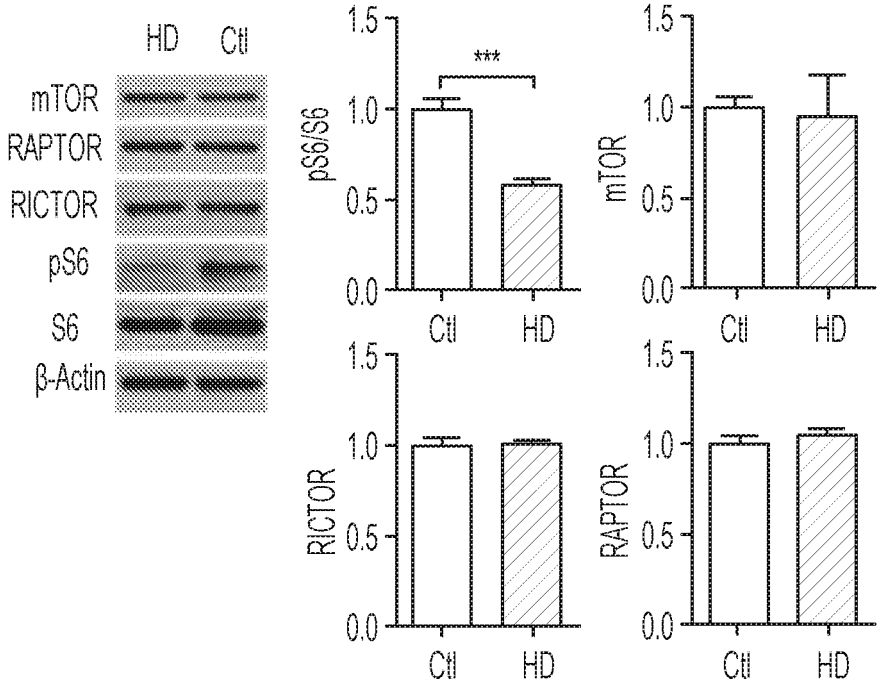

HD
Ctl
mTOR
RAPTOR
RICTOR
pS6
S6
β-Actin
pS6/S6
***
mTOR
RICTOR
RAPTOR
1.5
1.0
0.5
0.0
Ctl
HD

FIG. 1A

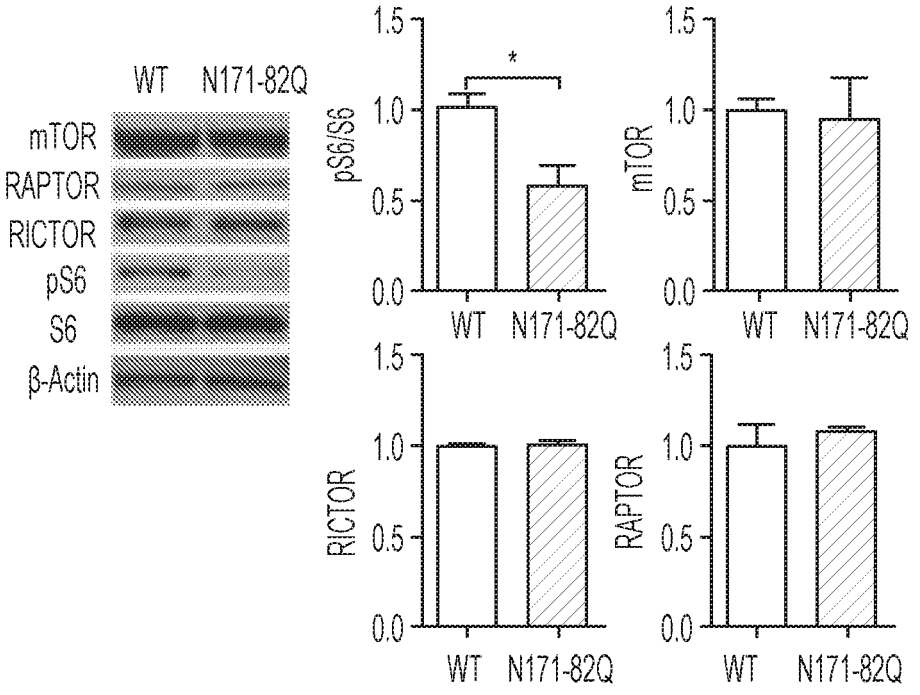

WT
N171-82Q
mTOR
RAPTOR
RICTOR
pS6
S6
β-Actin
pS6/S6
*
mTOR
RICTOR
RAPTOR
1.5
1.0
0.5
0.0

FIG. 1B

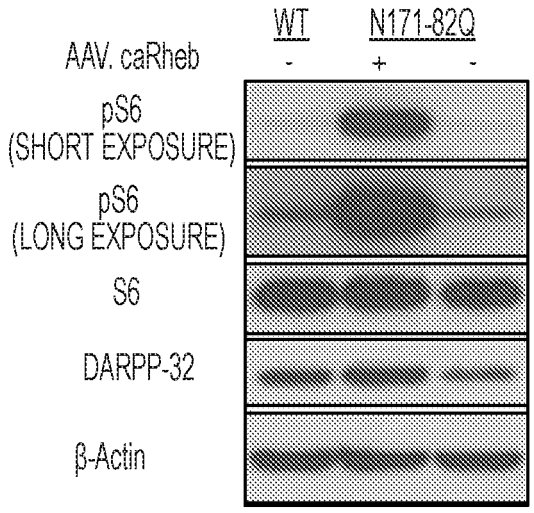


FIG. 2A

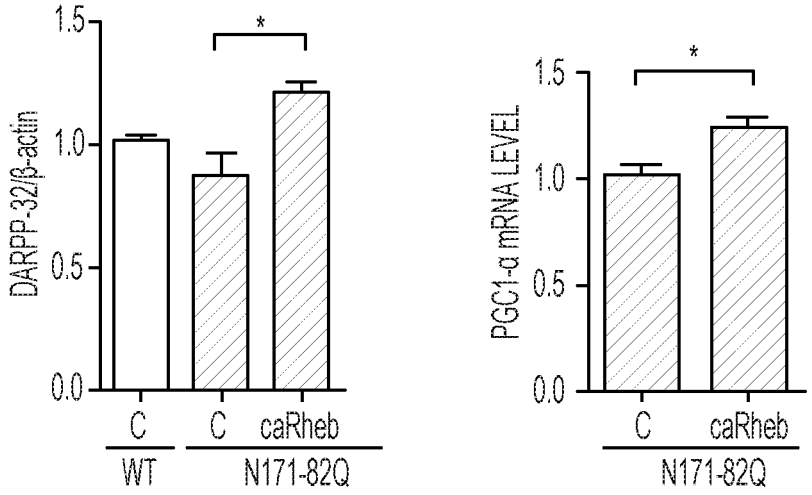


FIG. 2B

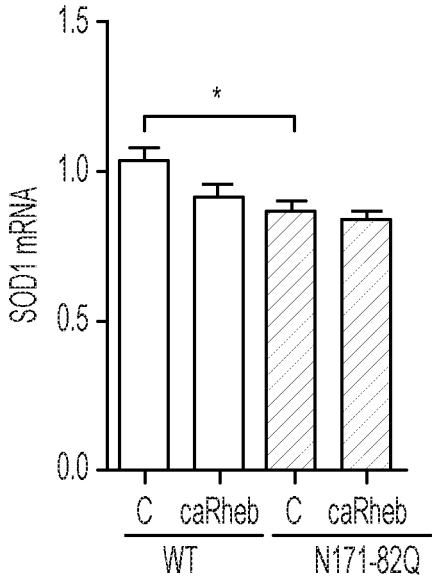


FIG. 2C

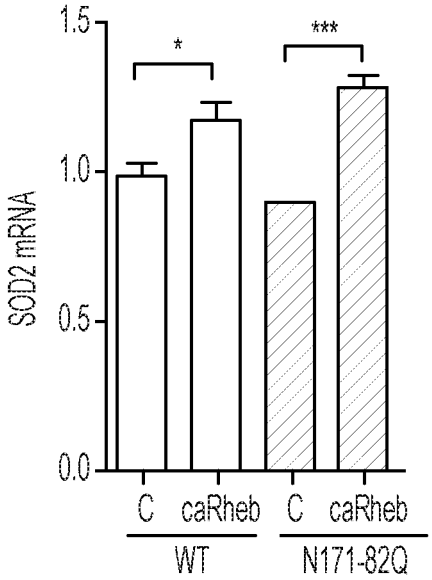


FIG. 2D

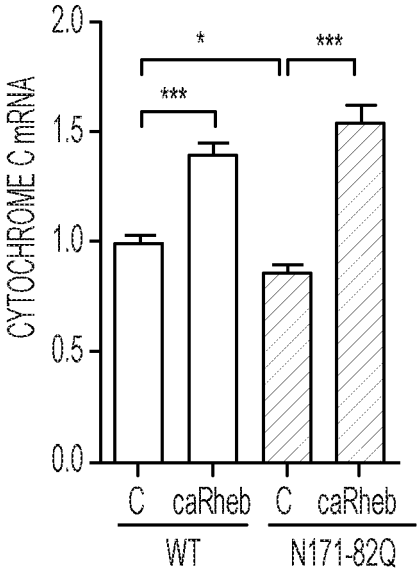


FIG. 2E

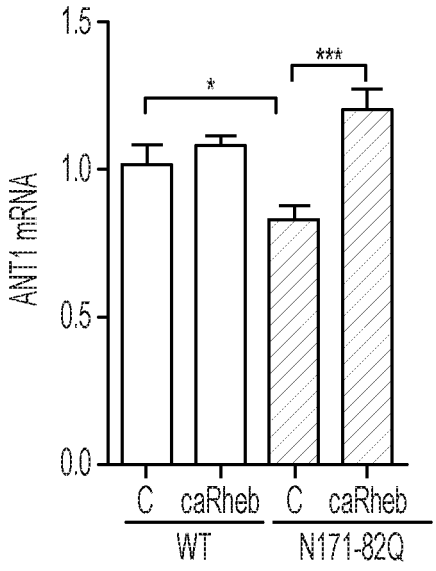


FIG. 2F

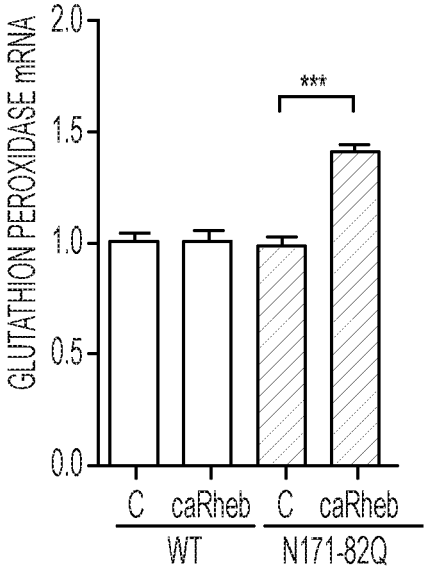


FIG. 2G

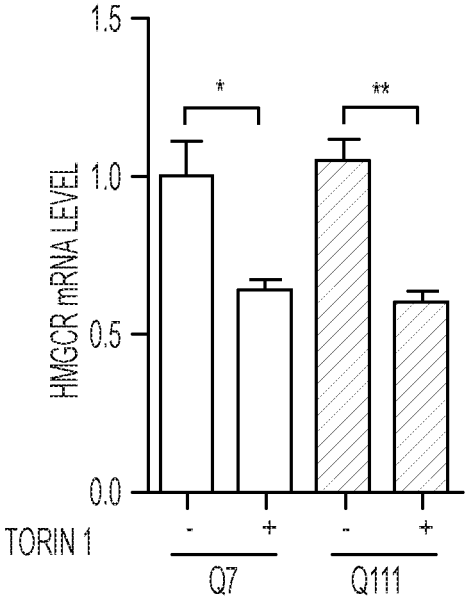


FIG. 3A

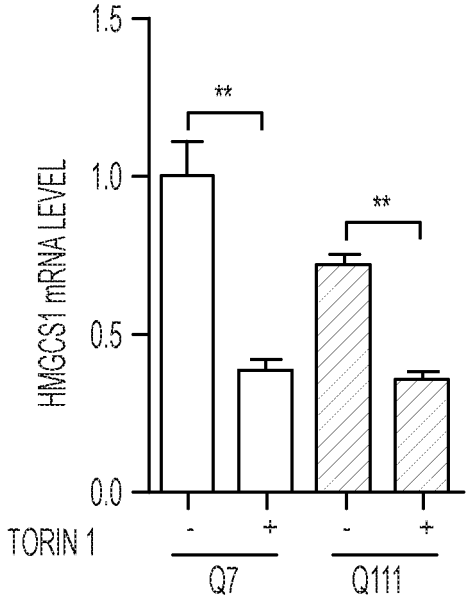


FIG. 3B

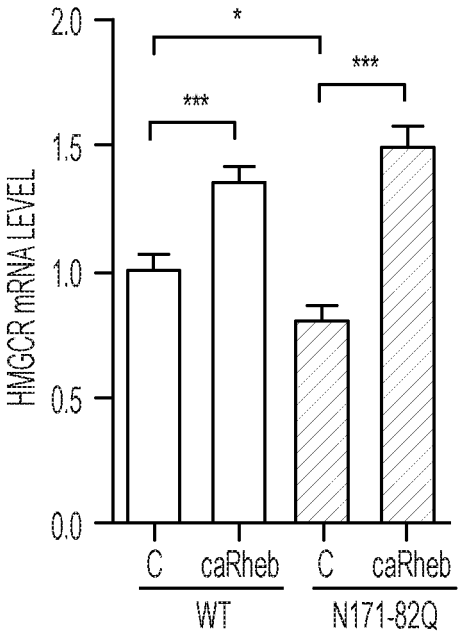


FIG. 3C

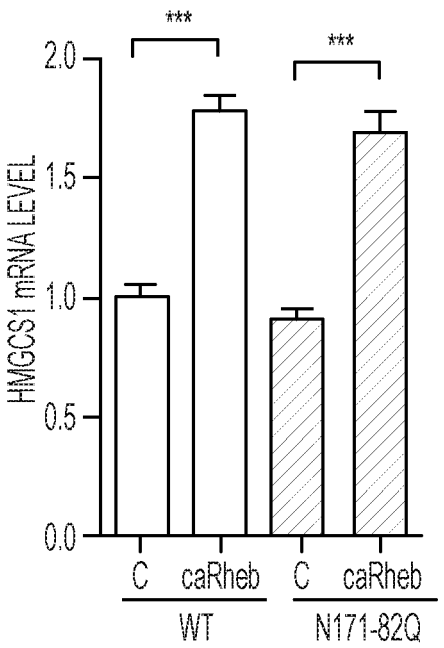


FIG. 3D

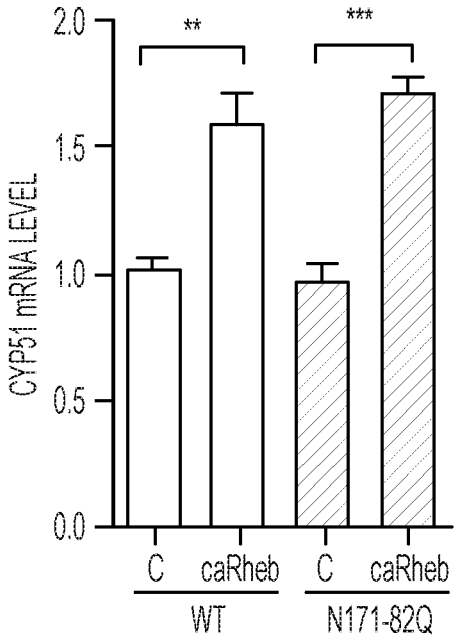


FIG. 3E

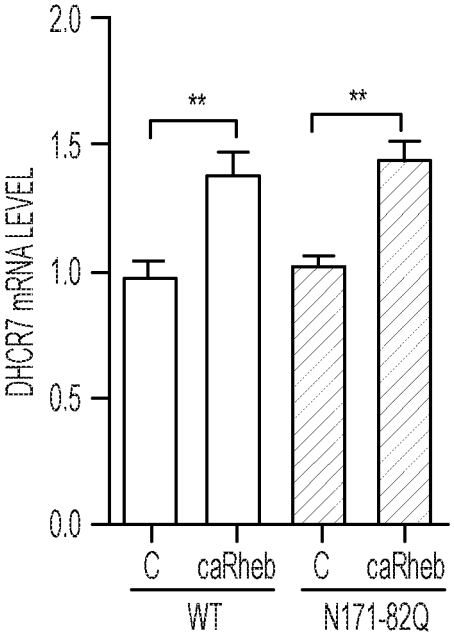


FIG. 3F

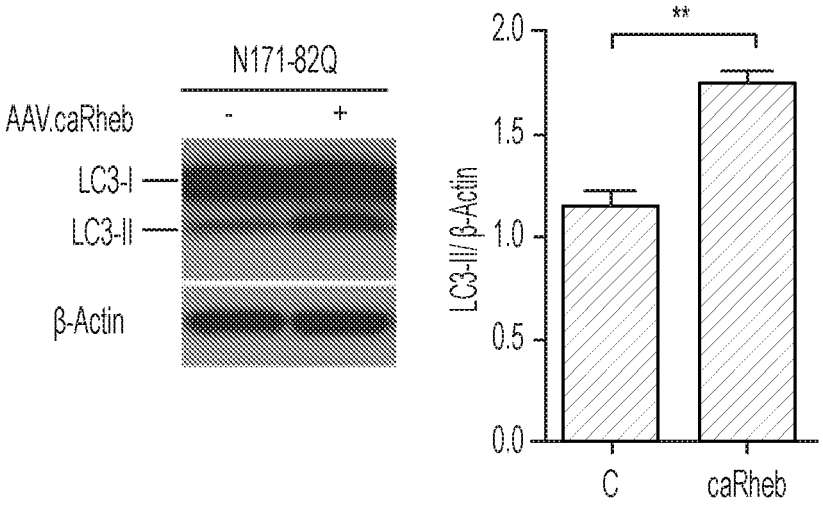

N171-82Q
AAV.caRheb
-
+
LC3-I
LC3-II
β-Actin
LC3-II/ β-Actin
2.0
1.5
1.0
0.5
0.0
**
C
caRheb

FIG. 4A

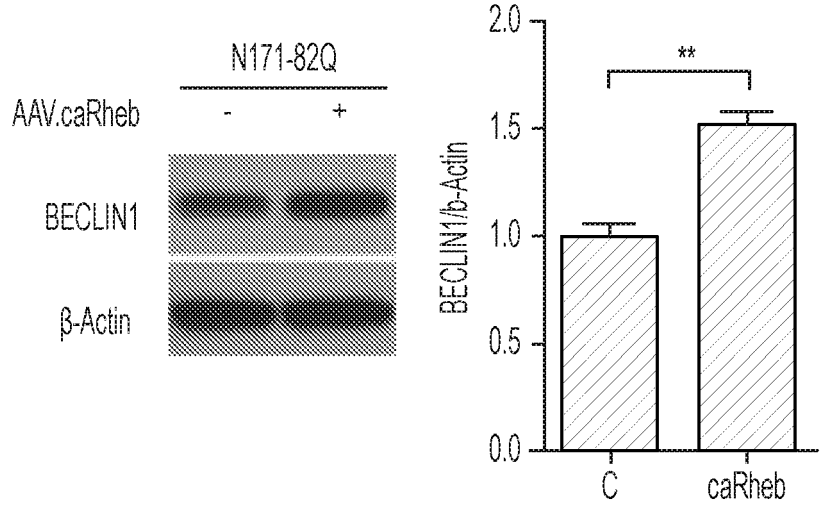

N171-82Q
AAV.caRheb
-
+
BECLIN1
β-Actin
BECLIN1/b-Actin
2.0
1.5
1.0
0.5
0.0
**
C
caRheb

FIG. 4B

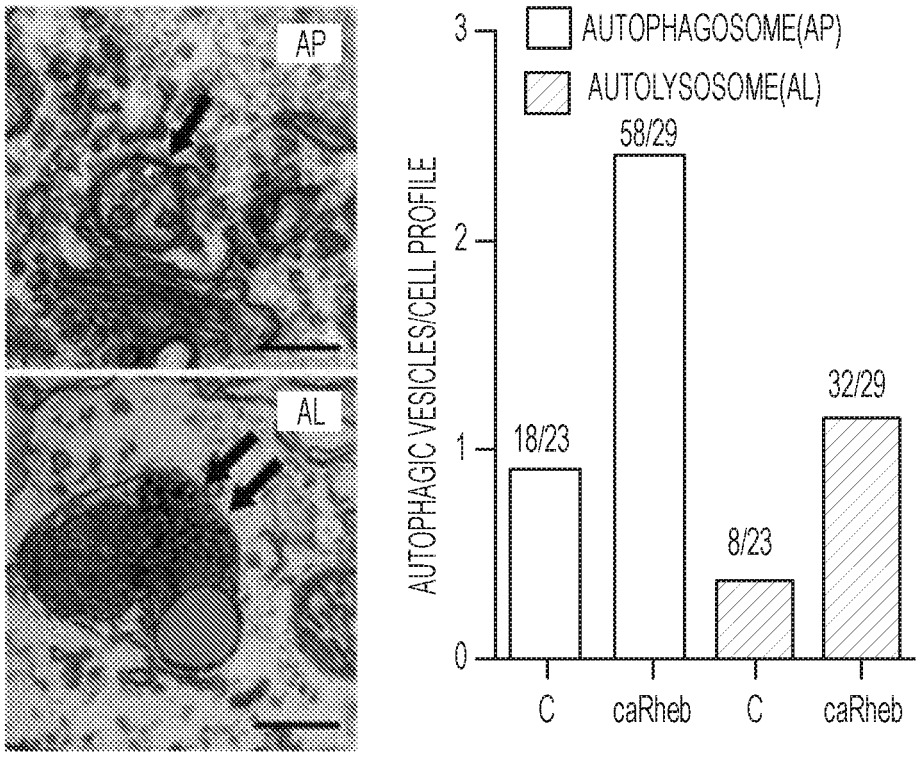

AP
AL
AUTOPHAGOSOME(AP)
AUTOLYSOSOME(AL)
AUTOPHAGIC VESICLES/CELL PROFILE
3
2
1
0
18/23
58/29
8/23
32/29
C
caRheb
C
caRheb

FIG. 4C

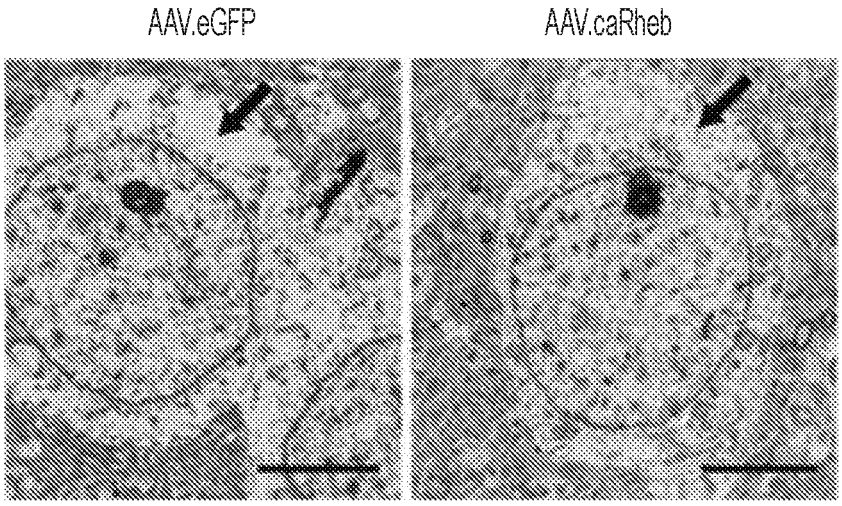

AAV.eGFP
AAV.caRheb

FIG. 4D

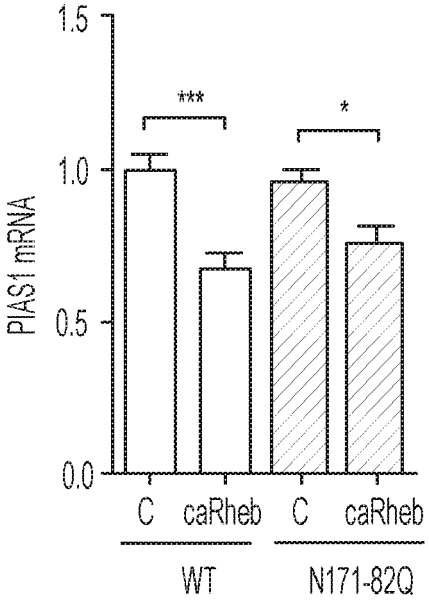


FIG. 5A

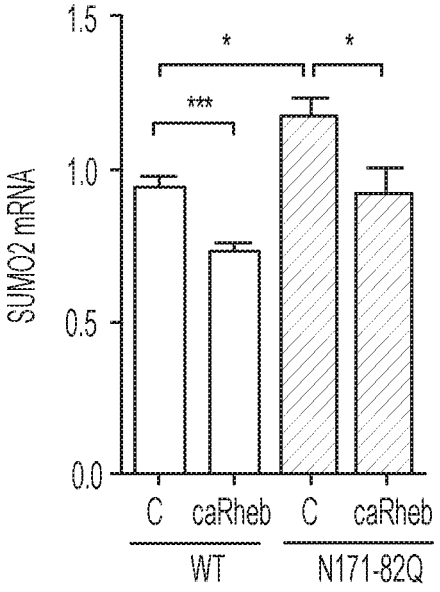


FIG. 5B

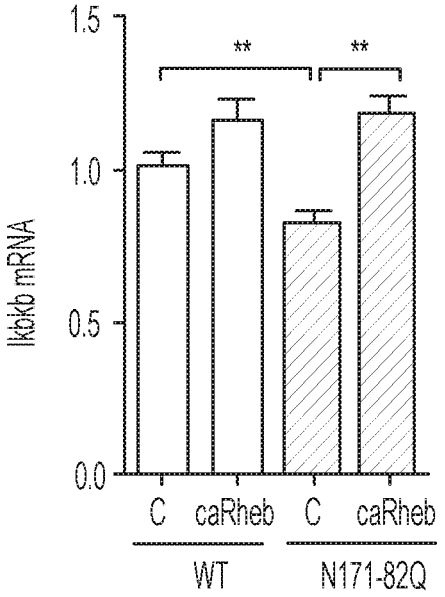


FIG. 5C

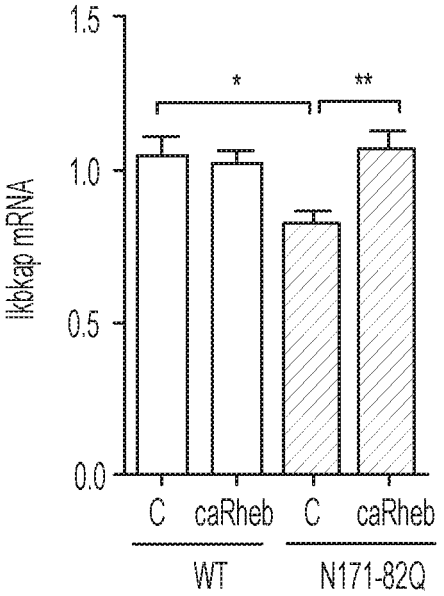


FIG. 5D

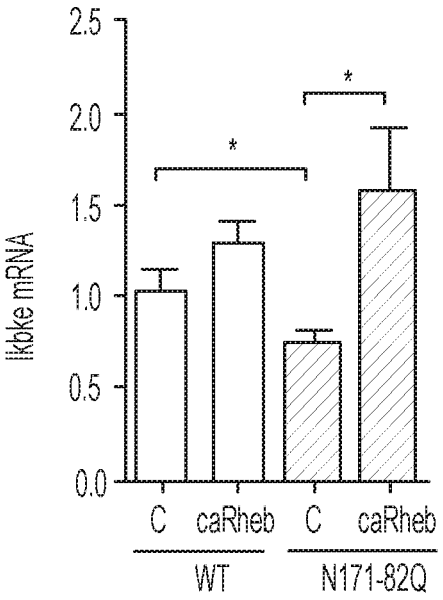


FIG. 5E

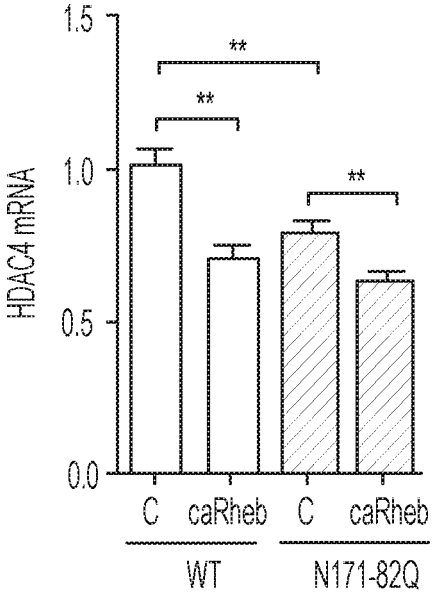


FIG. 5F

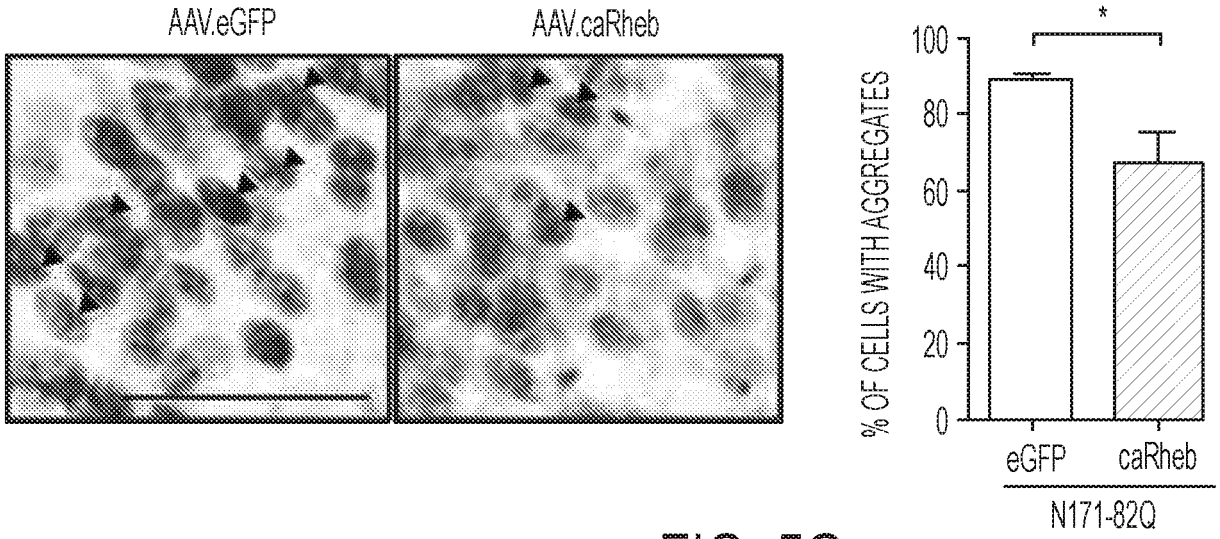


FIG. 5G

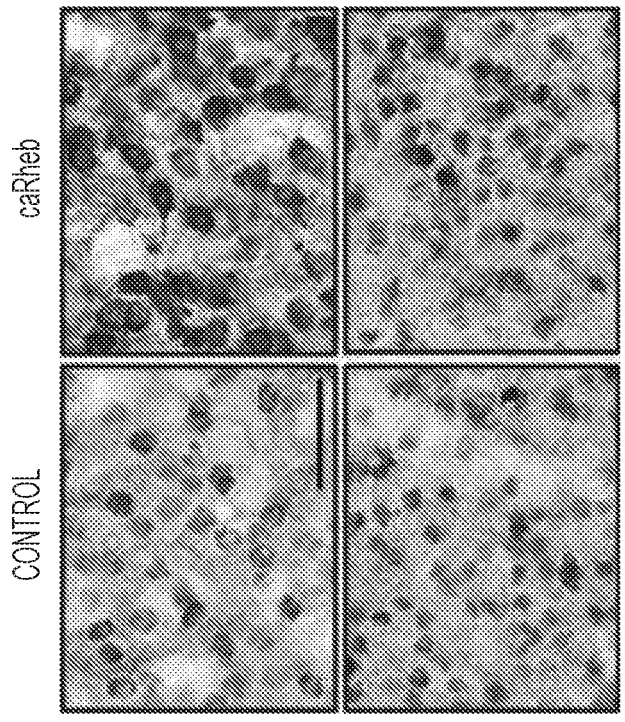


FIG. 6A

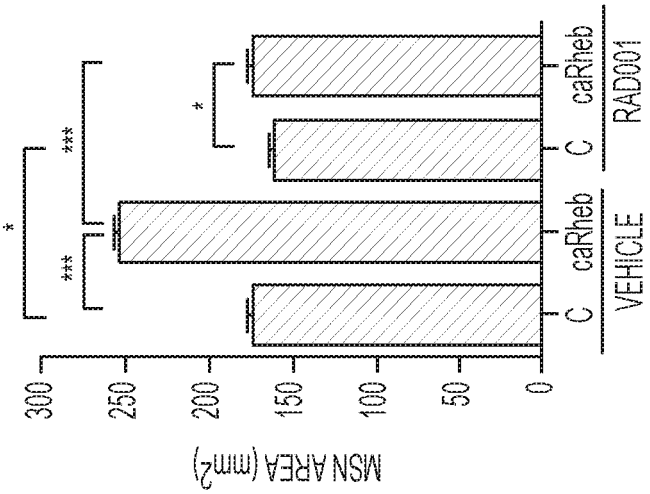


FIG. 6B

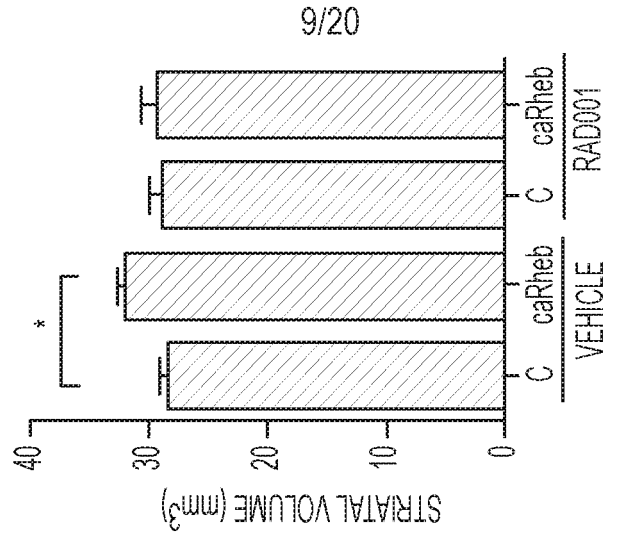


FIG. 6C

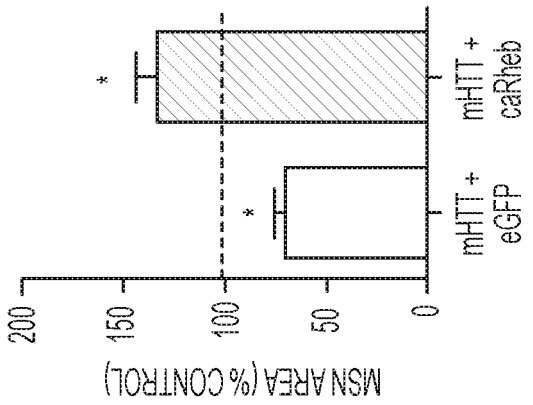

MSN AREA (% CONTROL)
200
150
100
50
0
*
*
mHTT + eGFP
mHTT + caRheb

FIG. 6E

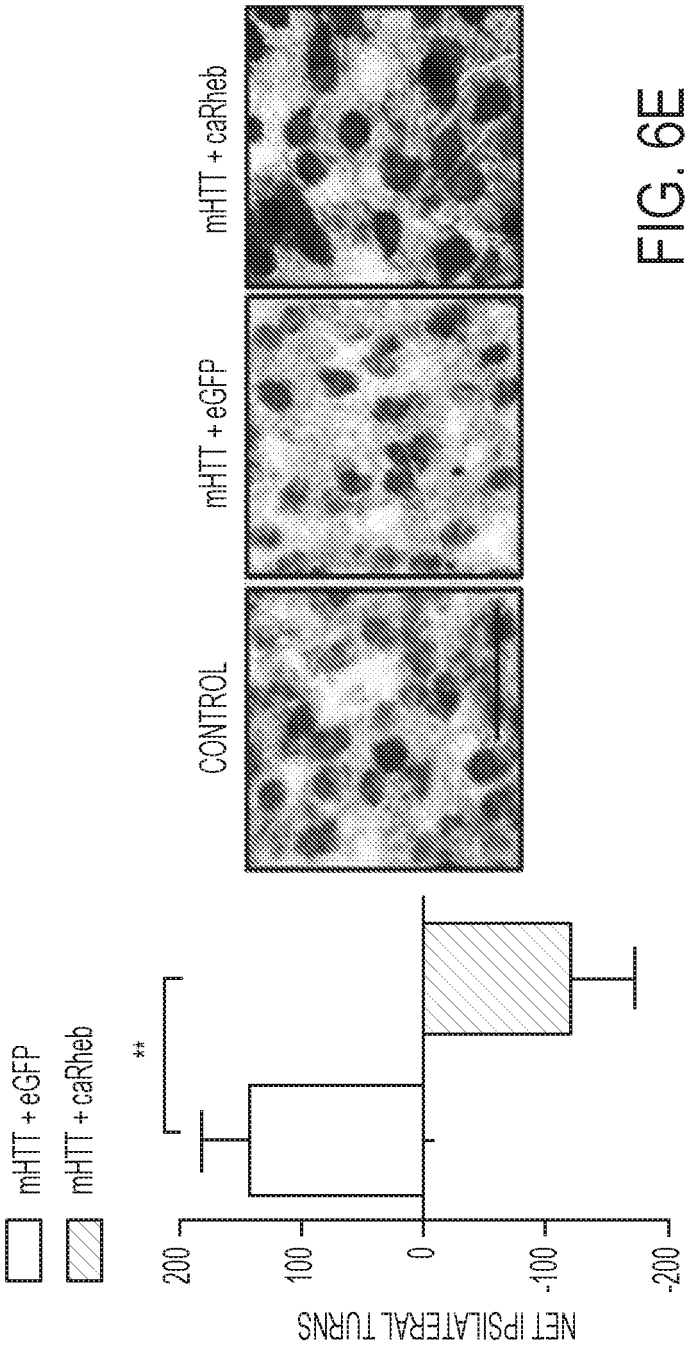

CONTROL
mHTT + eGFP
mHTT + caRheb
mHTT + eGFP
mHTT + caRheb
**
NET IPSILATERAL TURNS
200
100
0
-100
-200

FIG. 6D

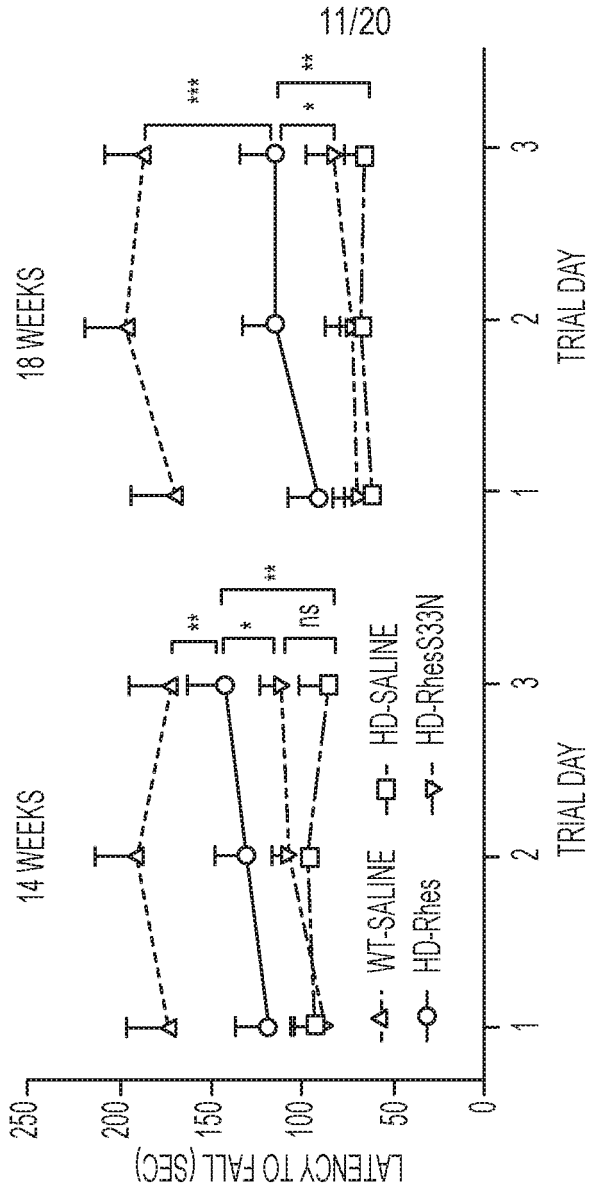

18 WEEKS
14 WEEKS
LATENCY TO FALL (SEC)
250
200
150
100
50
0
1
2
3
TRIAL DAY
WT-SALINE
HD-Rhes
HD-SALINE
HD-RhesS33N
***
**
*
ns

FIG. 7B

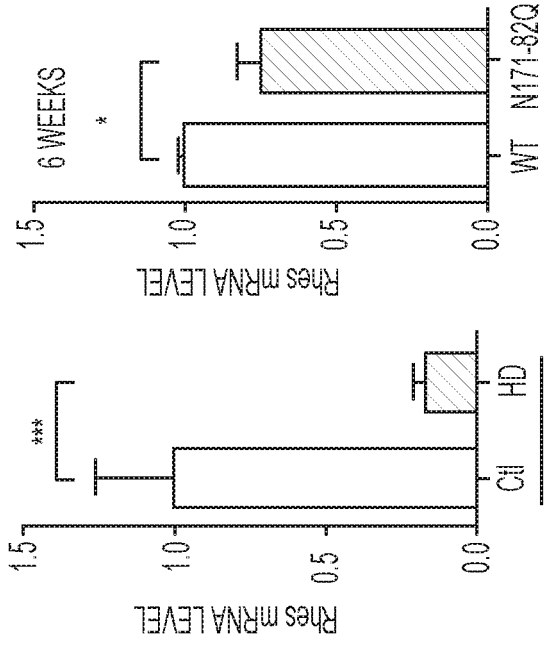

6 WEEKS
Rhes mRNA LEVEL
1.5
1.0
0.5
0.0
WT
N171-82Q
*
HUMAN
Ctl
HD
***

FIG. 7A

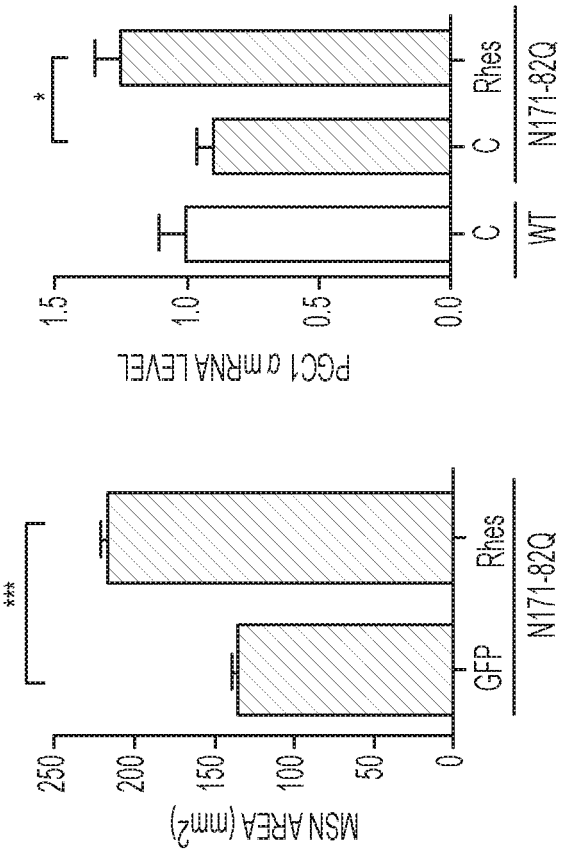

PGC1α mRNA LEVEL
1.5
1.0
0.5
0.0
*
C
C
Rhes
WT
N171-82Q
MSN AREA (mm²)
250
200
150
100
50
0
***
GFP
Rhes
N171-82Q

FIG. 7D

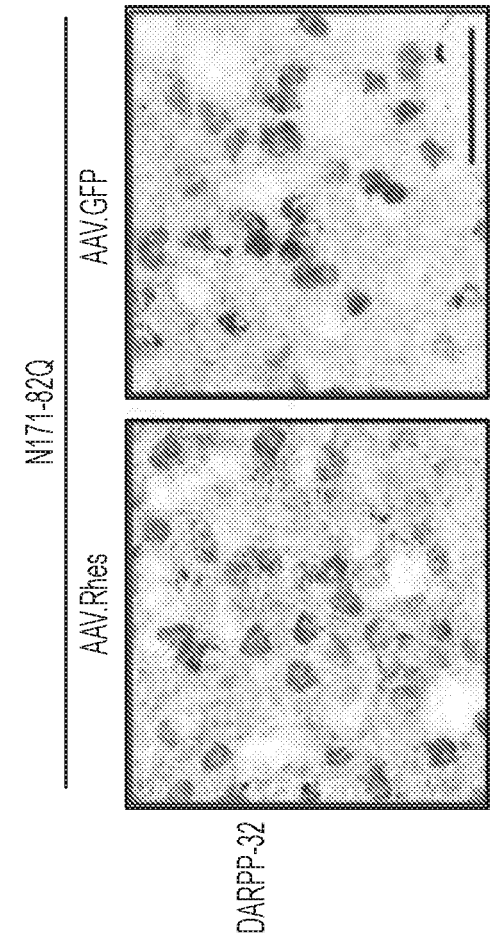

N171-82Q
AAV.Rhes
AAV.GFP
DARPP-32

FIG. 7C

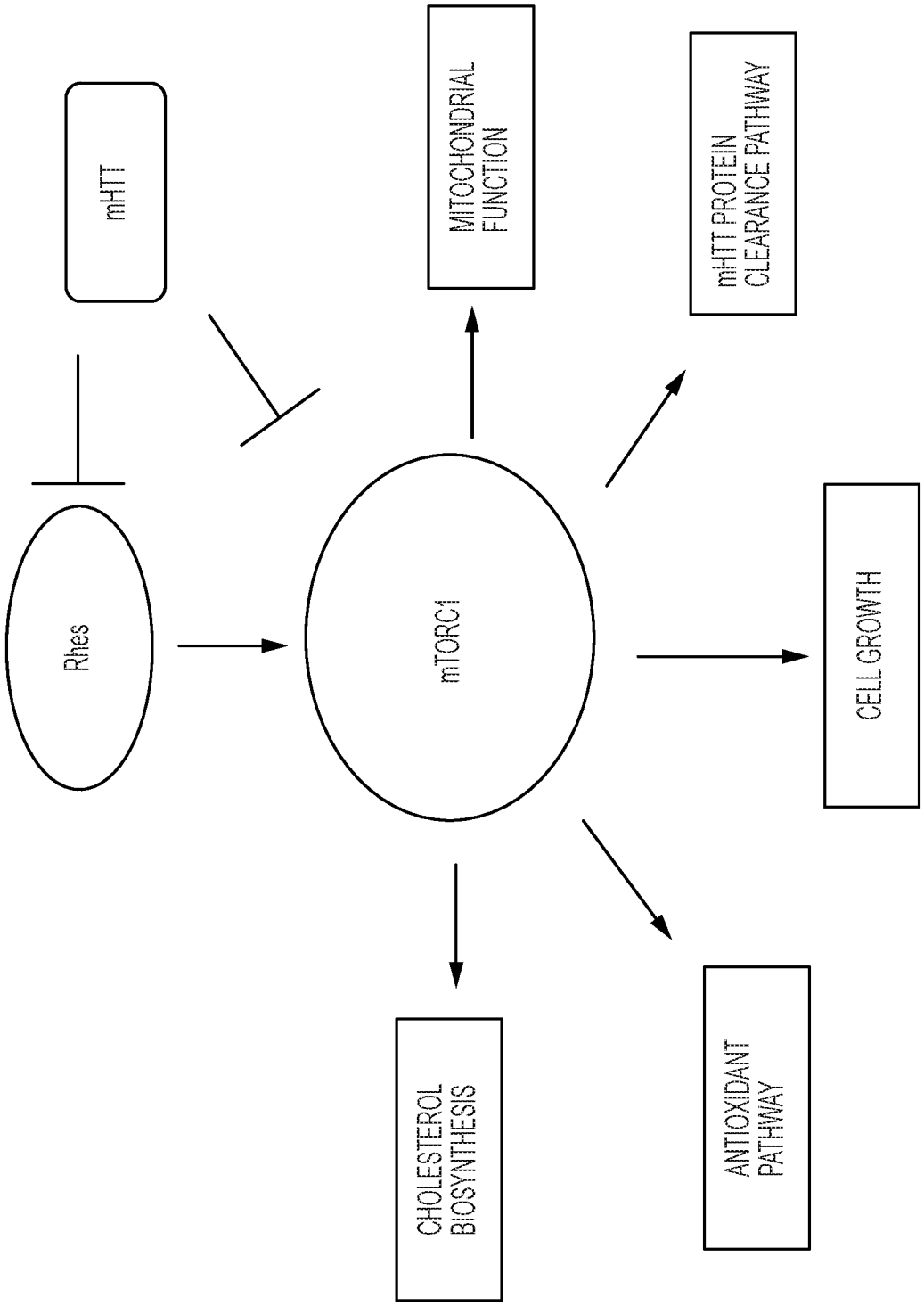

mHTT
MITOCHONDRIAL FUNCTION
mHTT PROTEIN CLEARANCE PATHWAY
Rhes
mTORC1
CELL GROWTH
CHOLESTEROL BIOSYNTHESIS
ANTIOXIDANT PATHWAY

FIG. 8

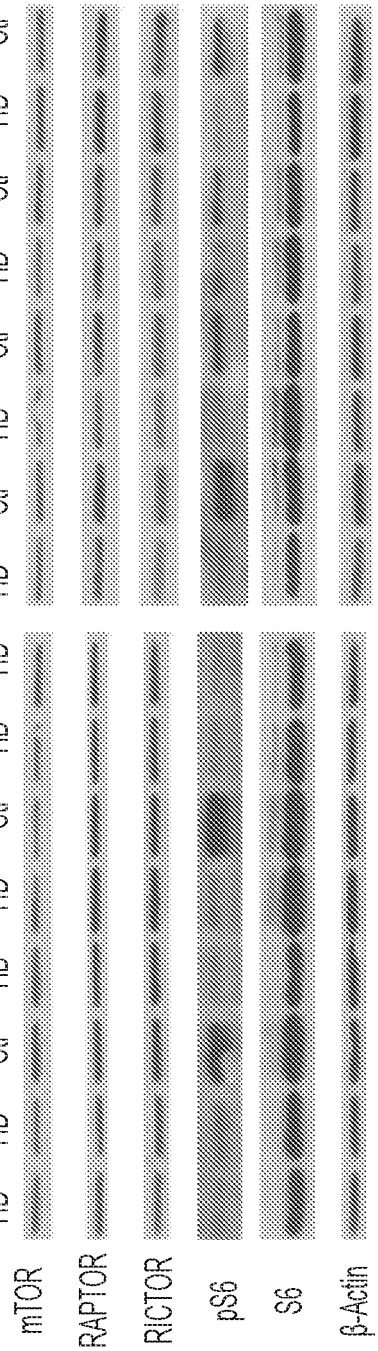


FIG. S1A

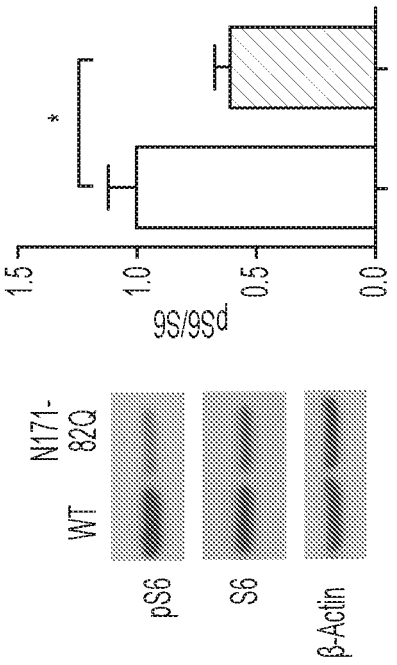


FIG. S1B

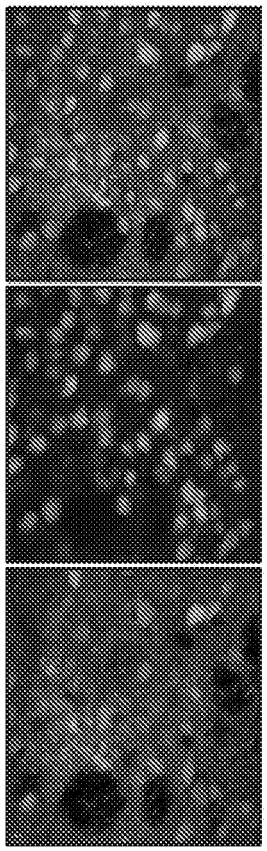


FIG. S2A

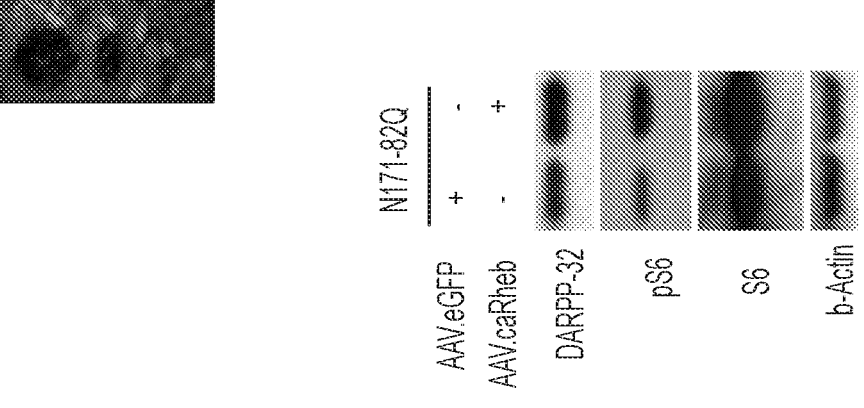


FIG. S2B

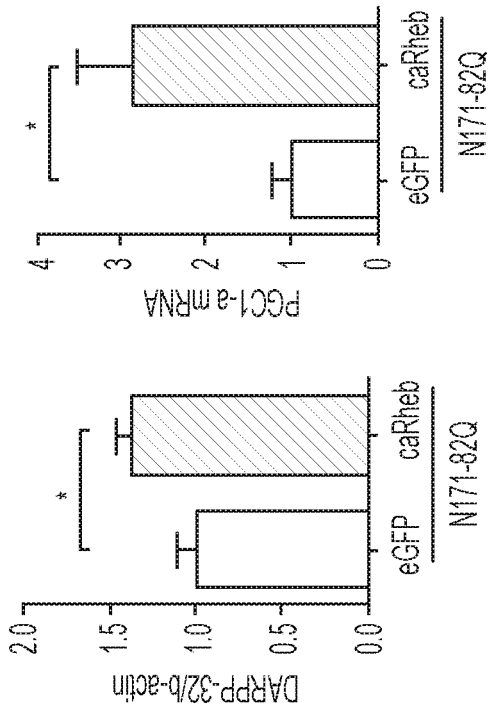


FIG. S2C

FIG. S2D

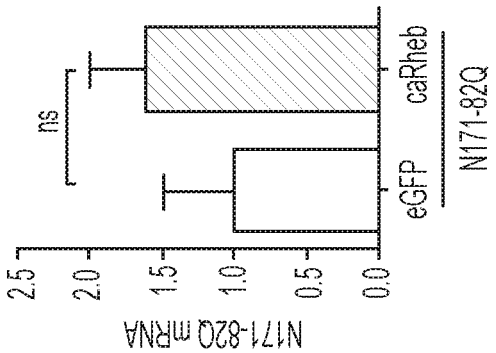


FIG. S2H

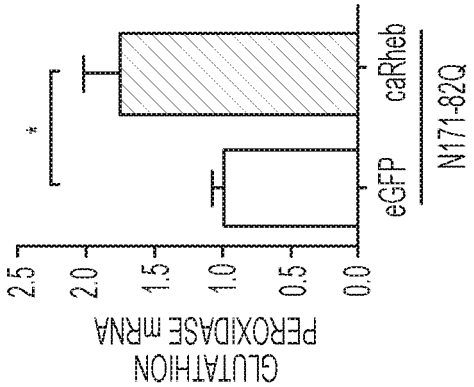


FIG. S2G

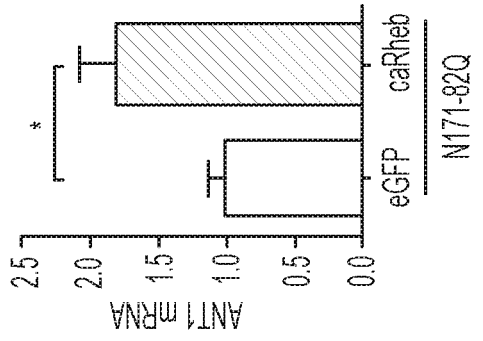


FIG. S2F

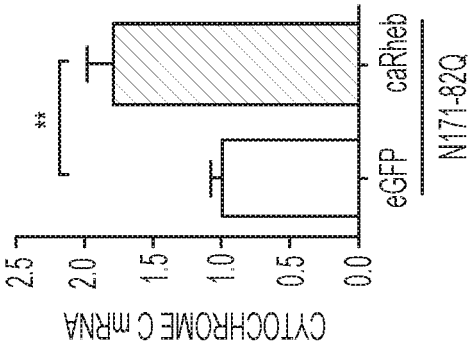


FIG. S2E

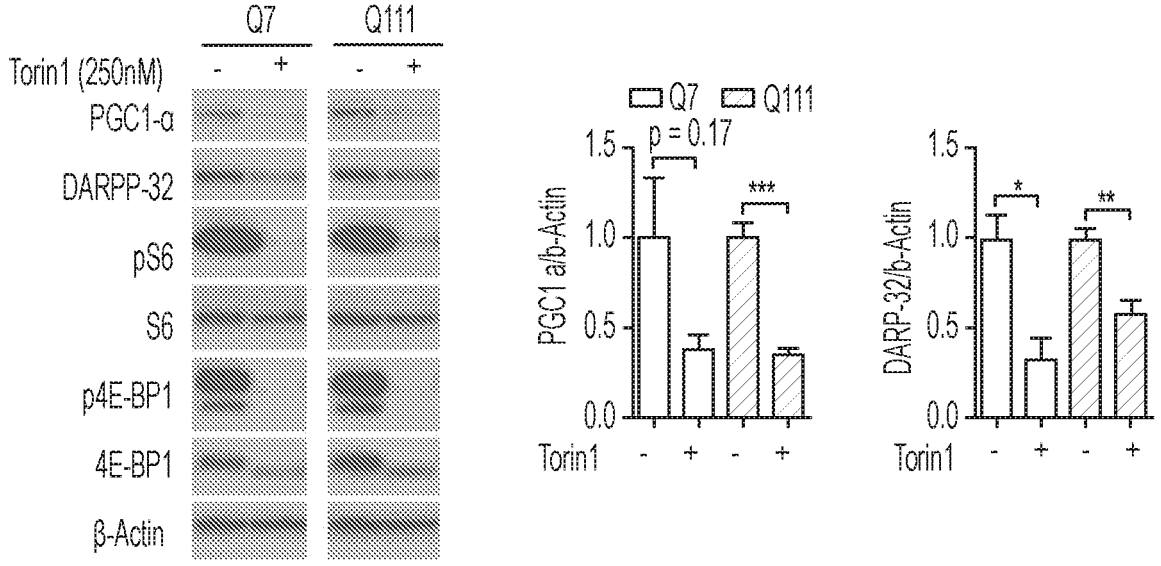


FIG. S3A

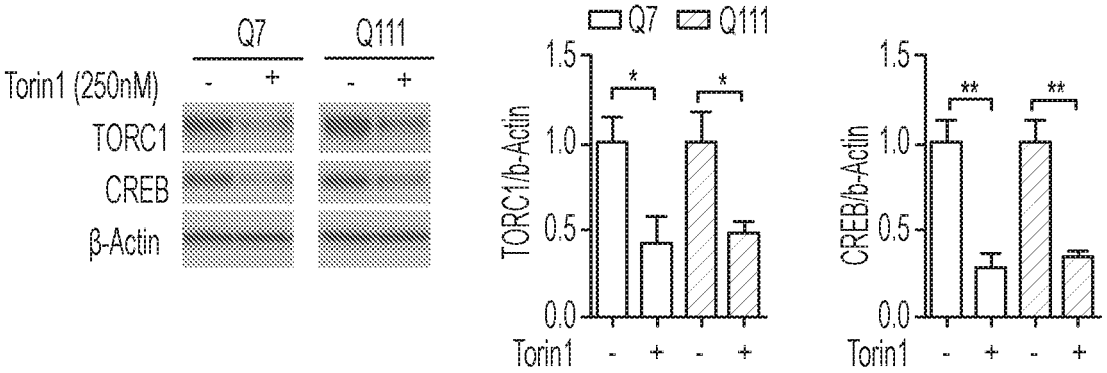


FIG. S3B

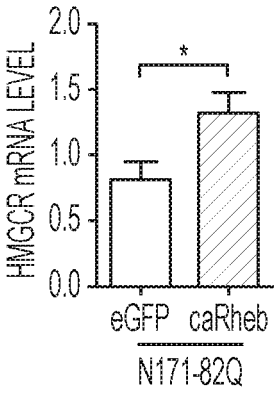


FIG. S3C

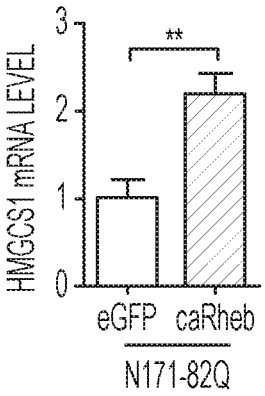


FIG. S3D

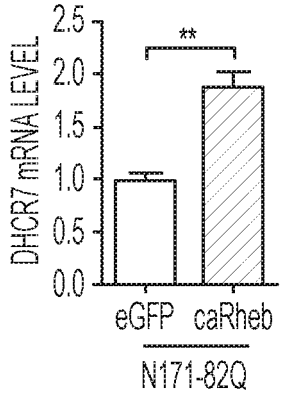


FIG. S3E

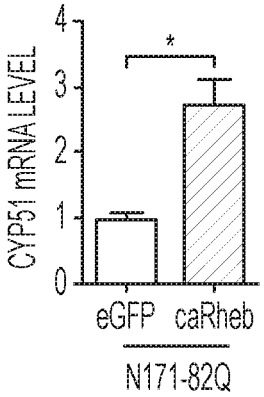


FIG. S3F

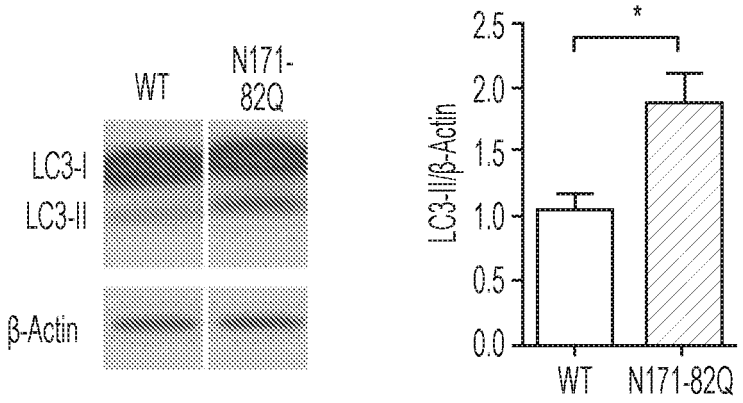


FIG. S4

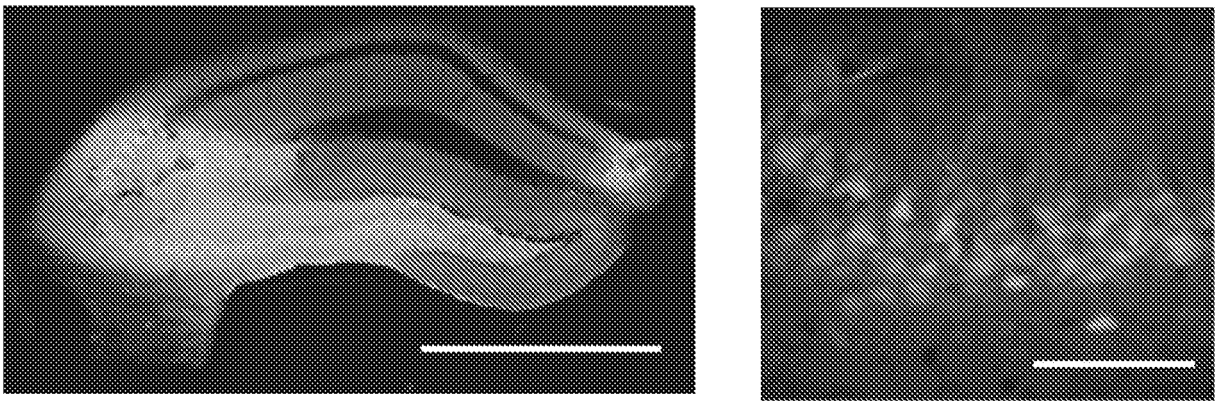


FIG. S5

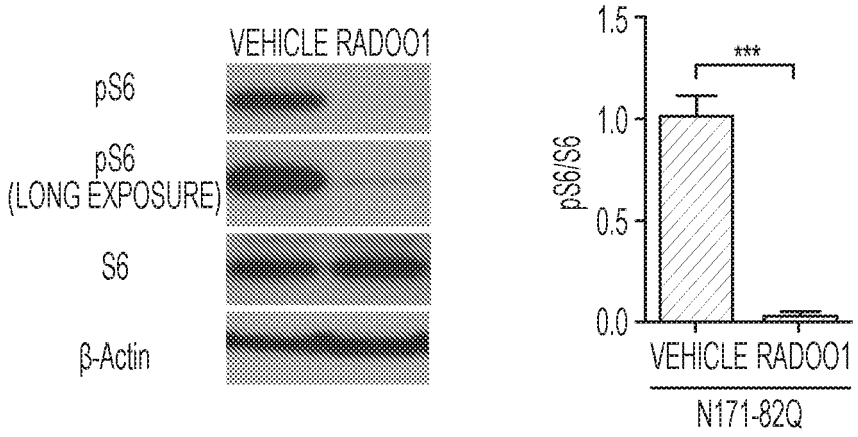


FIG. S6A

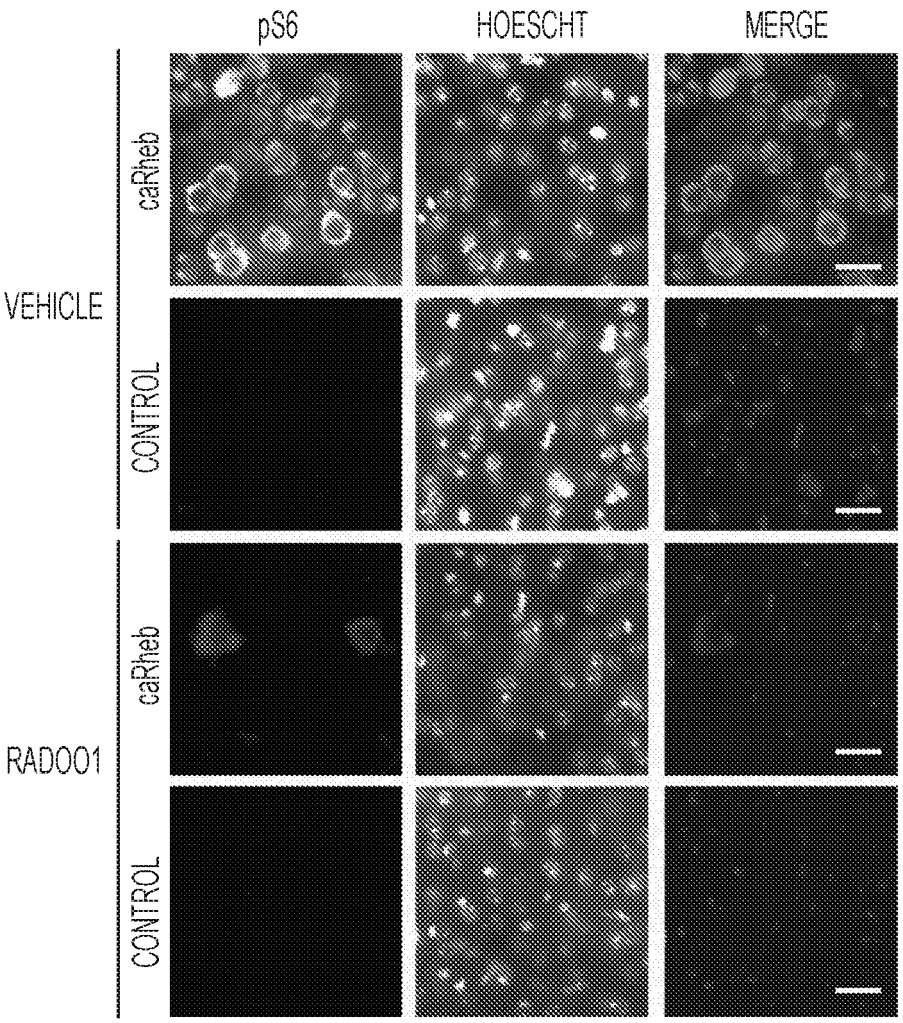


FIG. S6B

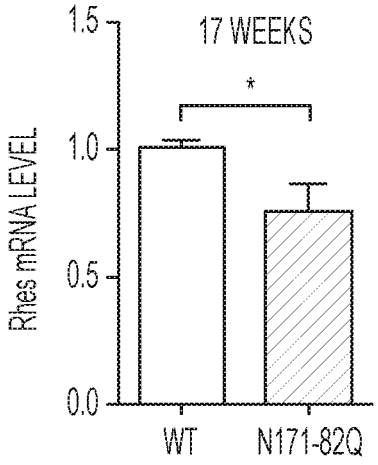


FIG. S7A

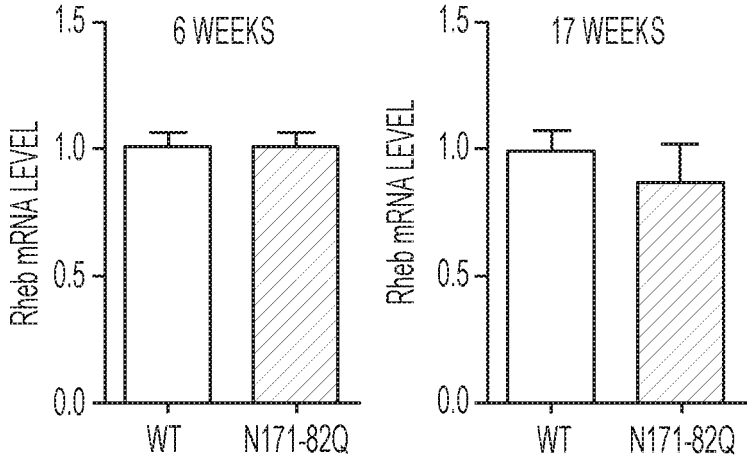


FIG. S7B

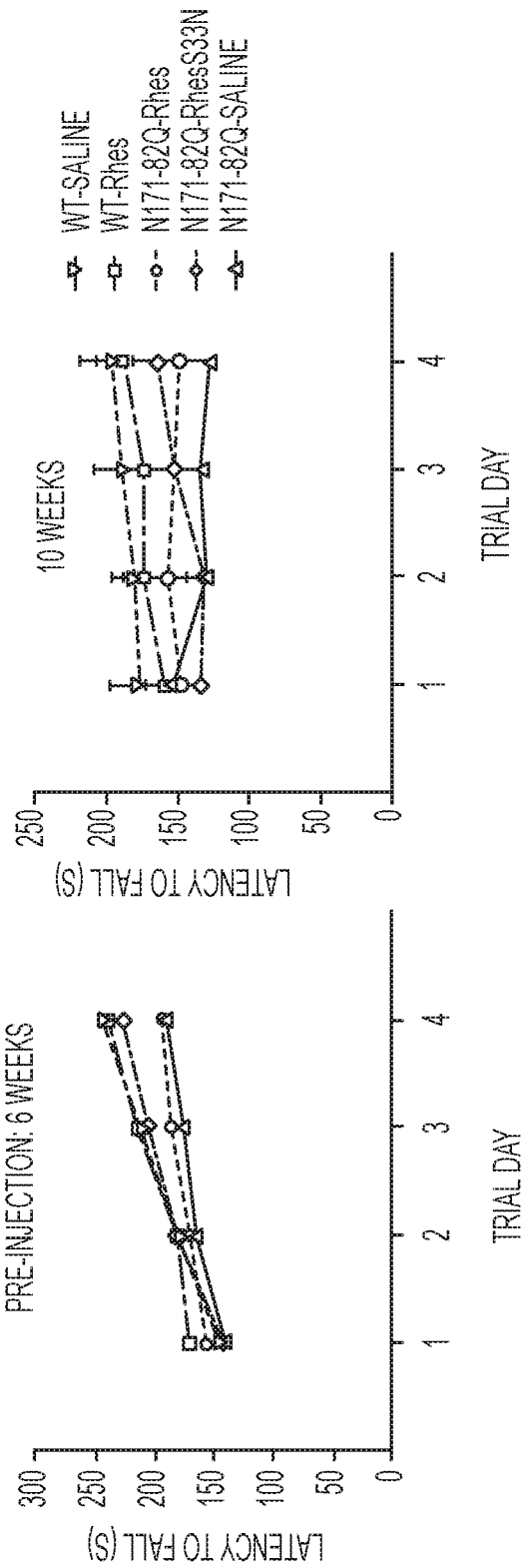


FIG. S7C

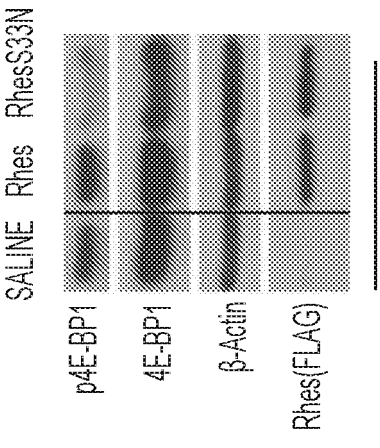


FIG. S8