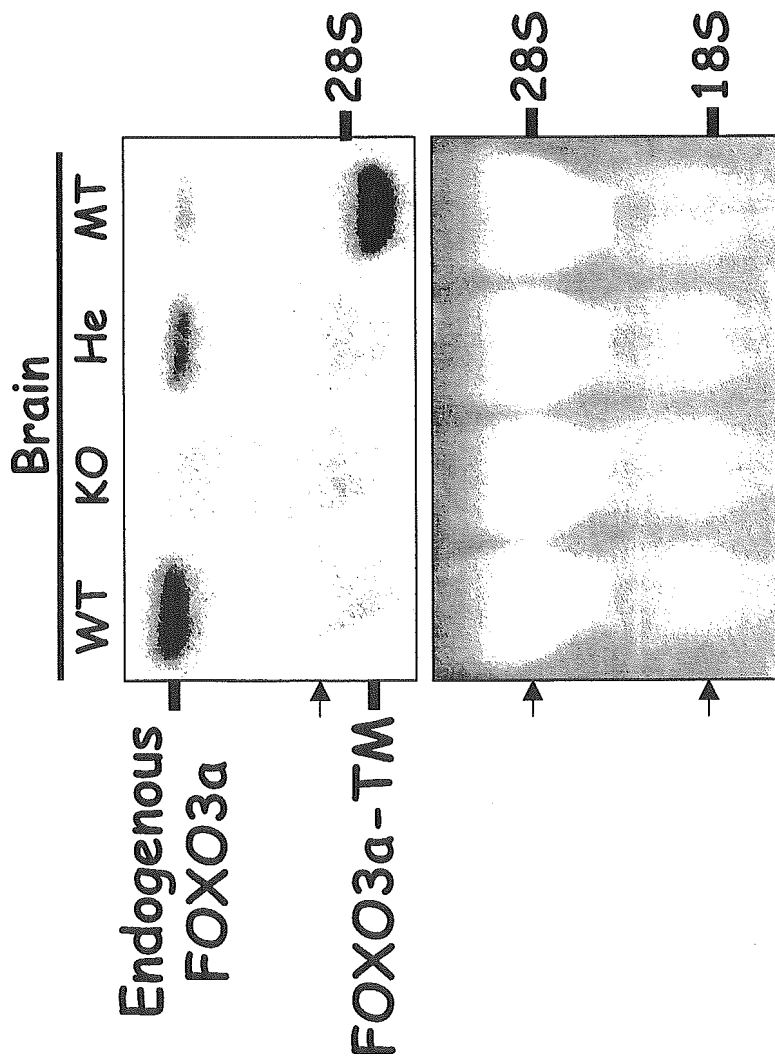
Generations of Foxo3 Loss-of-function and Gain-of-function Mice



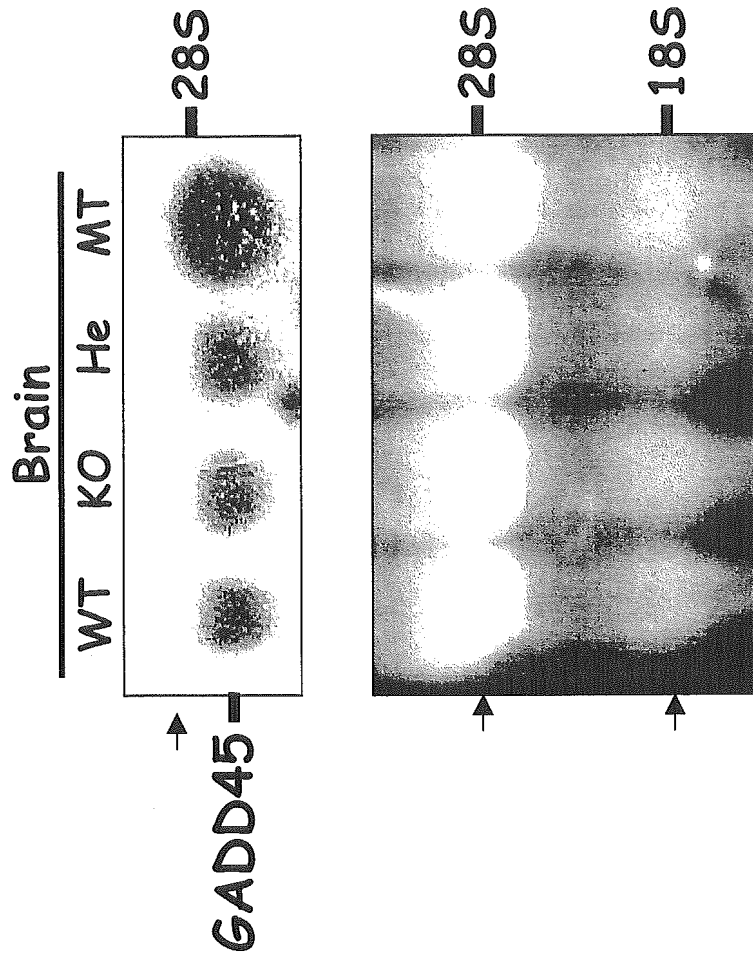
(图18)

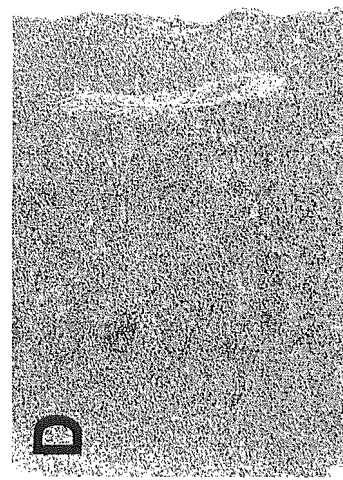
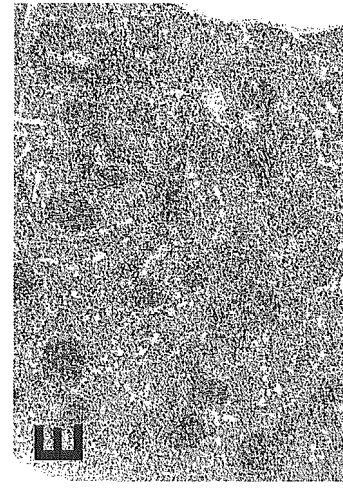
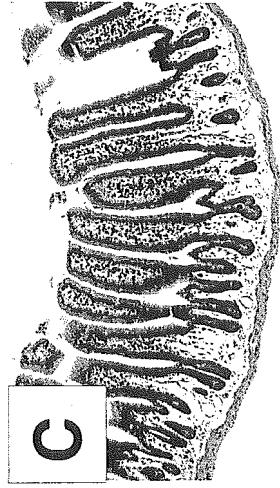
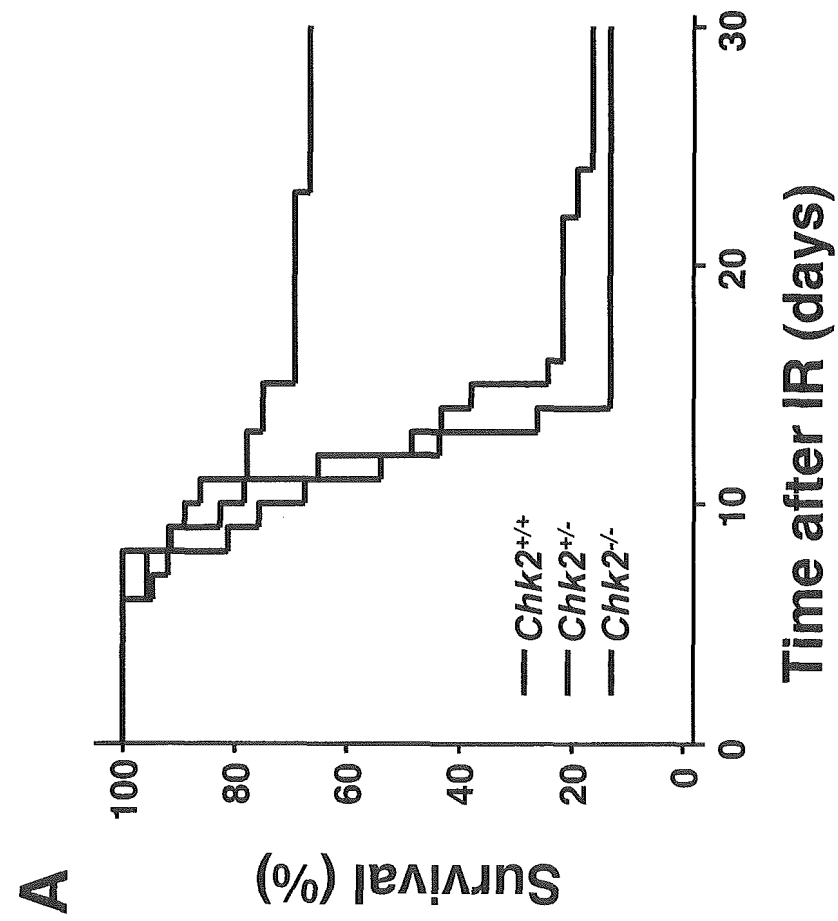
Increased Expression of GADD45 in FOXO3a Gain-of-Function Mice

FKHRL1

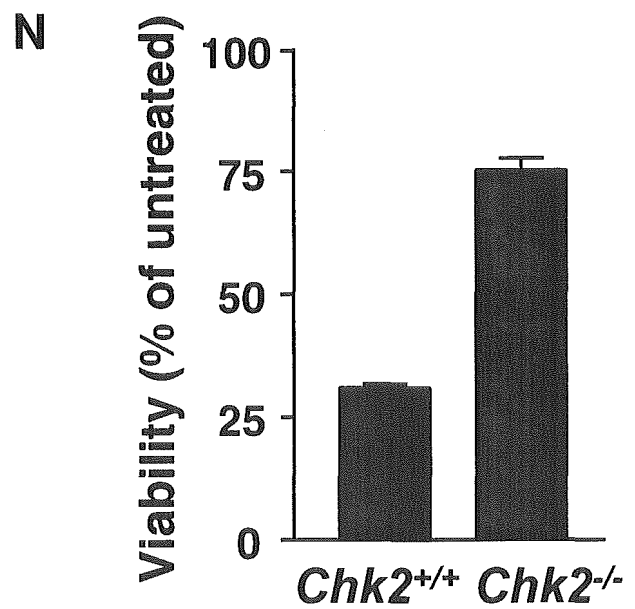
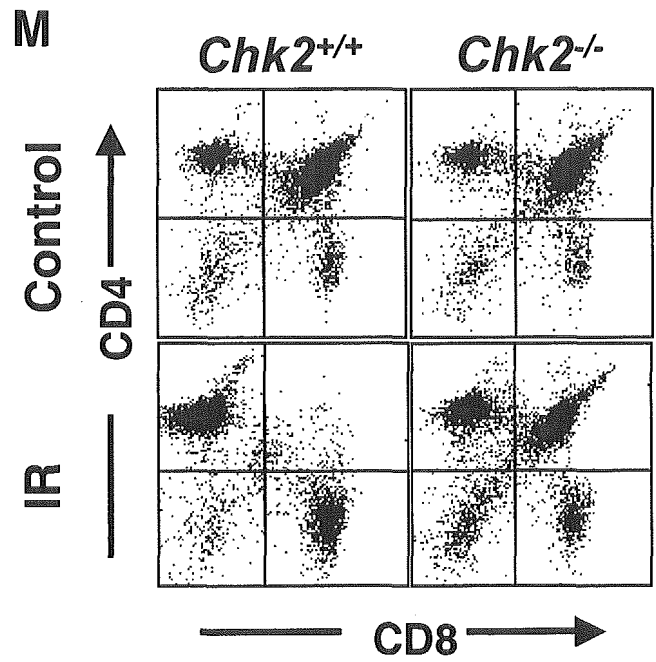
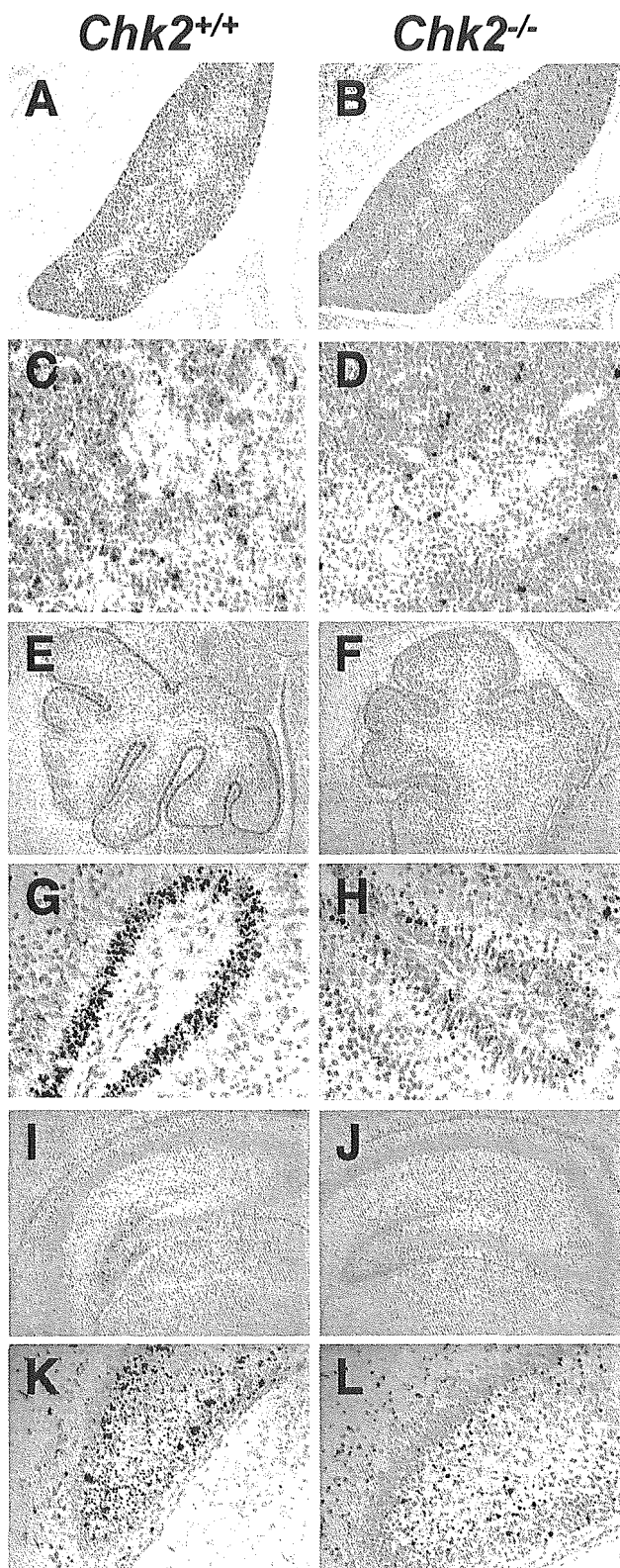


GADD45

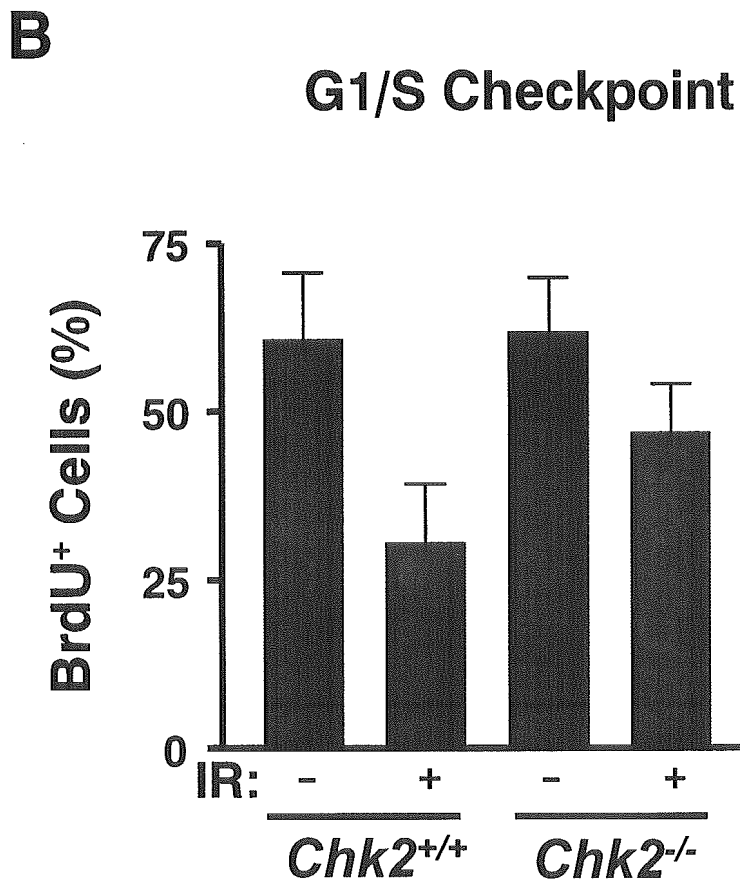
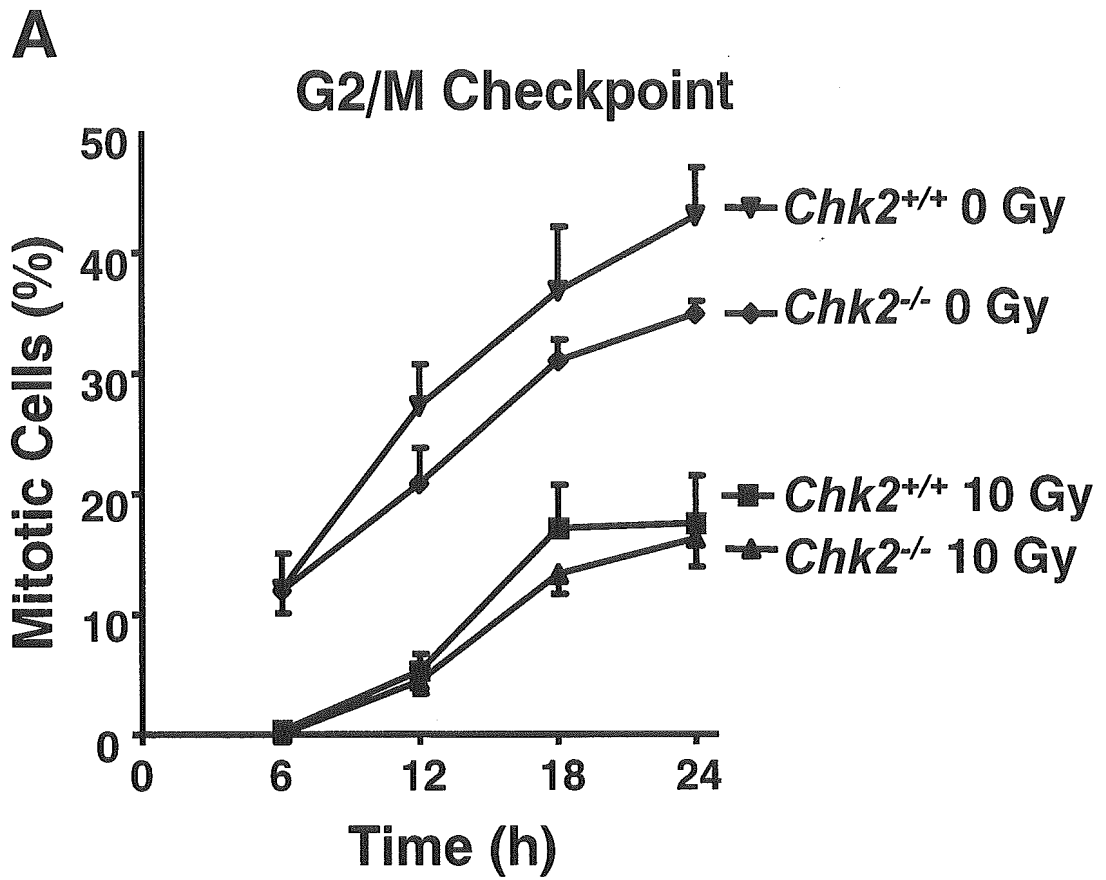




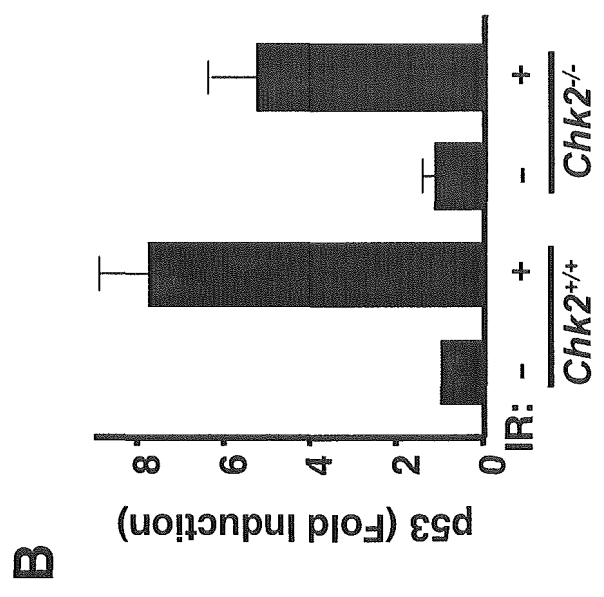
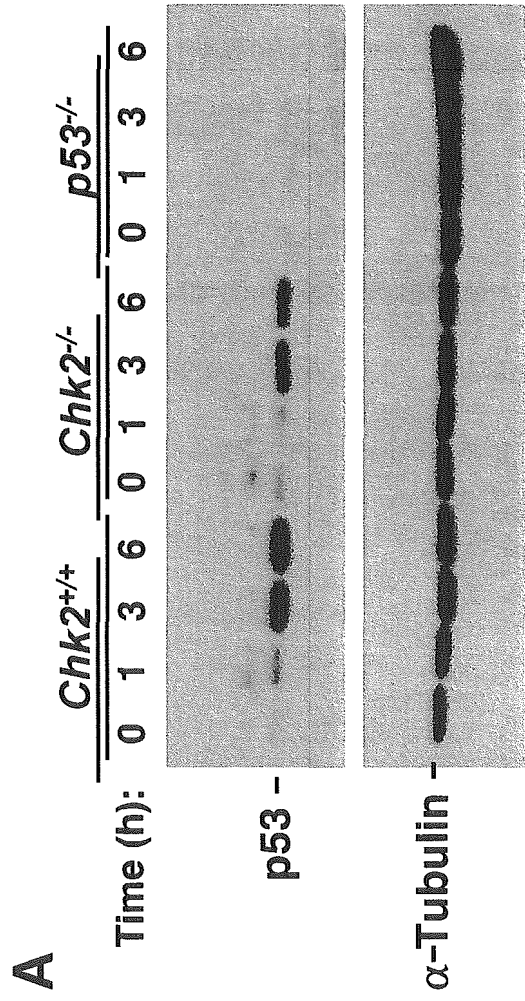
(图20)



(图21)



(图22)



(图23)