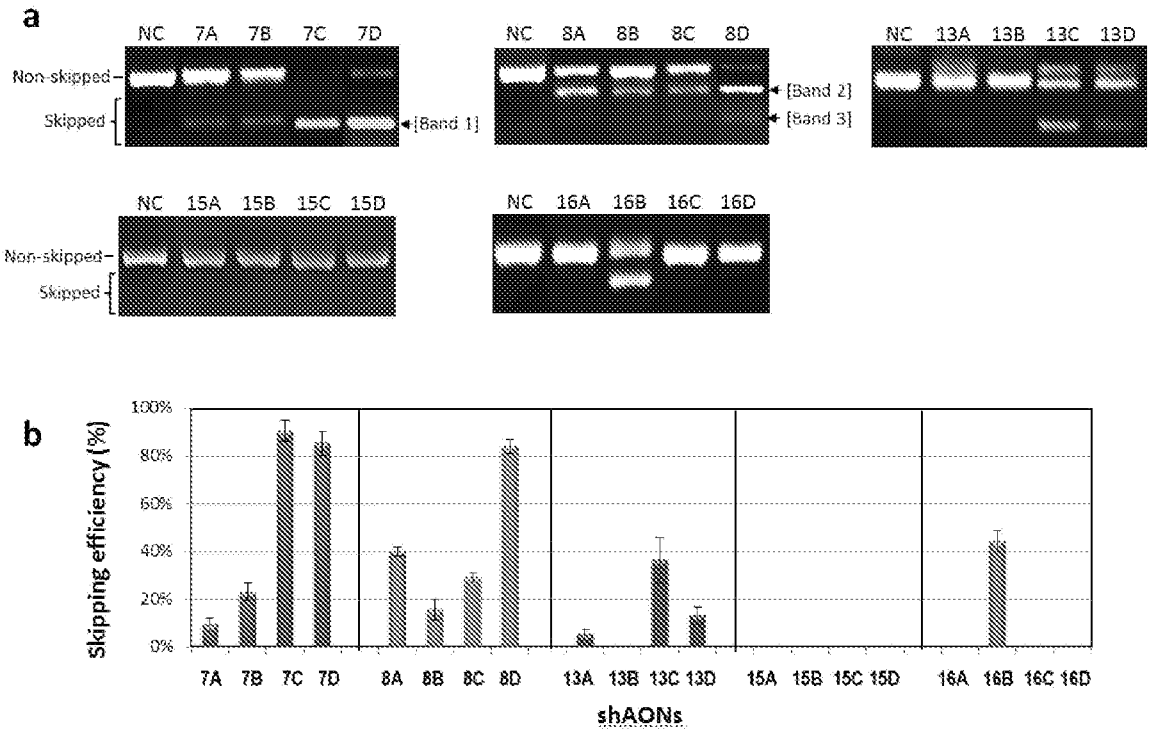

a
NC 7A 7B 7C 7D
Non-skipped
Skipped
[Band 1]
NC 8A 8B 8C 8D
[Band 2]
[Band 3]
NC 13A 13B 13C 13D
NC 15A 15B 15C 15D
Non-skipped
Skipped
NC 16A 16B 16C 16D
b
Skipping efficiency (%)
100%
80%
60%
40%
20%
0%
7A 7B 7C 7D 8A 8B 8C 8D 13A 13B 13C 13D 15A 15B 15C 15D 16A 16B 16C 16D
shAONs
c
[Band 1]
Exon 8
Exon 8
[Band 2]
Exon 7
Exon 9
[Band 3]
Exon 6
Exon 9
d
GLDC 7D
GLDC 7C
GLDC 8D
NC
Conditions
With CHX
No CHX
Skipping efficiency (%)
64% 45% 85% 66% 68% 30% 4% 0%
Non-skipped
Skipped

Figure 1

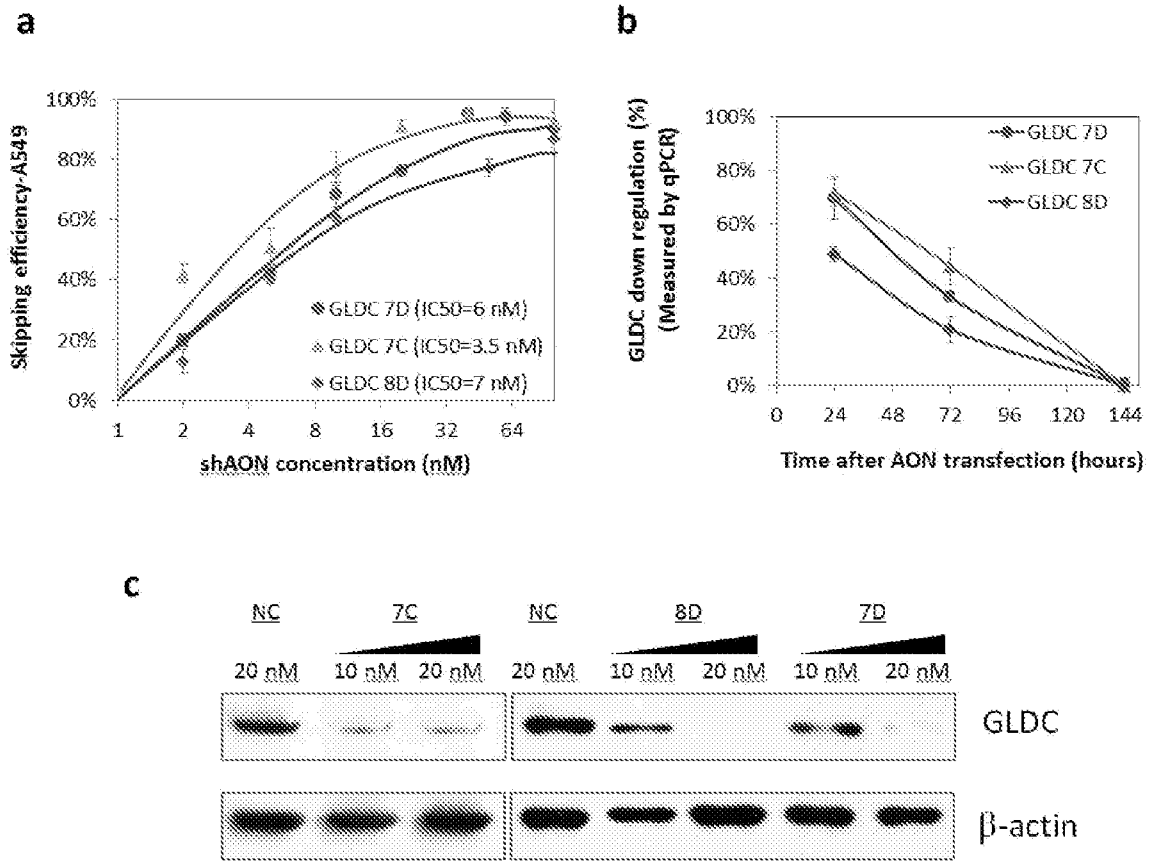

a
Skipping efficiency-A549
100%
80%
60%
40%
20%
0%
1
2
4
8
16
32
64
shAON concentration (nM)
GLDC 7D (IC50=6 nM)
GLDC 7C (IC50=3.5 nM)
GLDC 8D (IC50=7 nM)
b
GLDC down regulation (%)
(Measured by qPCR)
100%
80%
60%
40%
20%
0%
0
24
48
72
96
120
144
Time after AON transfection (hours)
GLDC 7D
GLDC 7C
GLDC 8D
c
NC
7C
NC
8D
7D
20 nM
10 nM
20 nM
20 nM
10 nM
20 nM
10 nM
20 nM
GLDC
β-actin

Figure 2

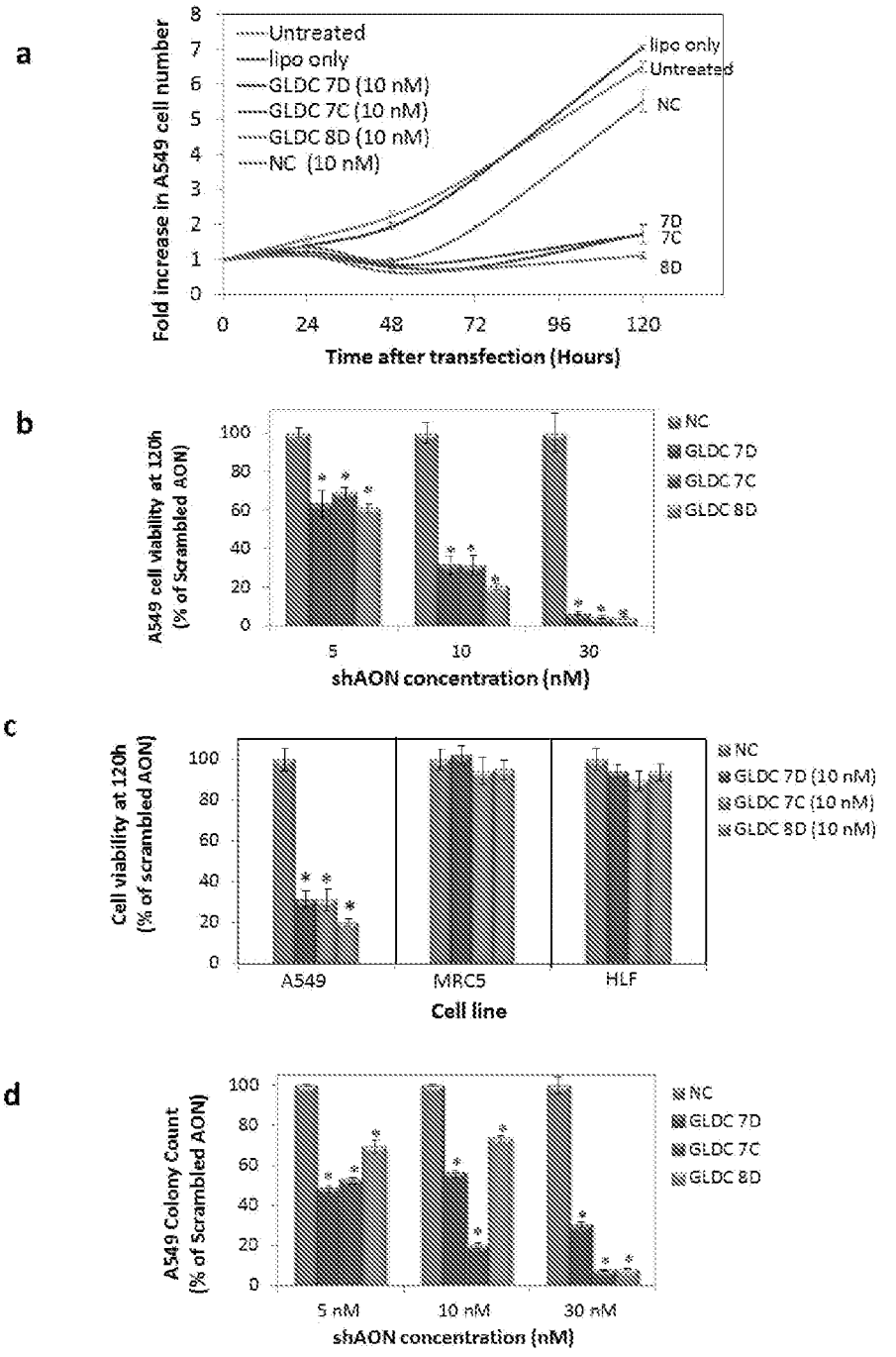

a
Fold increase in A549 cell number
Time after transfection (Hours)
Untreated
lipo only
GLDC 7D (10 nM)
GLDC 7C (10 nM)
GLDC 8D (10 nM)
NC (10 nM)
lipo only
Untreated
NC
7D
7C
8D
b
A549 cell viability at 120h (% of Scrambled AON)
shAON concentration (nM)
NC
GLDC 7D
GLDC 7C
GLDC 8D
c
Cell viability at 120h (% of scrambled AON)
A549
MRC5
HLF
Cell line
NC
GLDC 7D (10 nM)
GLDC 7C (10 nM)
GLDC 8D (10 nM)
d
A549 Colony Count (% of Scrambled AON)
5 nM
10 nM
30 nM
shAON concentration (nM)
NC
GLDC 7D
GLDC 7C
GLDC 8D

Figure 3

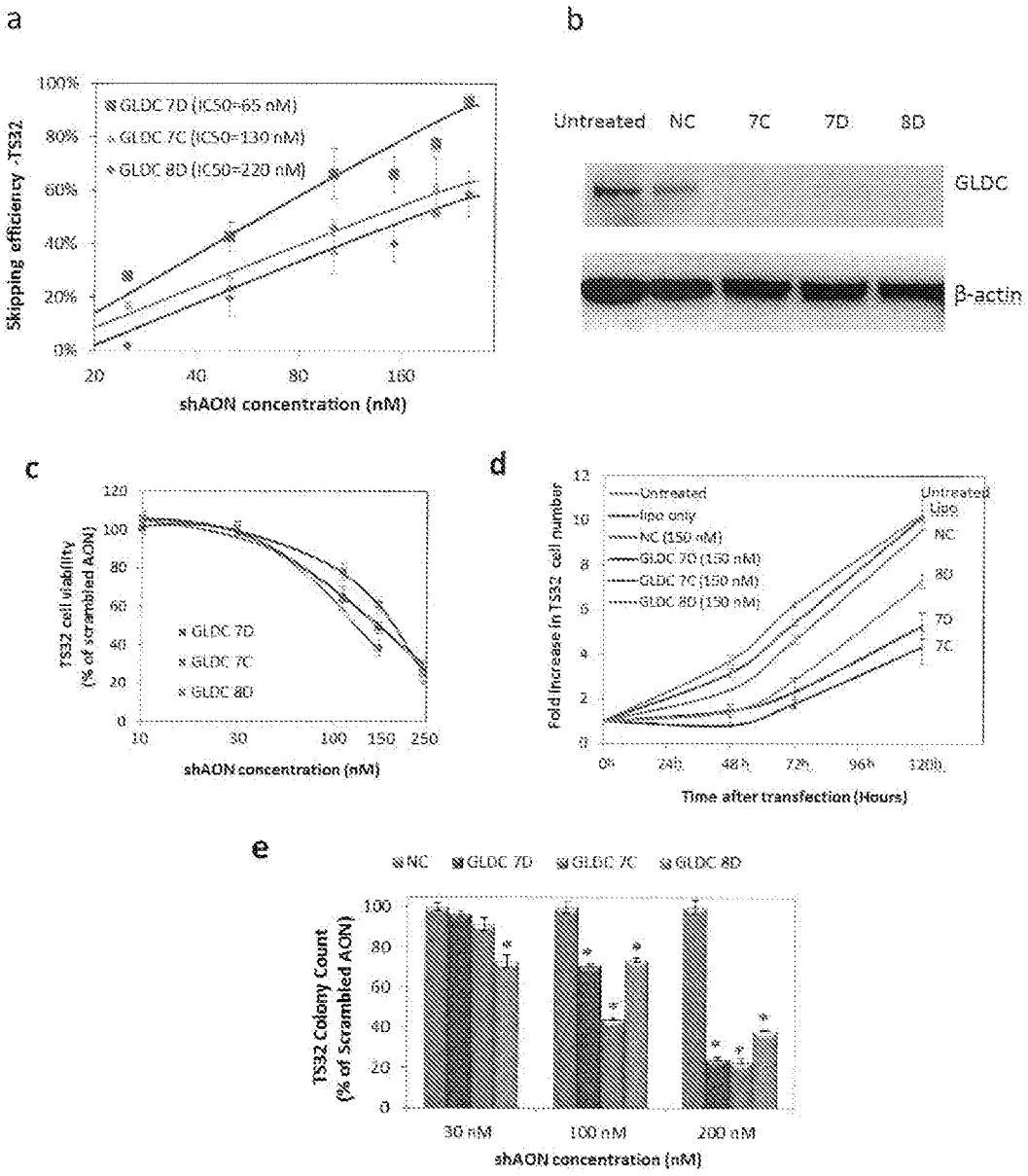


Figure 4

RECTIFIED SHEET (RULE 91) ISA/SG

a

	Ratio of GLDC compared with A549
A549	1.0000
TS32	4.0057
RS4;11	14.9614
THP-1	1.9972
MRCS*	0.0015

*: Non-cancer cells

b

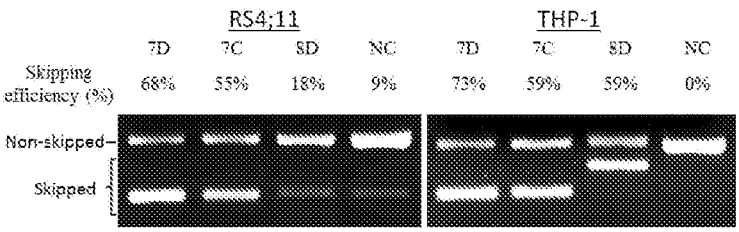


Figure 5

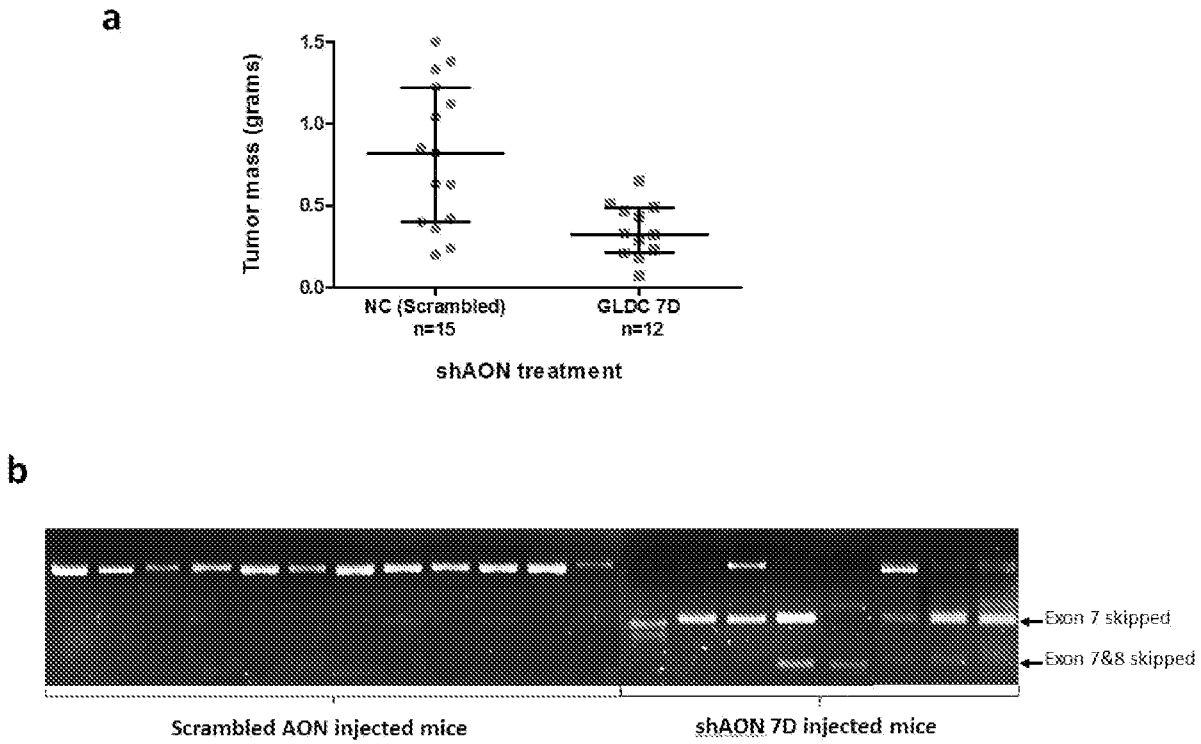

a
Tumor mass (grams)
1.5
1.0
0.5
0.0
NC (Scrambled)
n=15
GLDC 7D
n=12
shAON treatment
b
Exon 7 skipped
Exon 7&8 skipped
Scrambled AON injected mice
shAON 7D injected mice

Figure 6

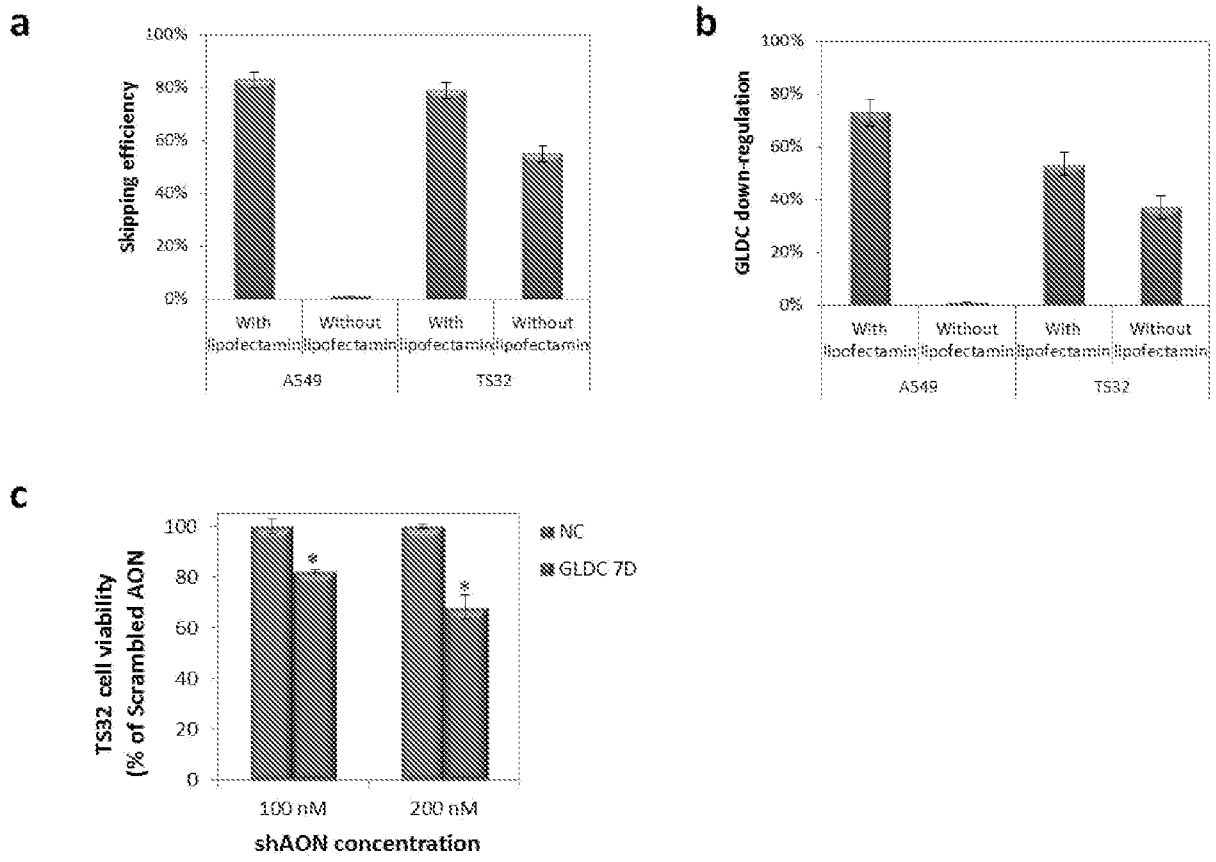

a
Skipping efficiency
100%
80%
60%
40%
20%
0%
With lipofectamin
Without lipofectamin
With lipofectamin
Without lipofectamin
A549
TS32
b
GLDC down-regulation
100%
80%
60%
40%
20%
0%
With lipofectamin
Without lipofectamin
With lipofectamin
Without lipofectamin
A549
TS32
c
TS32 cell viability (% of Scrambled AON
100
80
60
40
20
0
NC
GLDC 7D
*
*
100 nM
200 nM
shAON concentration

Figure 7