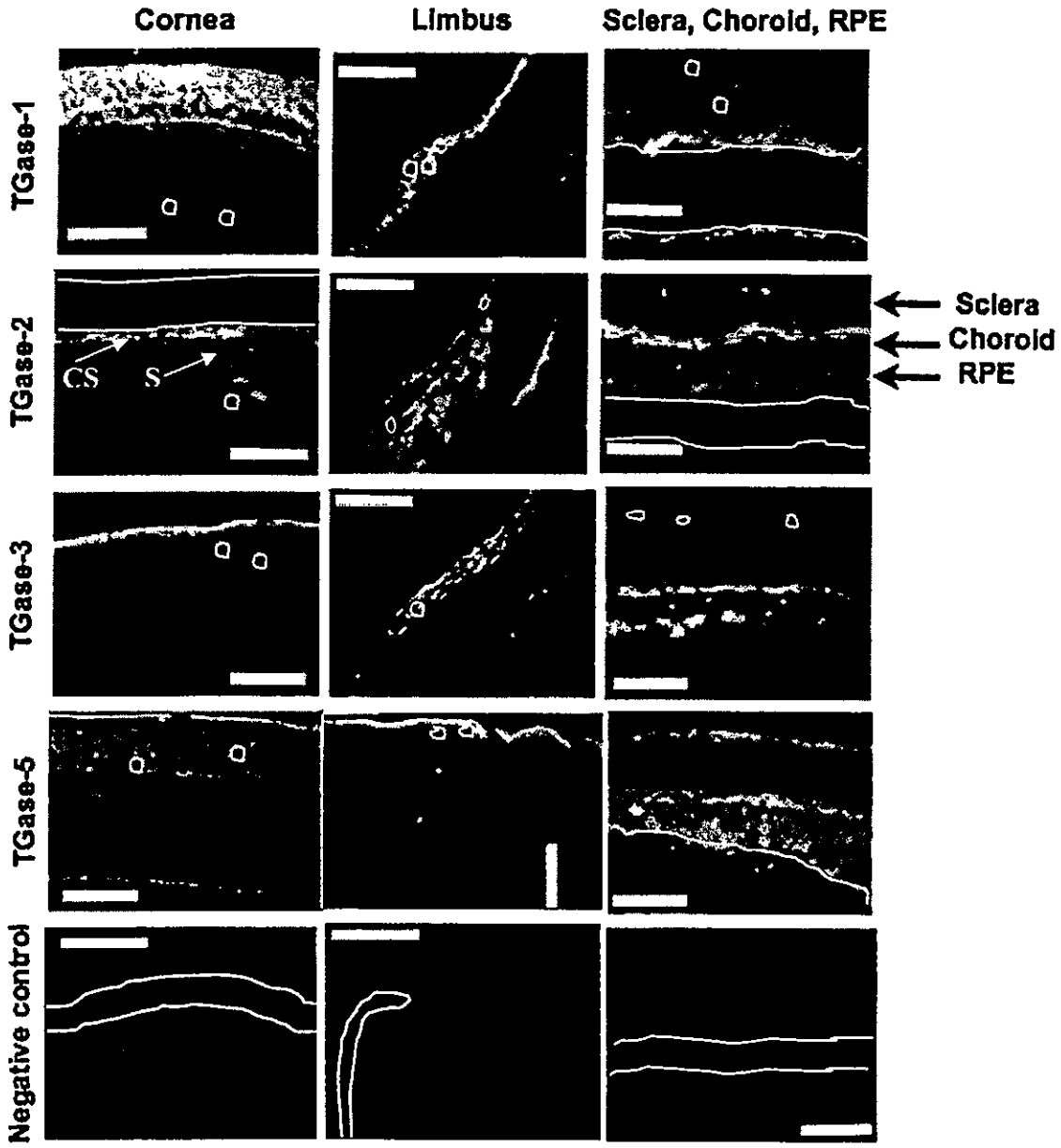

Cornea
Limbus
Sclera, Choroid, RPE
TGase-1
TGase-2
TGase-3
TGase-5
Negative control
CS
S
Sclera
Choroid
RPE

Figure 1A

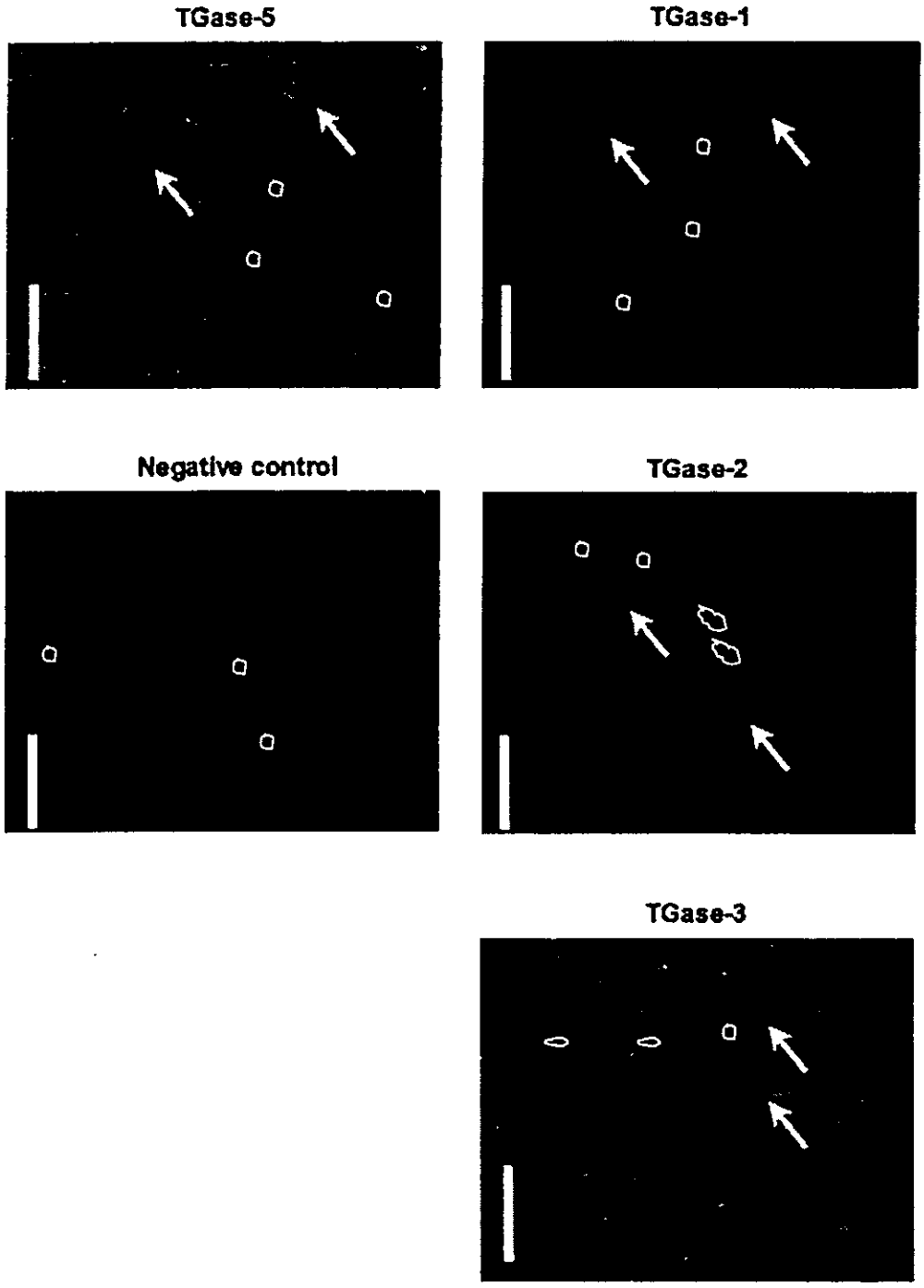


Figure 1B

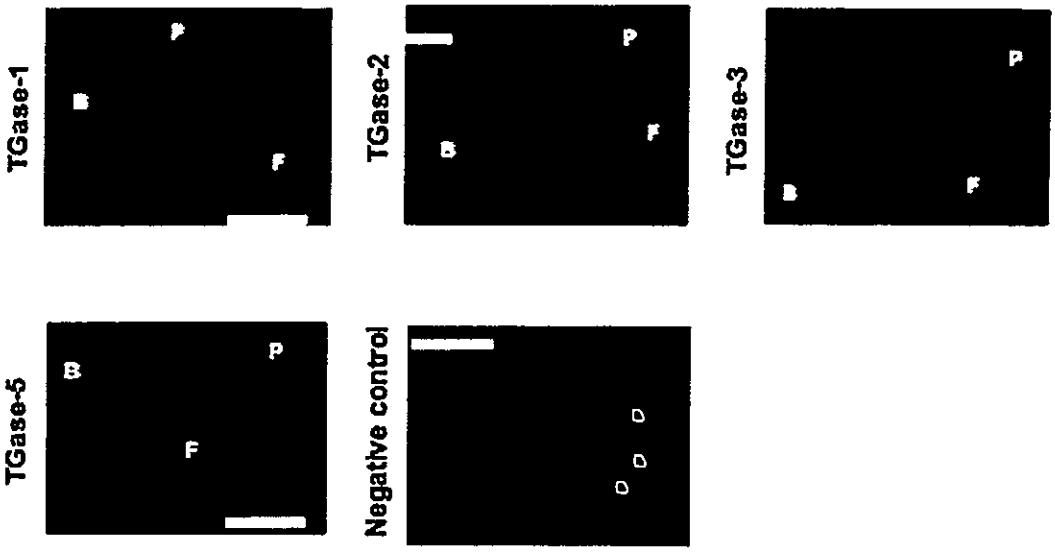


Figure 2A

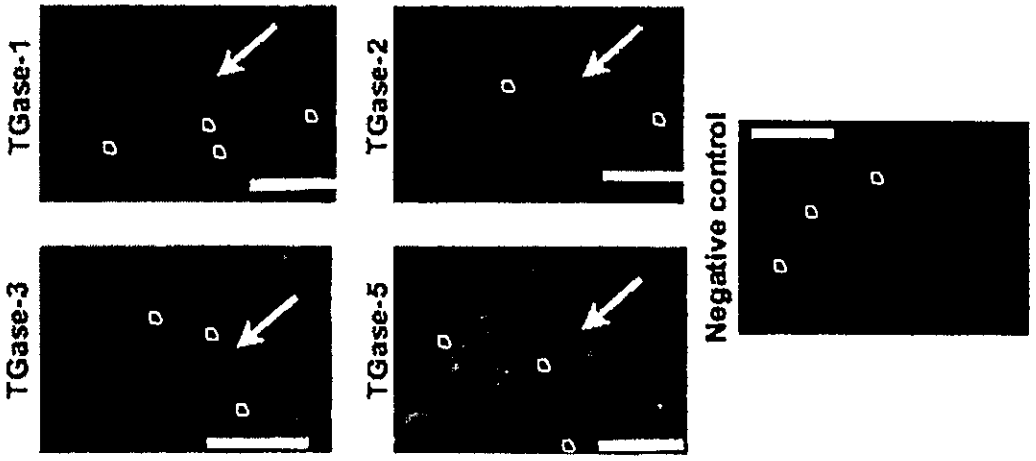


Figure 2B

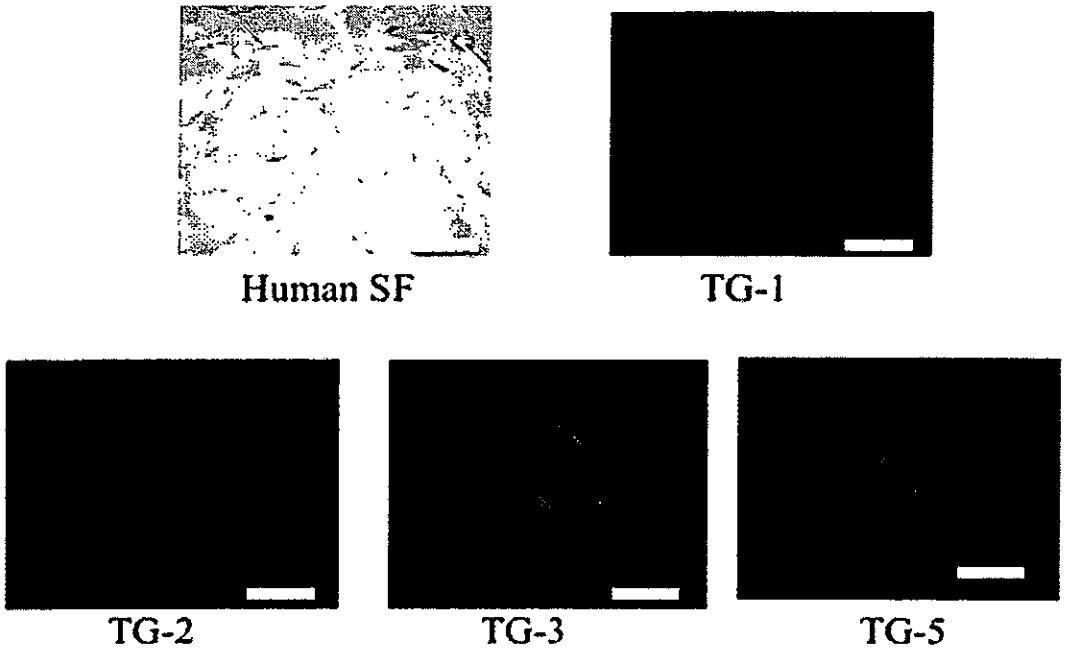


Figure 3A

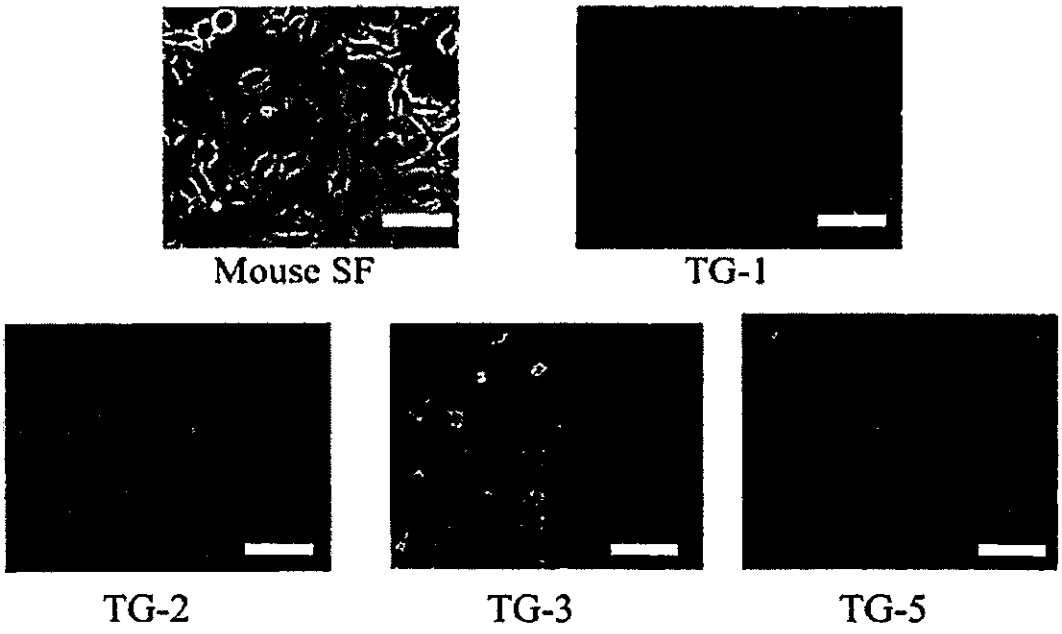


Figure 3B

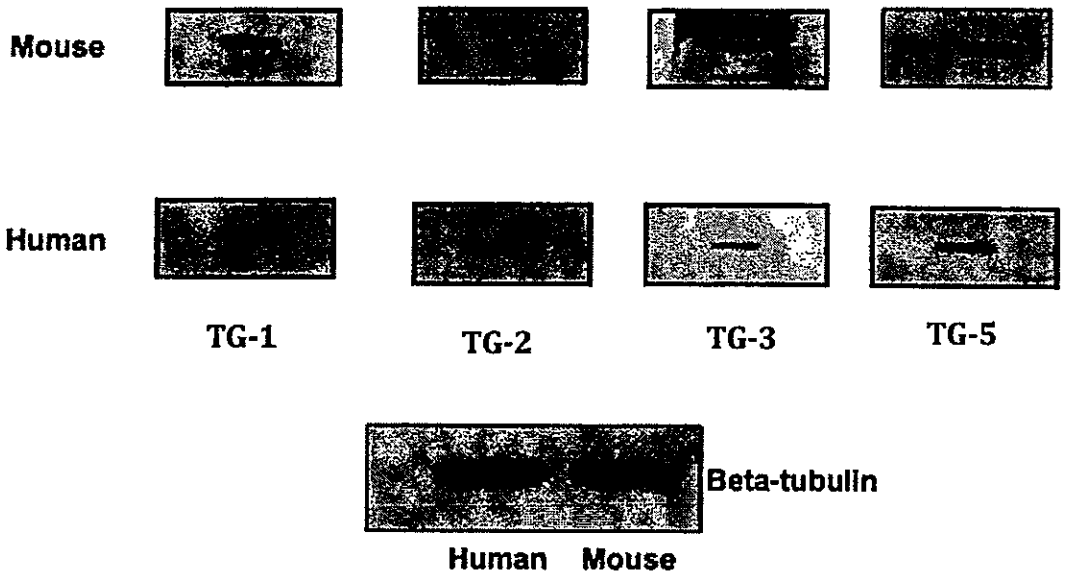


Figure 4

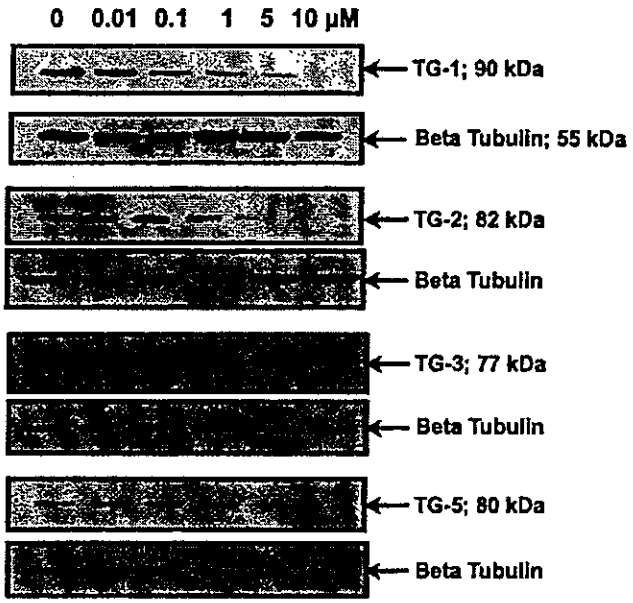


Figure 5A

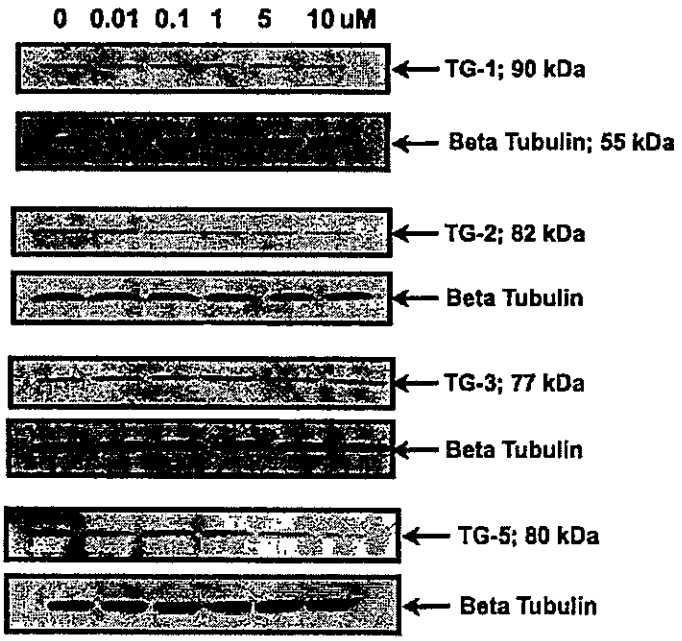


Figure 5B

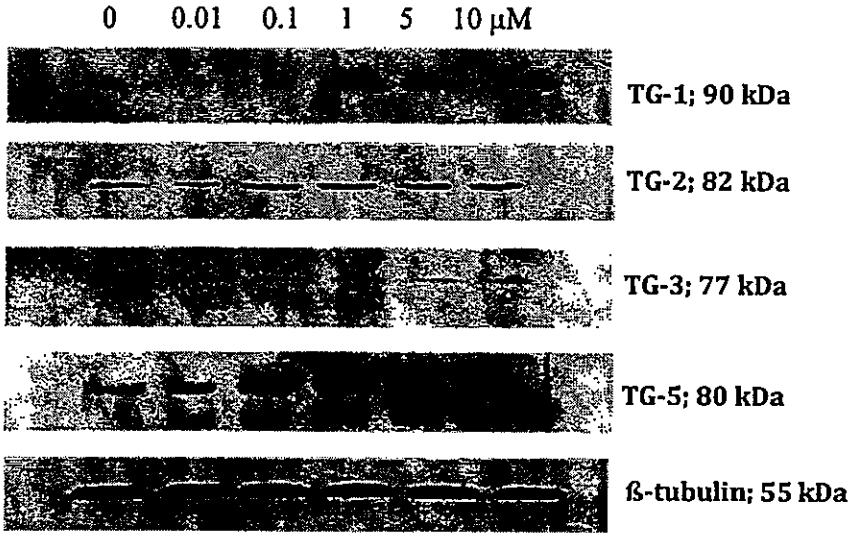


Figure 6A

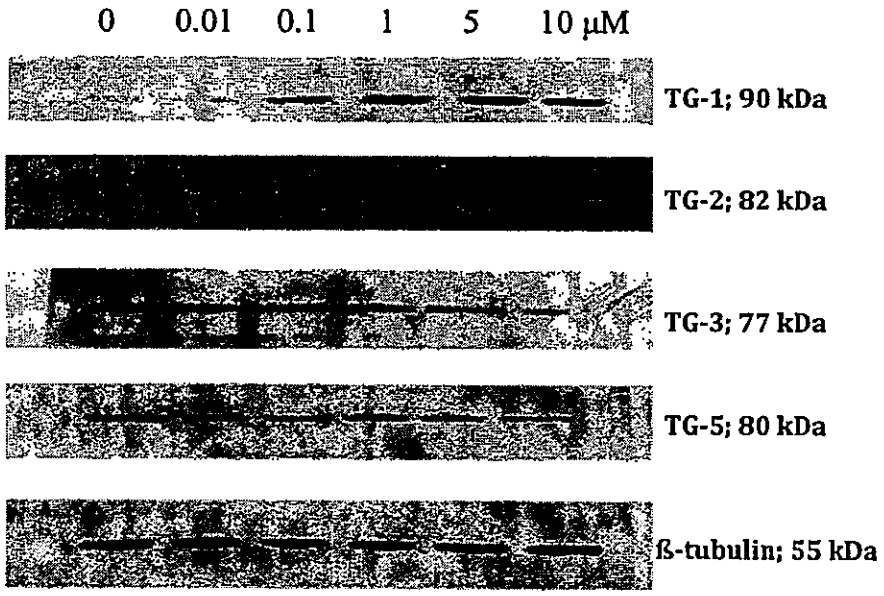


Figure 6B

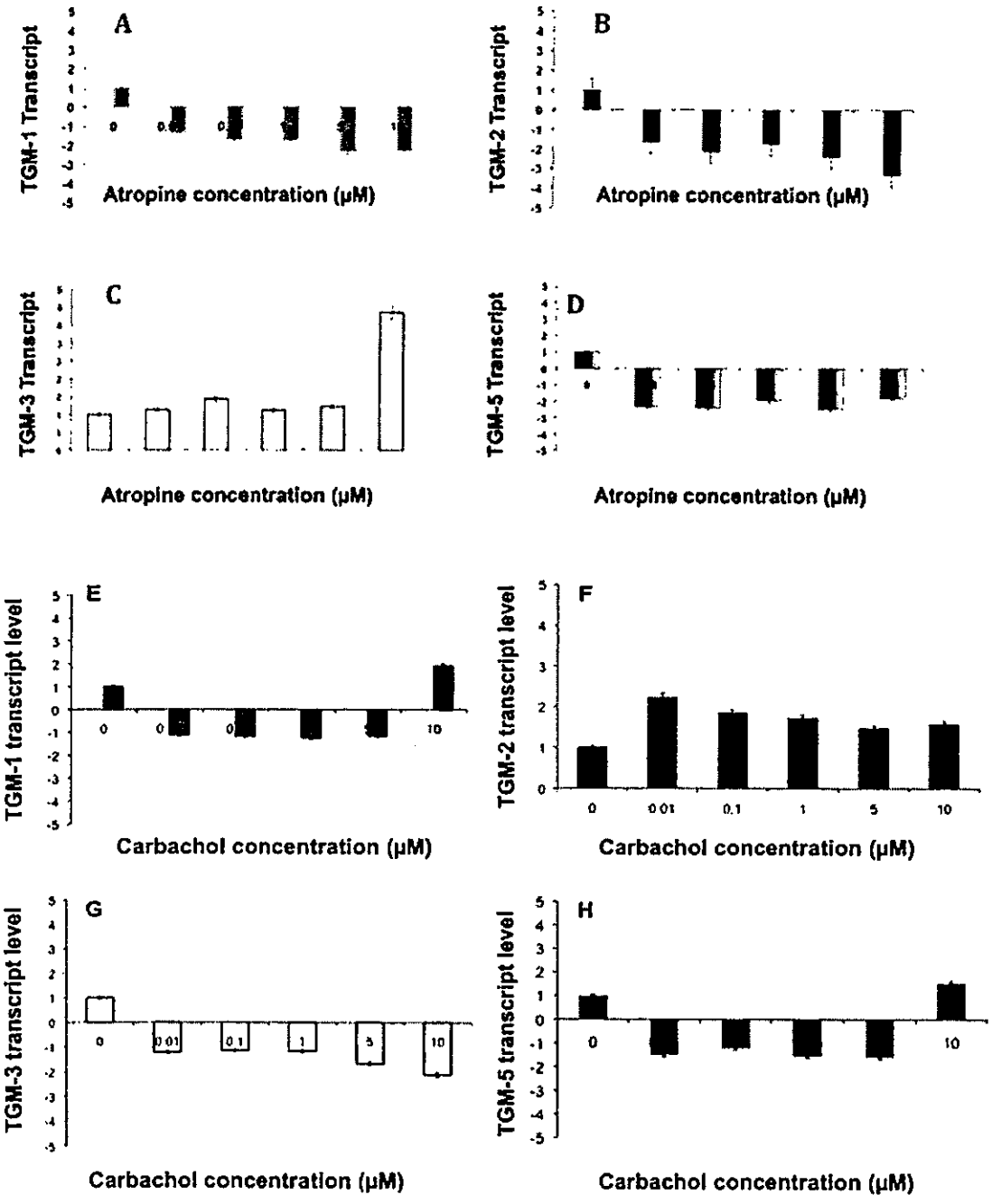

A
TGM-1 Transcript
Atropine concentration (μM)
B
TGM-2 Transcript
Atropine concentration (μM)
C
TGM-3 Transcript
Atropine concentration (μM)
D
TGM-5 Transcript
Atropine concentration (μM)
E
TGM-1 transcript level
Carbachol concentration (μM)
F
TGM-2 transcript level
0
0.01
0.1
1
5
10
Carbachol concentration (μM)
G
TGM-3 transcript level
Carbachol concentration (μM)
H
TGM-5 transcript level
Carbachol concentration (μM)

Figure 7

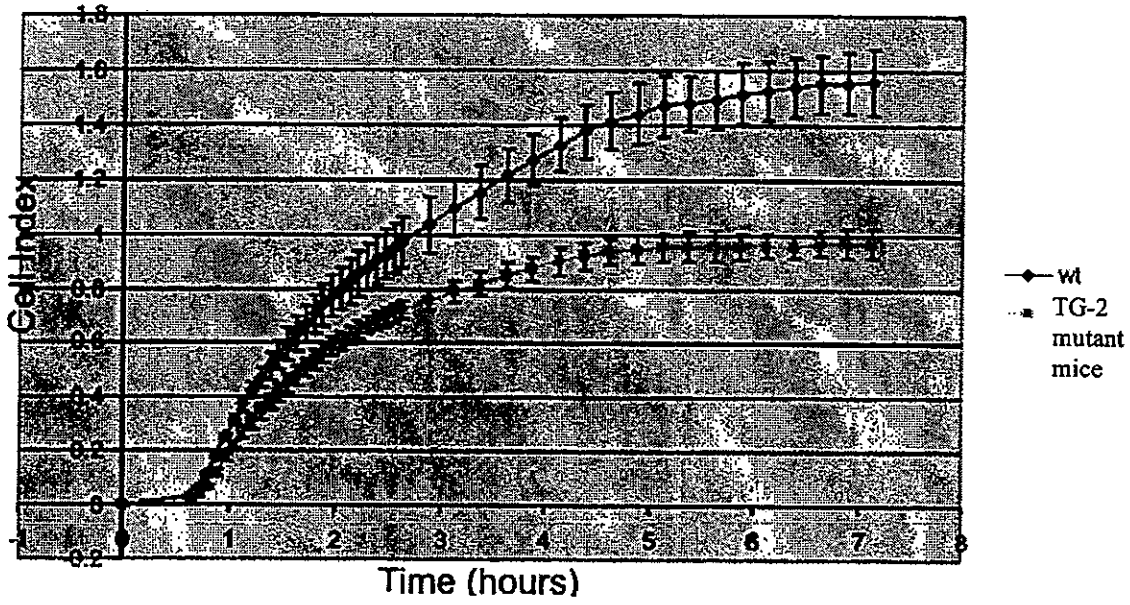


Figure 8

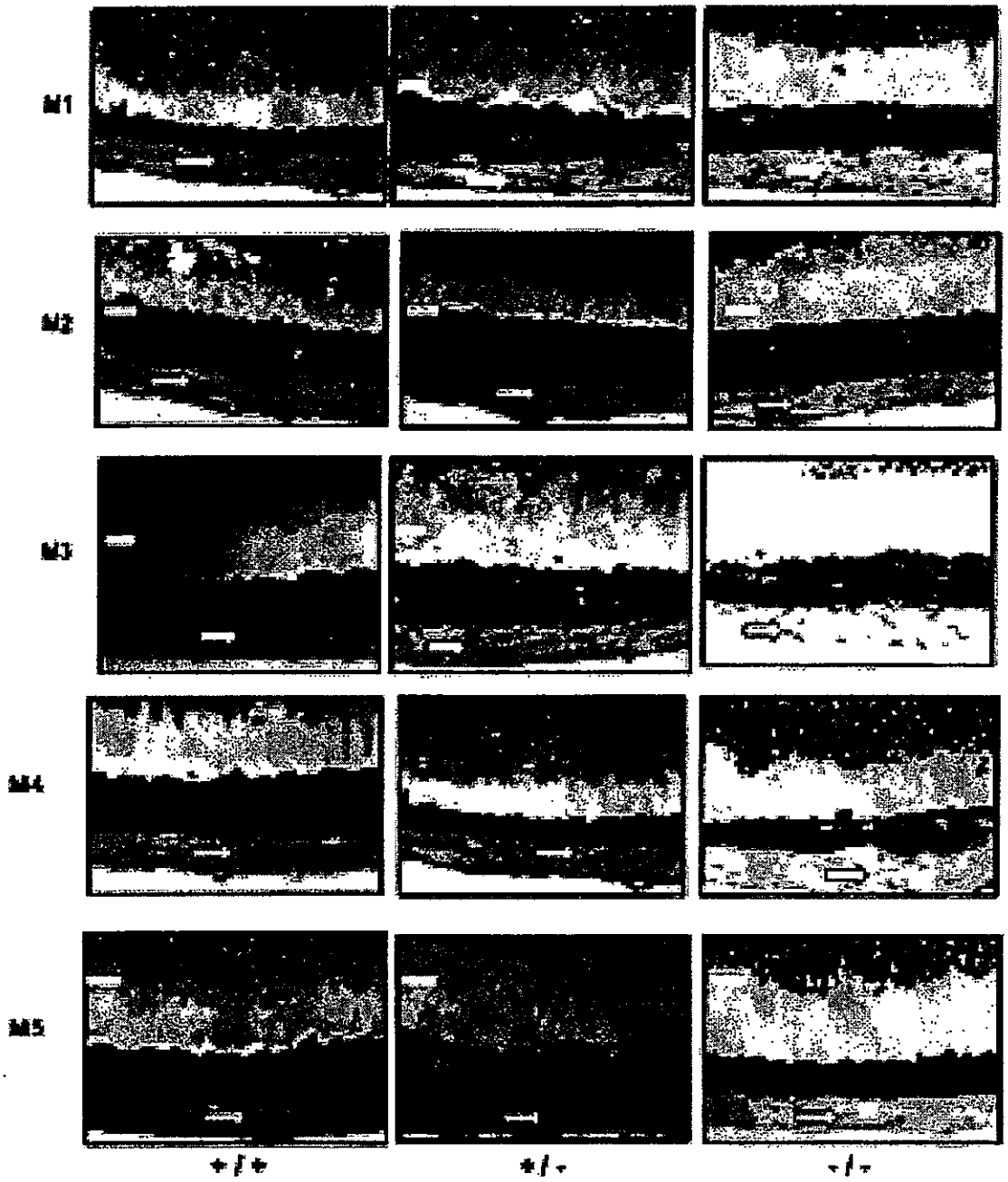


Figure 9A

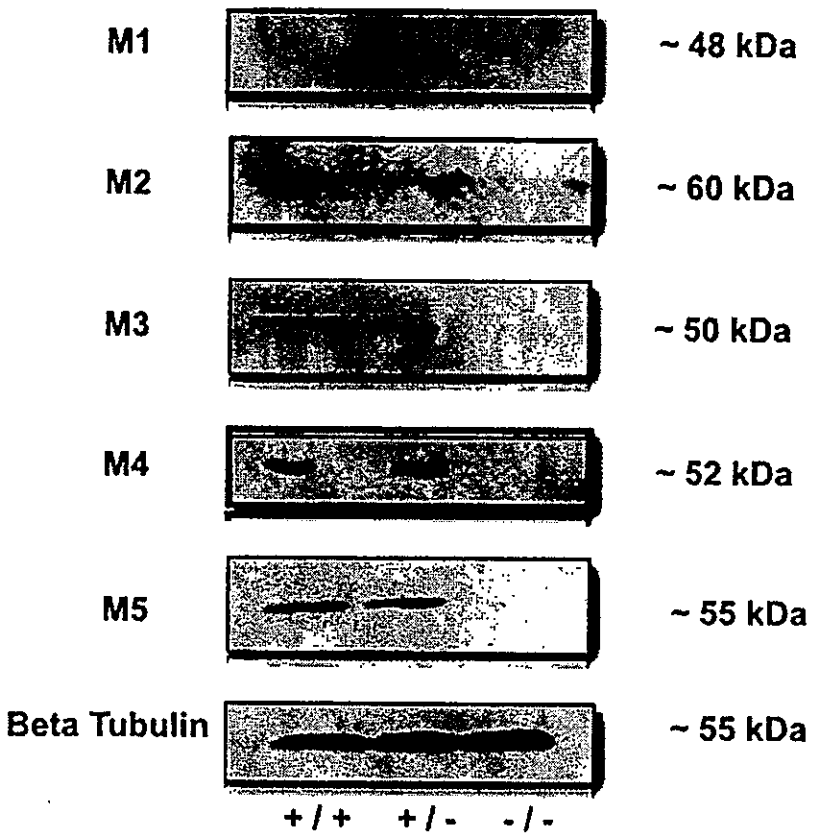

M1
~ 48 kDa
M2
~ 60 kDa
M3
~ 50 kDa
M4
~ 52 kDa
M5
~ 55 kDa
Beta Tubulin
~ 55 kDa
+/+ +/- -/-

Figure 9B

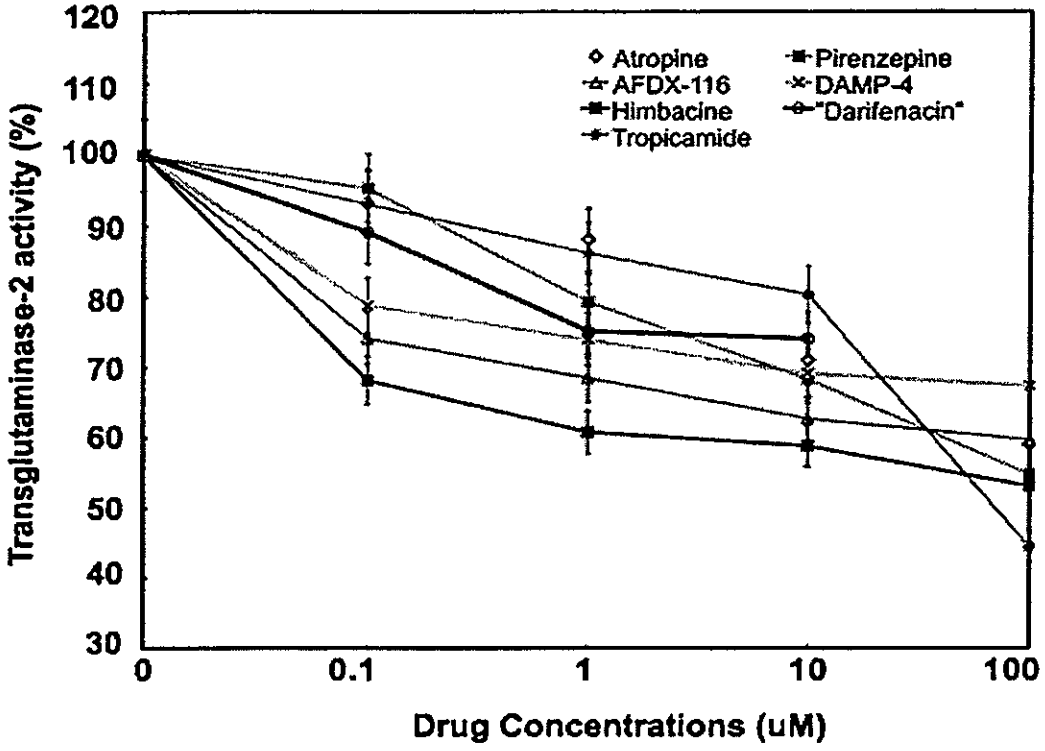


Figure 10A

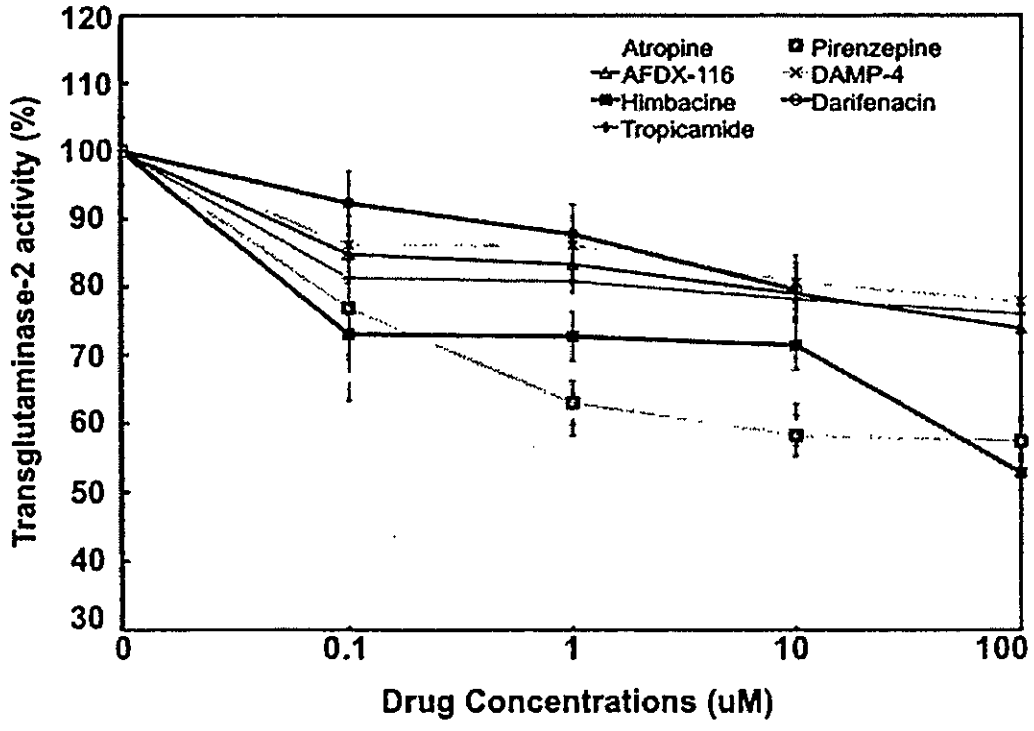


Figure 10B

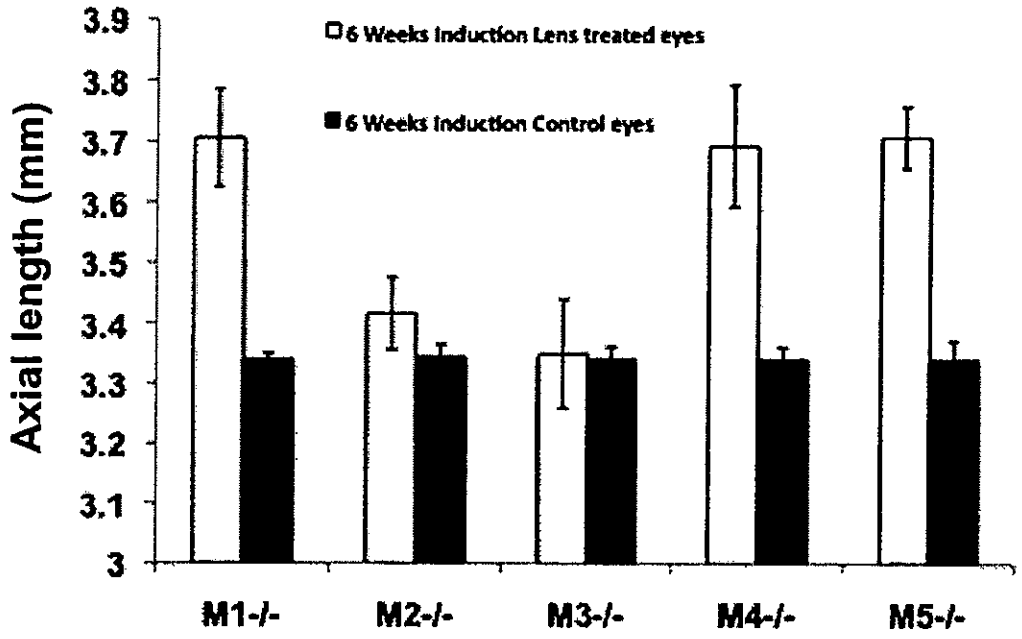


Figure 11A

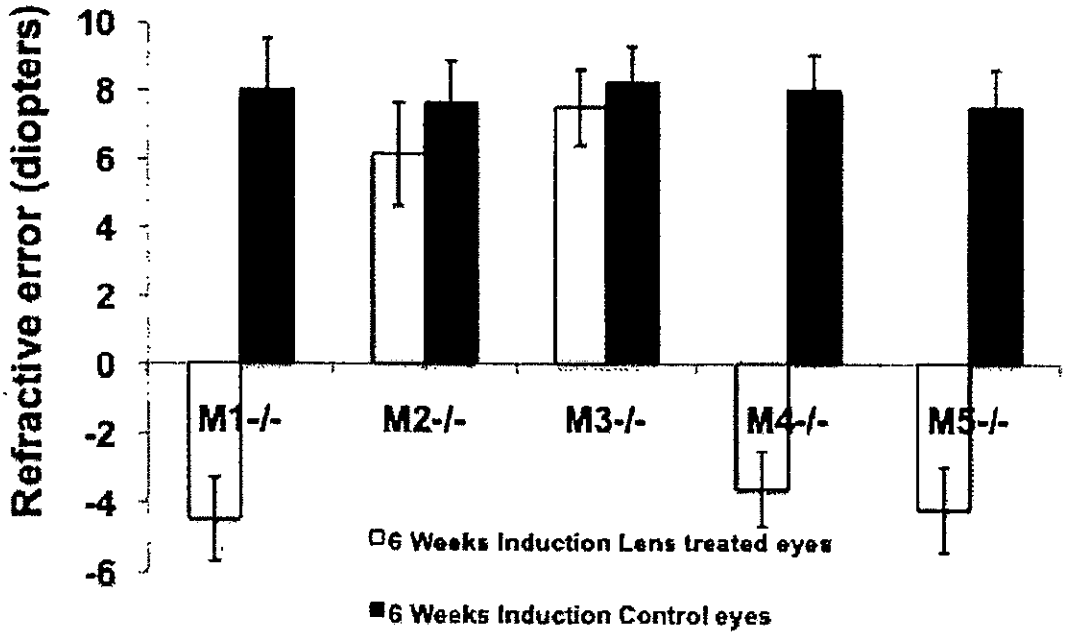


Figure 11B

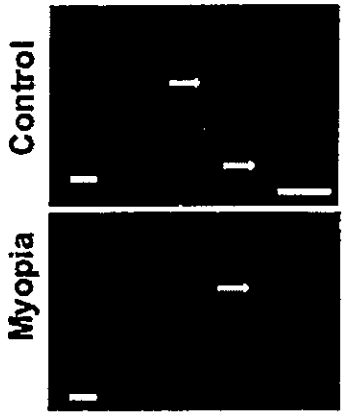


Figure 12A

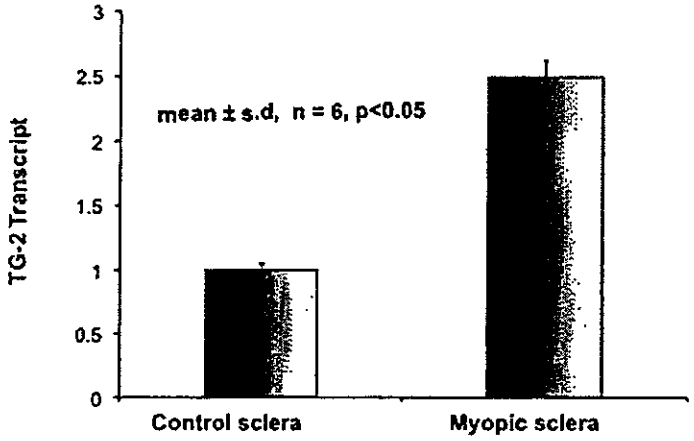


Figure 12B

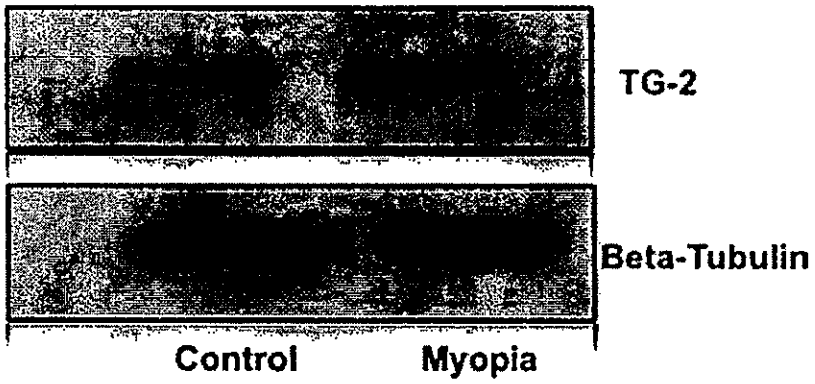


Figure 12C

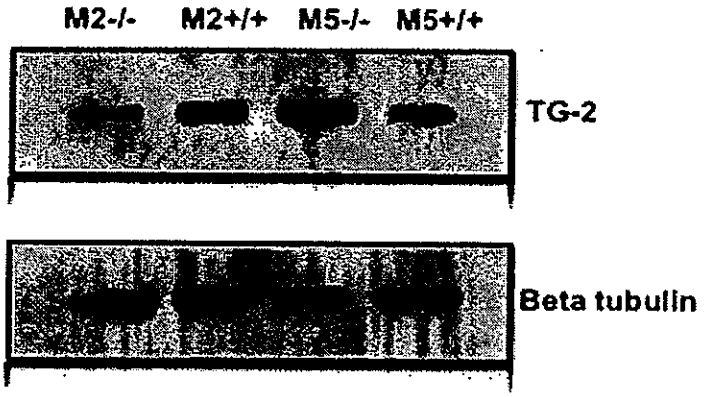


Figure 12D

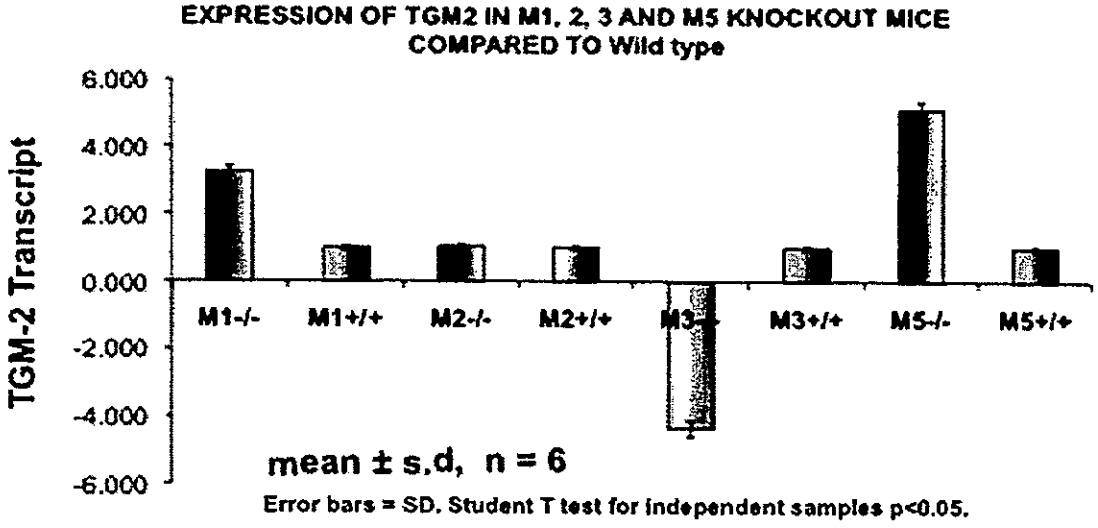


Figure 12E

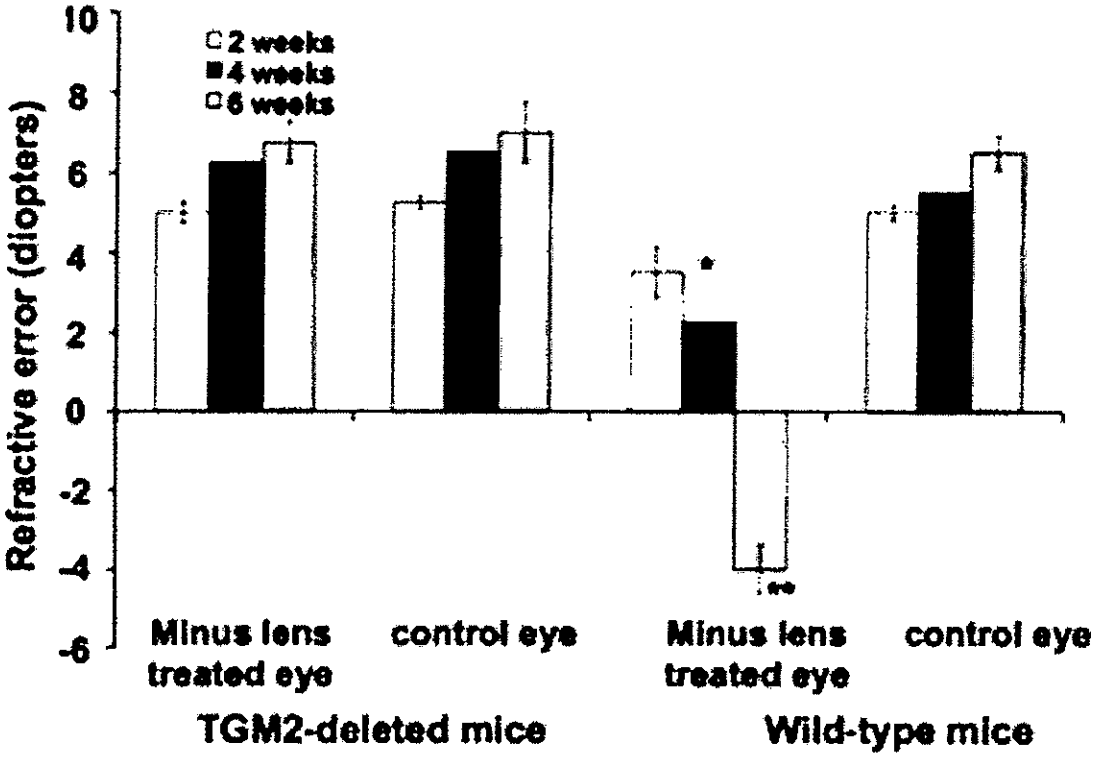


Figure 13A

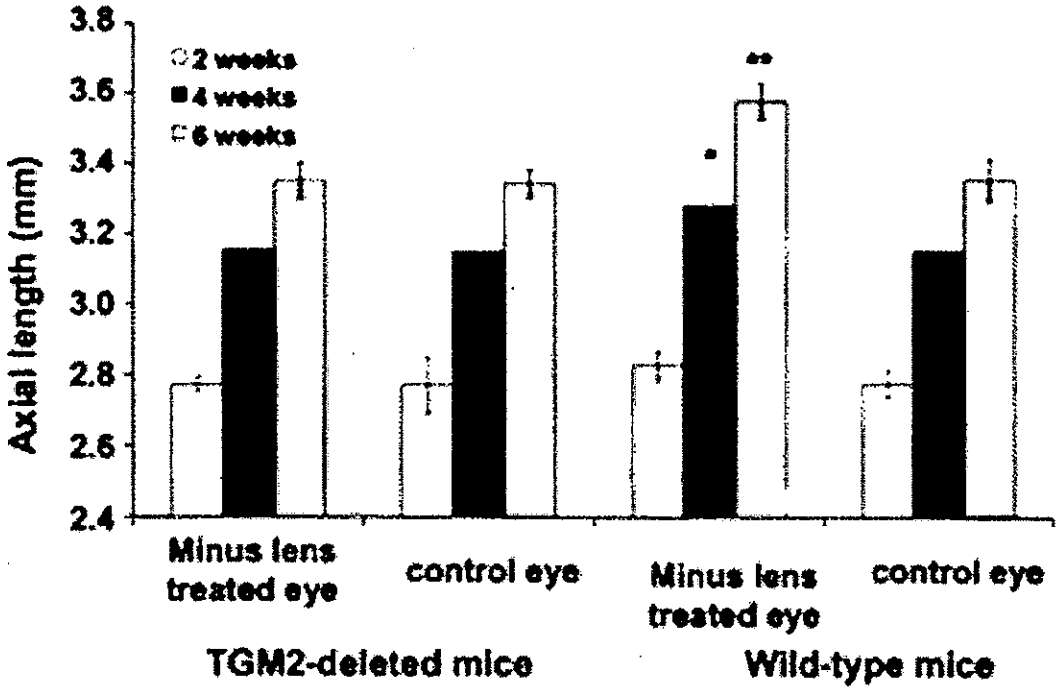


Figure 13B

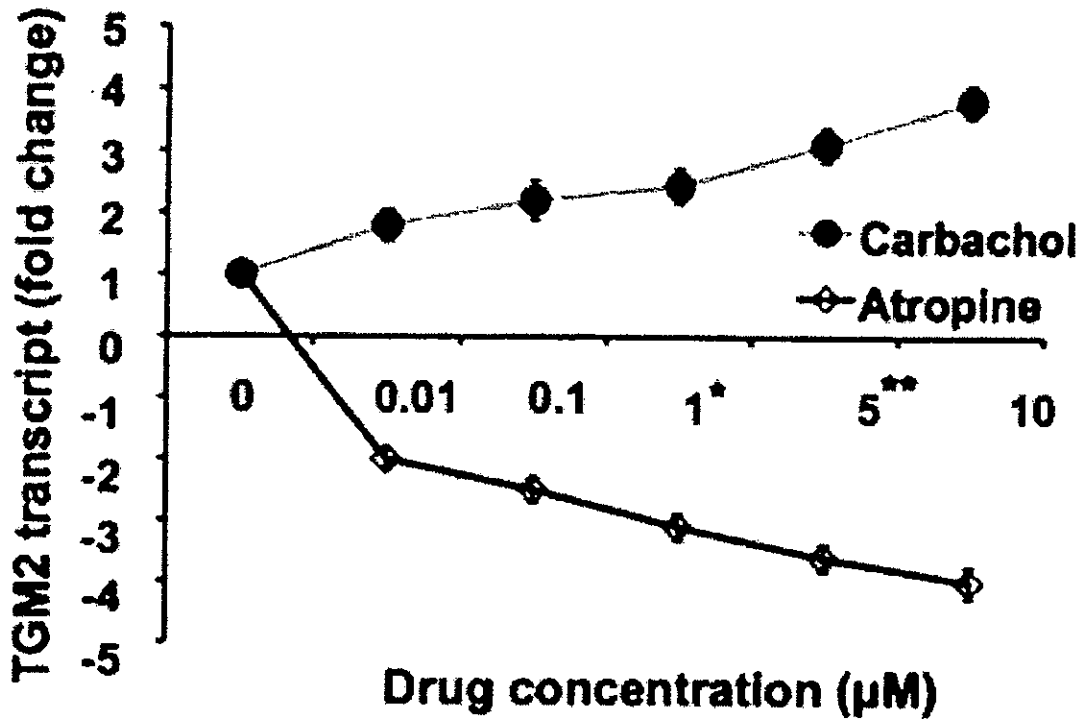


Figure 13C

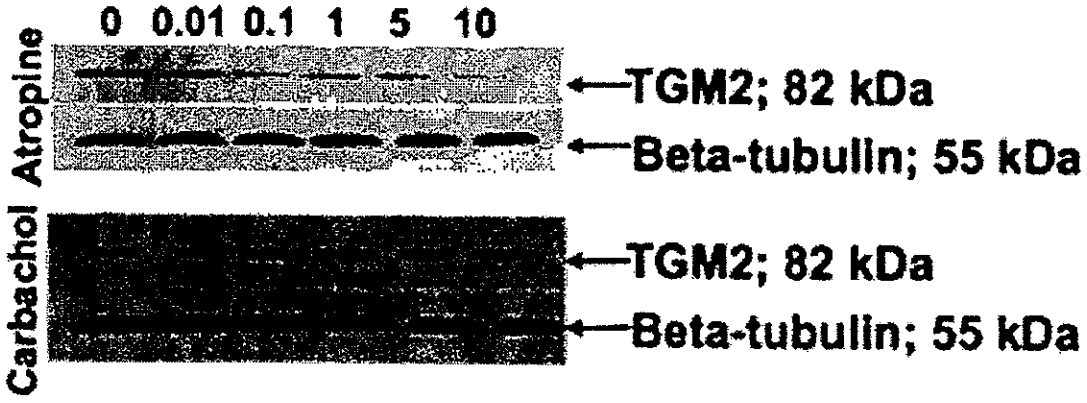


Figure 13D

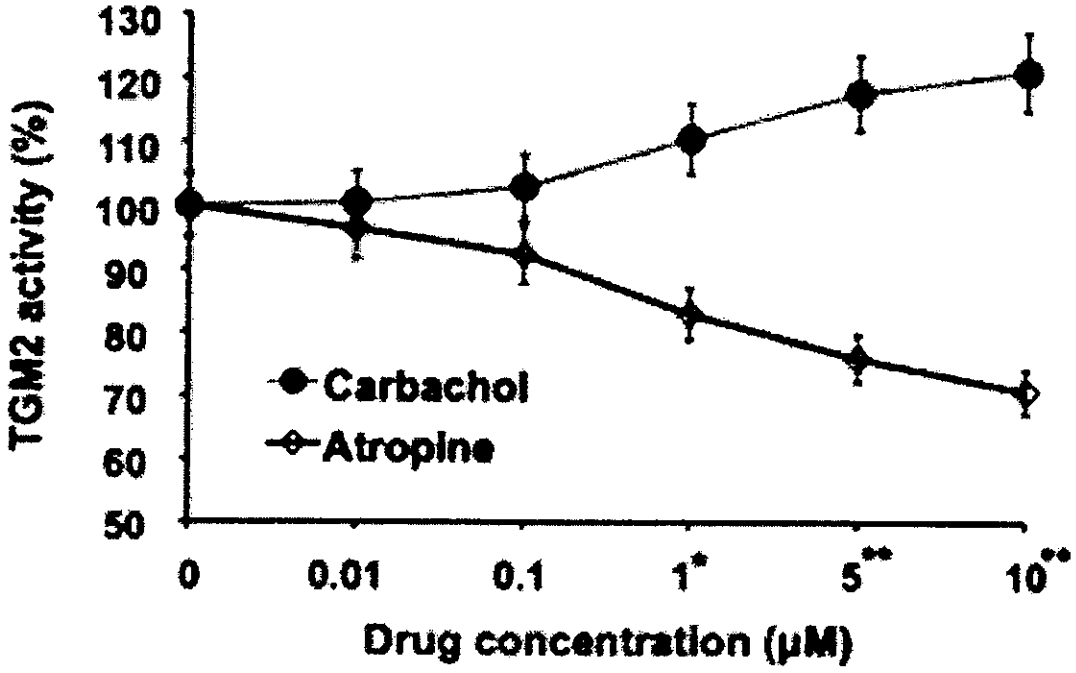

130
120
110
100
90
80
70
60
50
TGM2 activity (%)
Carbachol
Atropine
0
0.01
0.1
1*
5**
10**
Drug concentration (μM)

Figure 13E

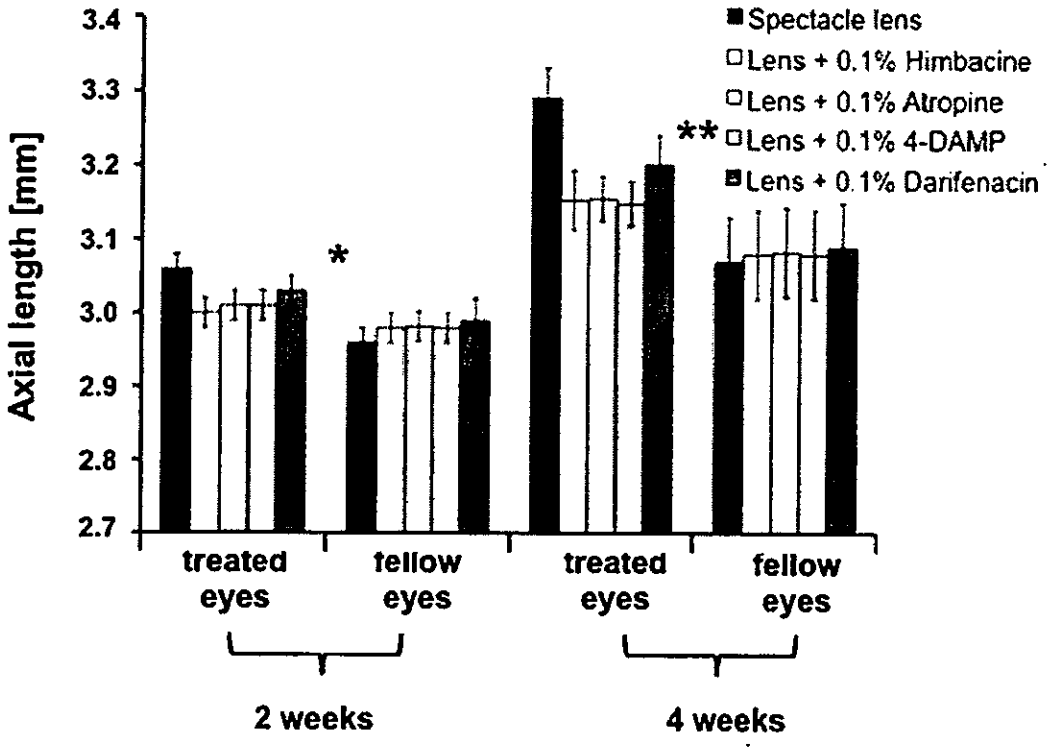


Figure 14A

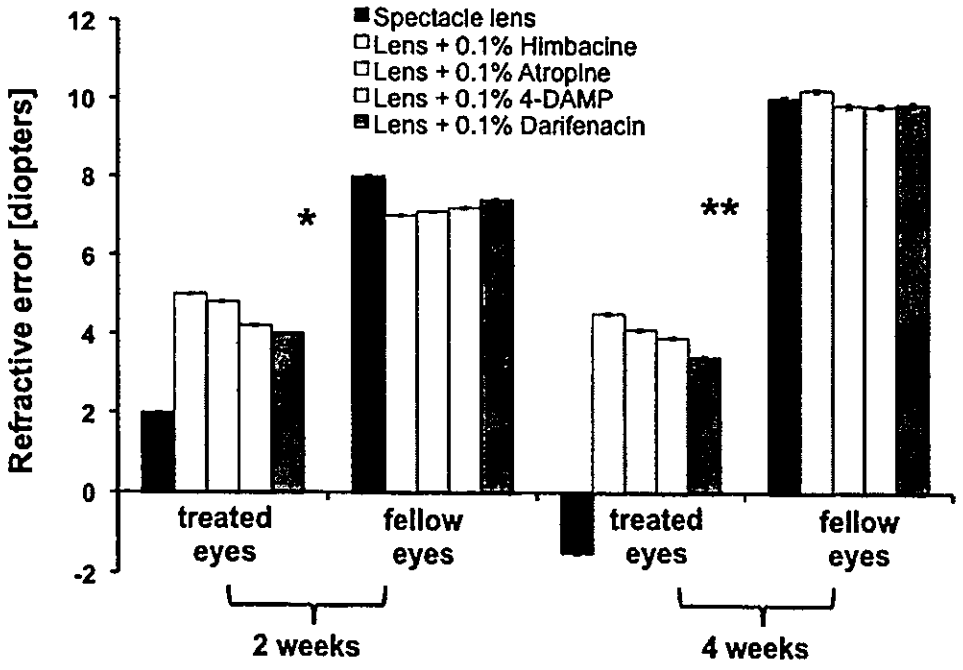


Figure 14B

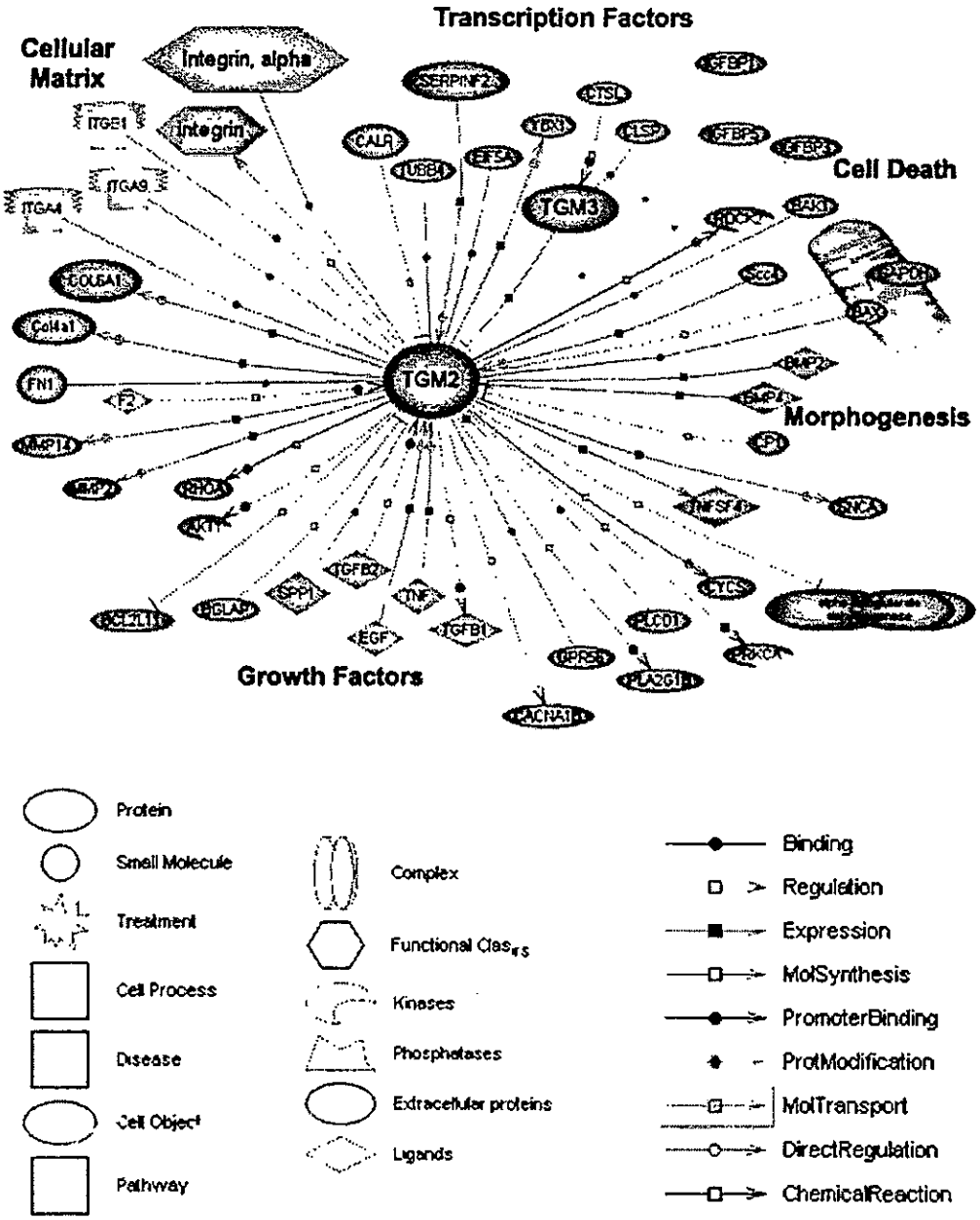

Transcription Factors
Cellular Matrix
Integrin, alpha
Integrin
ITGB1
ITGA4
ITGA9
SERPINF2
CALR
TUBB4
EIF5A
TSL
YBX1
LSP1
IGFBP1
IGFBP5
IGFBP3
TGM3
TGM2
Cell Death
BAK1
ROCK2
SCC
APOB
BAX
COL6A1
Col4a1
FN1
F2
MMP14
MMP2
RHOA
AKT1
BMP2
BMP4
Morphogenesis
CP1
TNFSF4
RNCA
CYC
PCDD1
PRSS1
PLA2G1B
ACHA1
PCL2L11
BLAP
SPP1
TGFB2
TNF
EGF
TGFB1
Growth Factors
Protein
Small Molecule
Treatment
Cell Process
Disease
Cell Object
Pathway
Complex
Functional Class
Kinases
Phosphatases
Extracellular proteins
Ligands
Binding
Regulation
Expression
MolSynthesis
PromoterBinding
ProtModification
MolTransport
DirectRegulation
ChemicalReaction

Figure 15

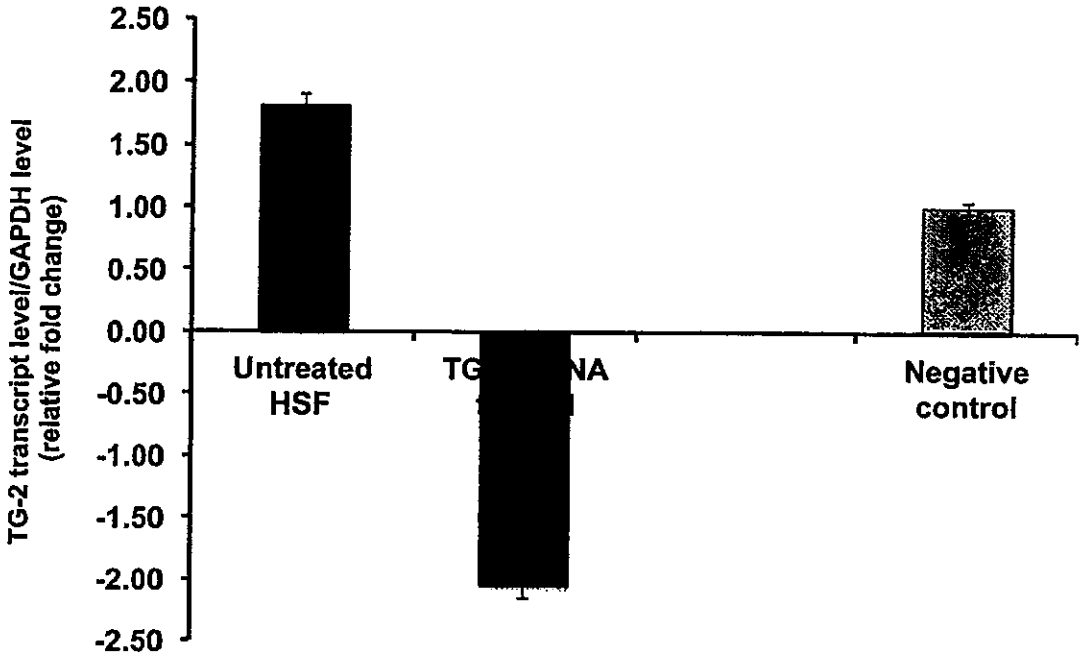

2.50
2.00
1.50
1.00
0.50
0.00
-0.50
-1.00
-1.50
-2.00
-2.50
TG-2 transcript level/GAPDH level (relative fold change)
Untreated HSF
Negative control

Figure 16

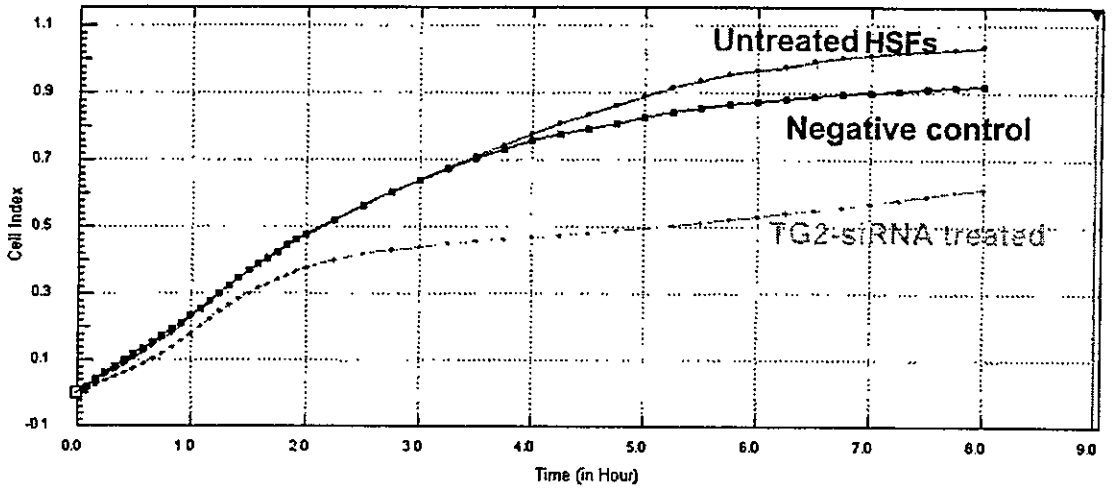


Figure 17A

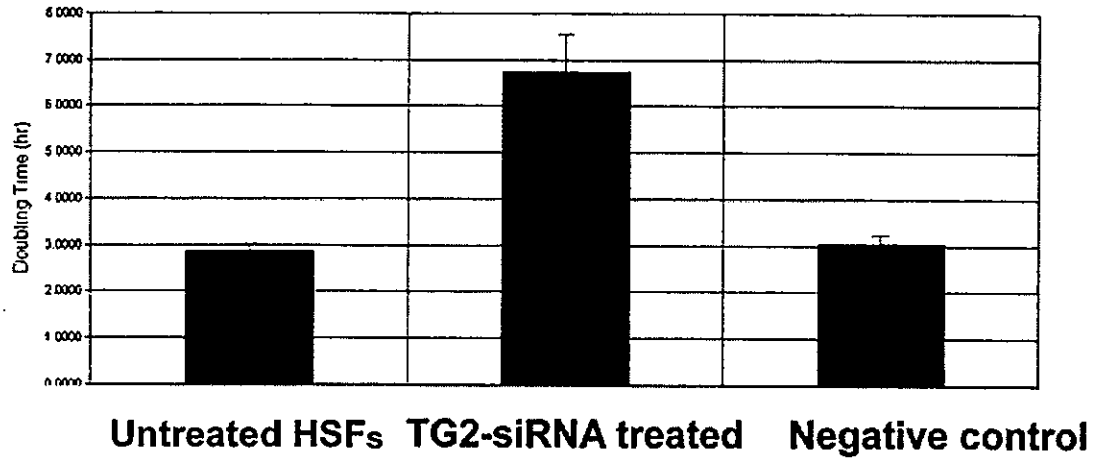


Figure 17B

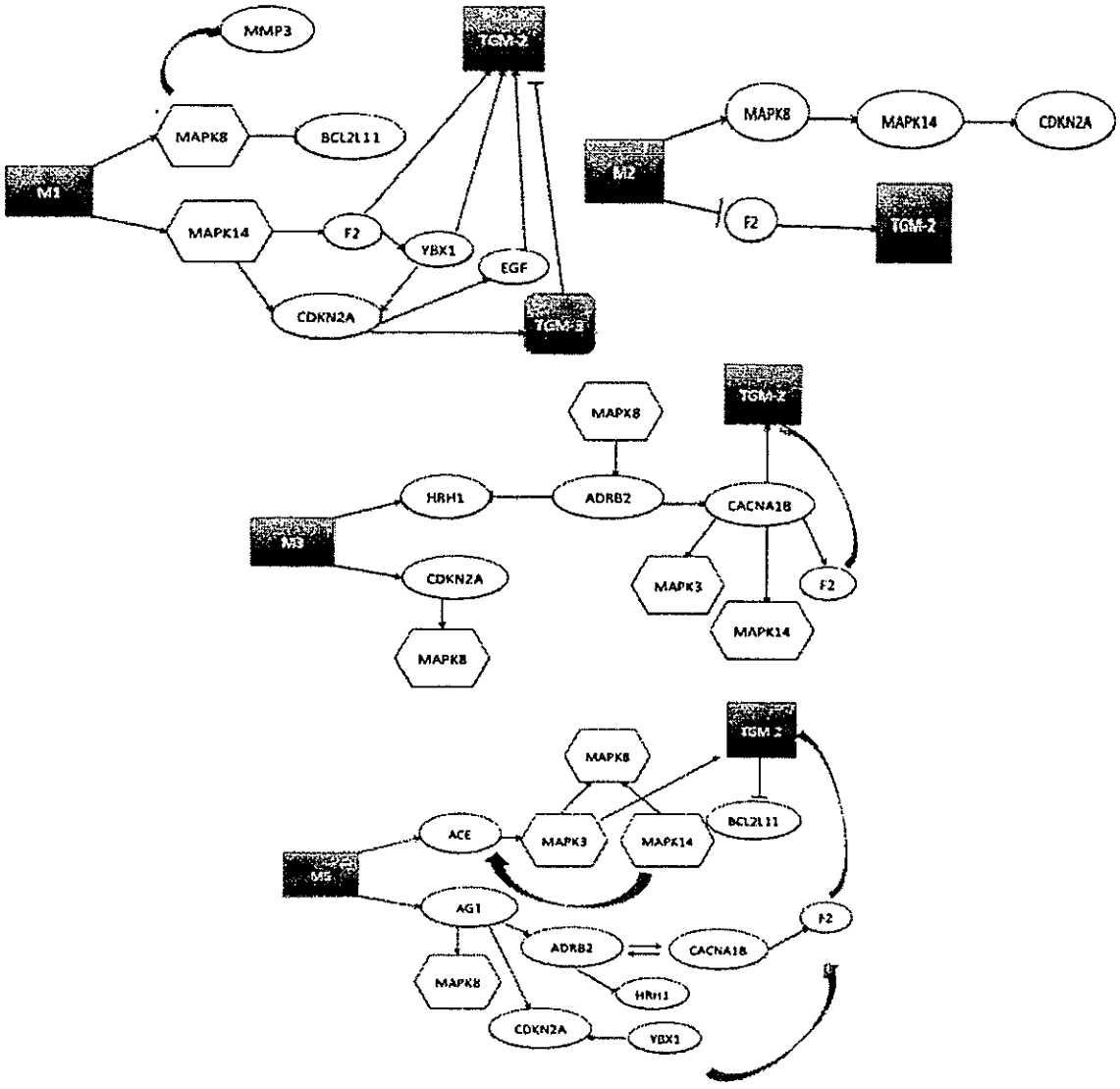

MMP3
TGM-2
MAPK8
BCL2L11
M1
MAPK14
F2
YBX1
EGF
CDKN2A
TGM-3
MAPK8
MAPK14
CDKN2A
M2
F2
TGM-2
MAPK8
TGM-2
HRH1
ADRB2
CACNA1B
M3
CDKN2A
MAPK3
F2
MAPK14
MAPK8
TGM-2
MAPK8
ACE
MAPK3
MAPK14
BCL2L11
M4
AG1
F2
ADRB2
CACNA1B
MAPK8
HRH1
CDKN2A
YBX1

Figure 18