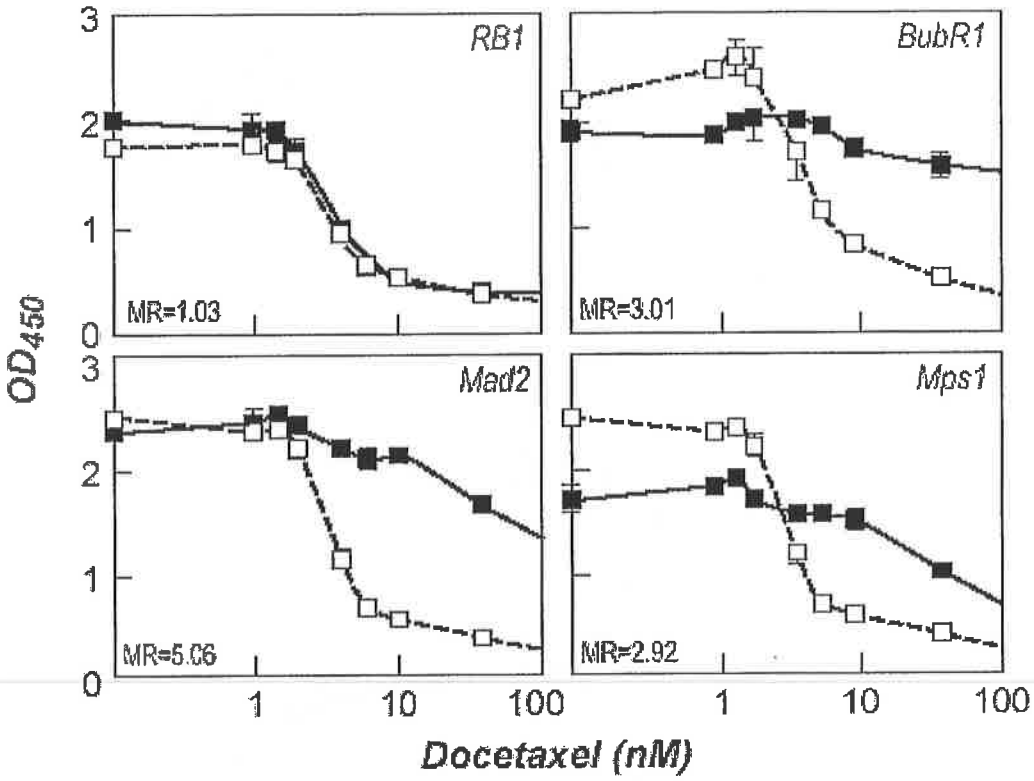
RB1
BubR1
Mad2
Mps1
MR=1.03
MR=3.01
MR=5.06
MR=2.92
OD450
Docetaxel (nM)
0
1
2
3
1
10
100

Figure 1

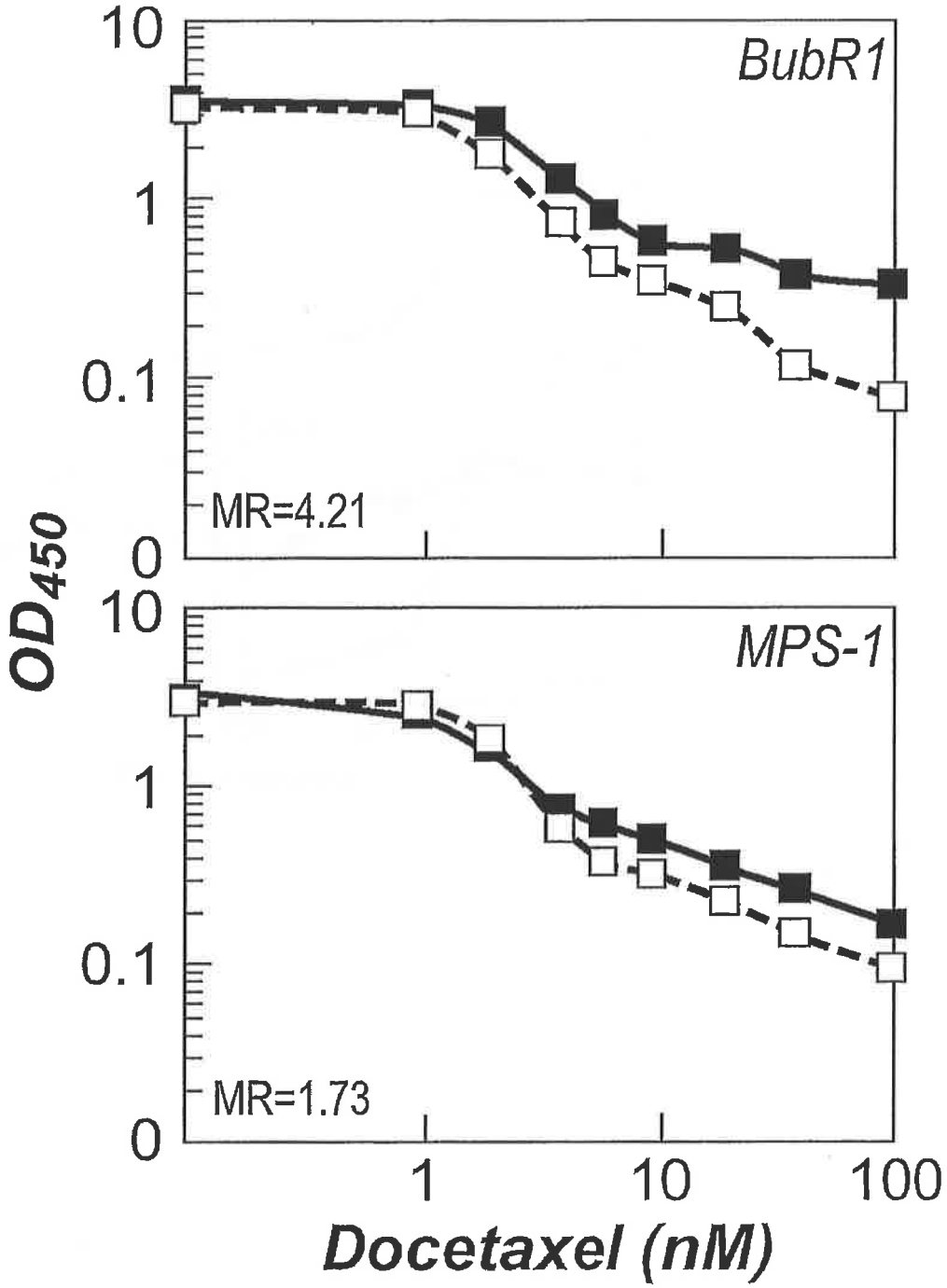

Figure 2

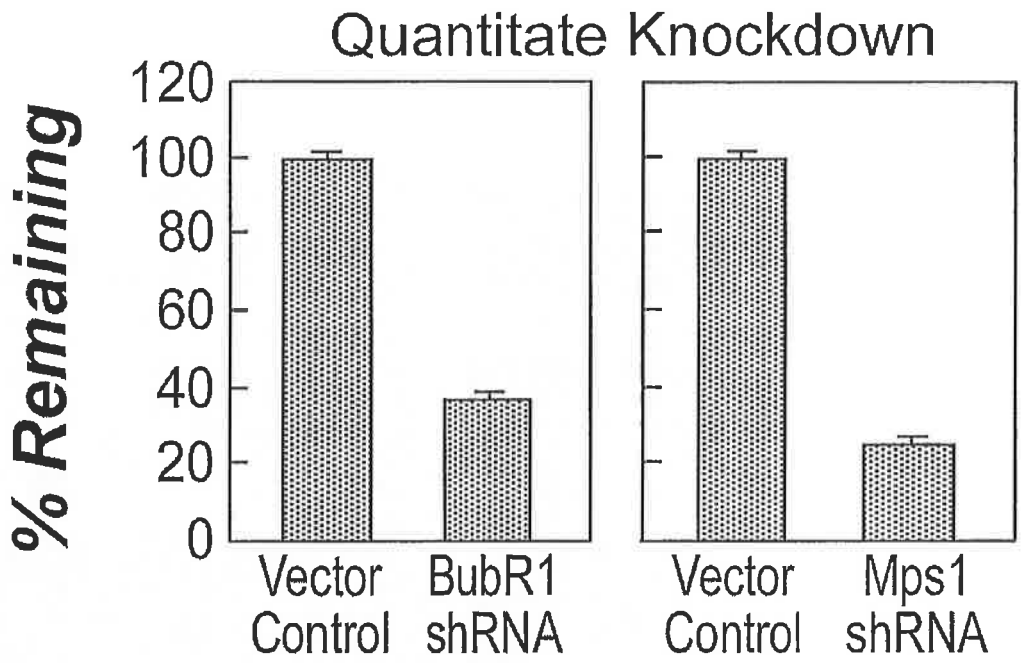
Quantitate Knockdown
% Remaining
120
100
80
60
40
20
0
Vector Control
BubR1 shRNA
Vector Control
Mps1 shRNA

Figure 3

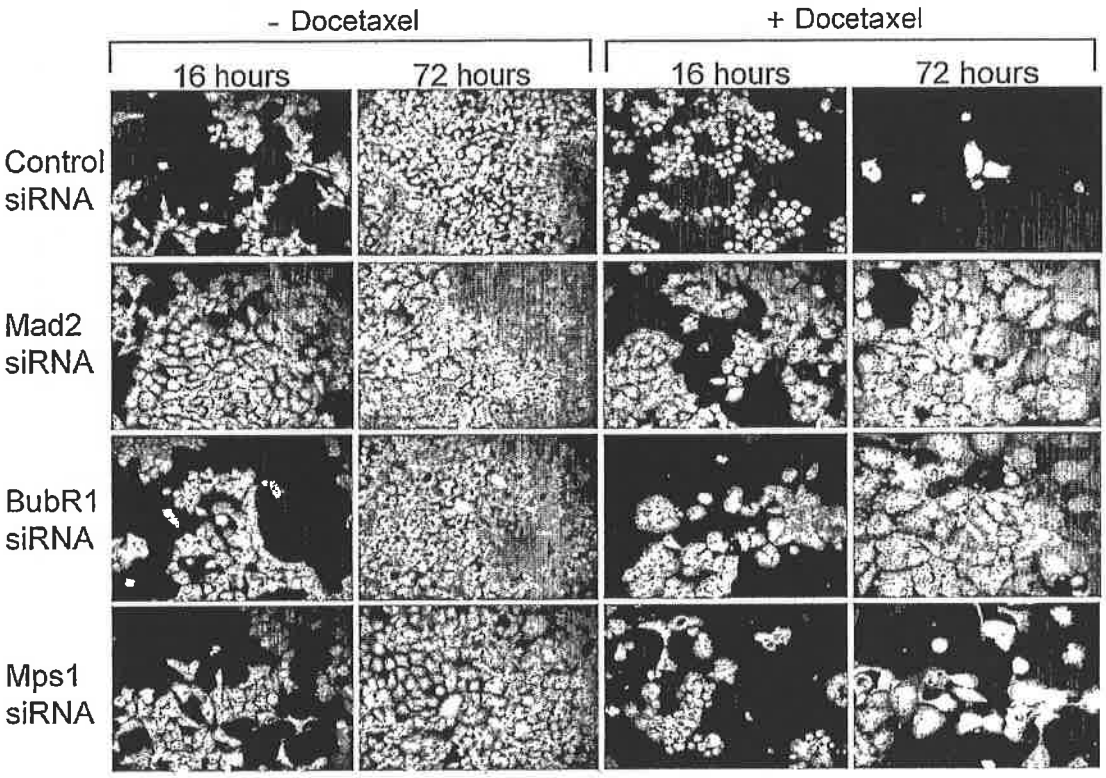
- Docetaxel
+ Docetaxel
16 hours
72 hours
16 hours
72 hours
Control siRNA
Mad2 siRNA
BubR1 siRNA
Mps1 siRNA

Figure 4

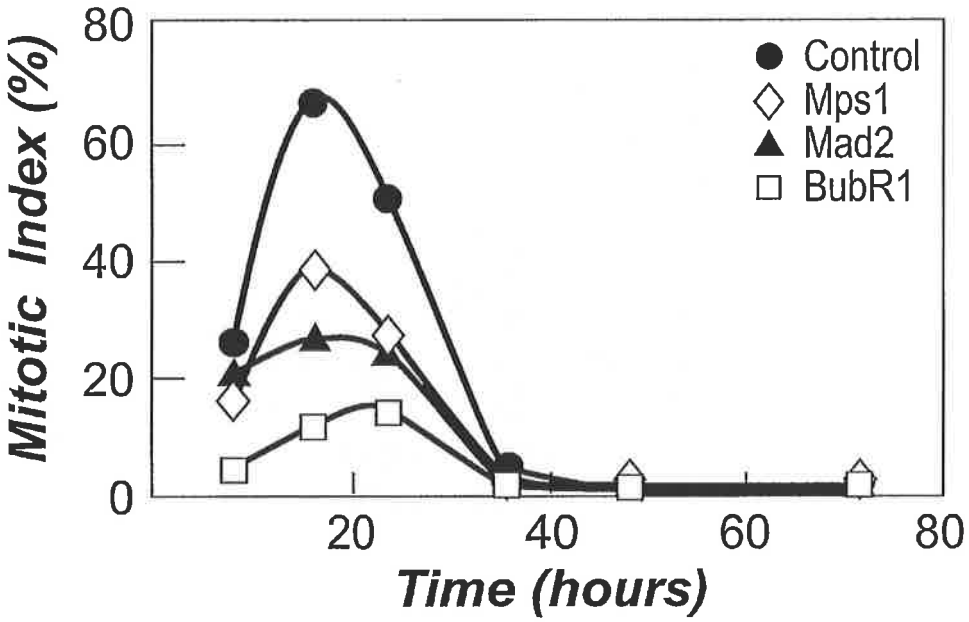
Mitotic Index (%)
80
60
40
20
0
20
40
60
80
Time (hours)
Control
Mps1
Mad2
BubR1

Figure 5

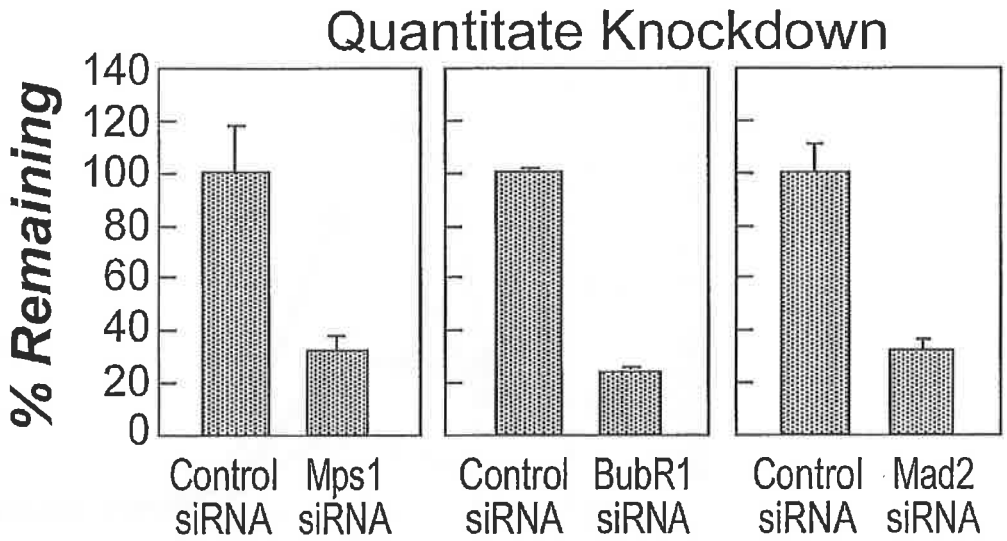
Quantitate Knockdown
% Remaining
140
120
100
80
60
40
20
0
Control siRNA
Mps1 siRNA
Control siRNA
BubR1 siRNA
Control siRNA
Mad2 siRNA

Figure 6

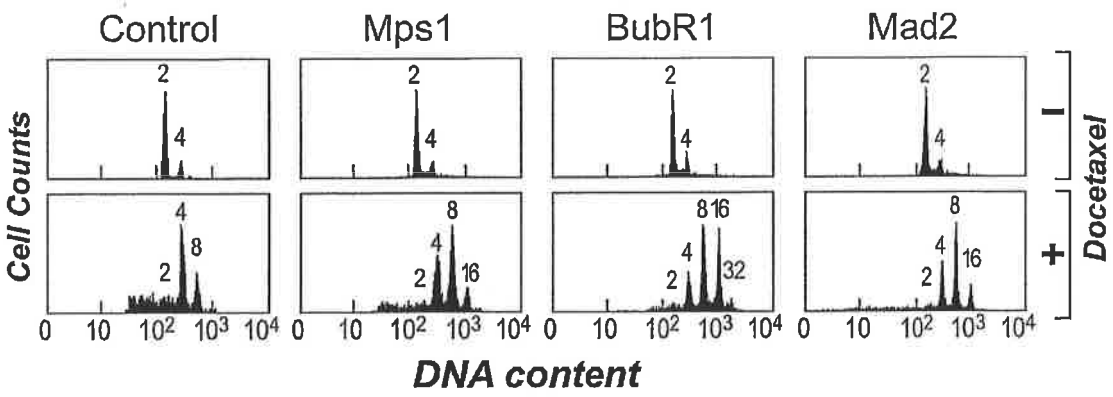
Control
Mps1
BubR1
Mad2
Cell Counts
DNA content
Docetaxel
-
+
0
10
10²
10³
10⁴
2
4
8
16
32

Figure 7

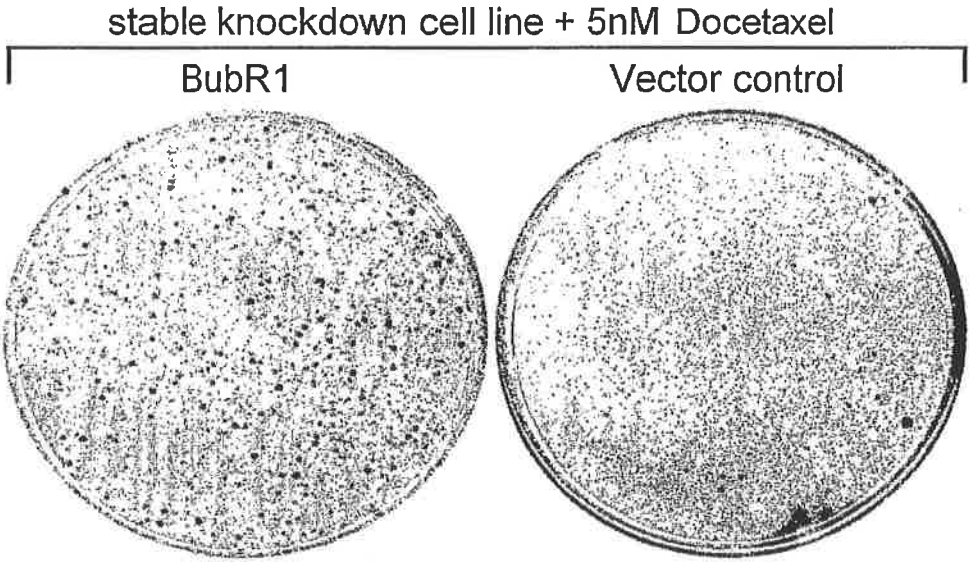
stable knockdown cell line + 5nM Docetaxel
BubR1
Vector control

Figure 8

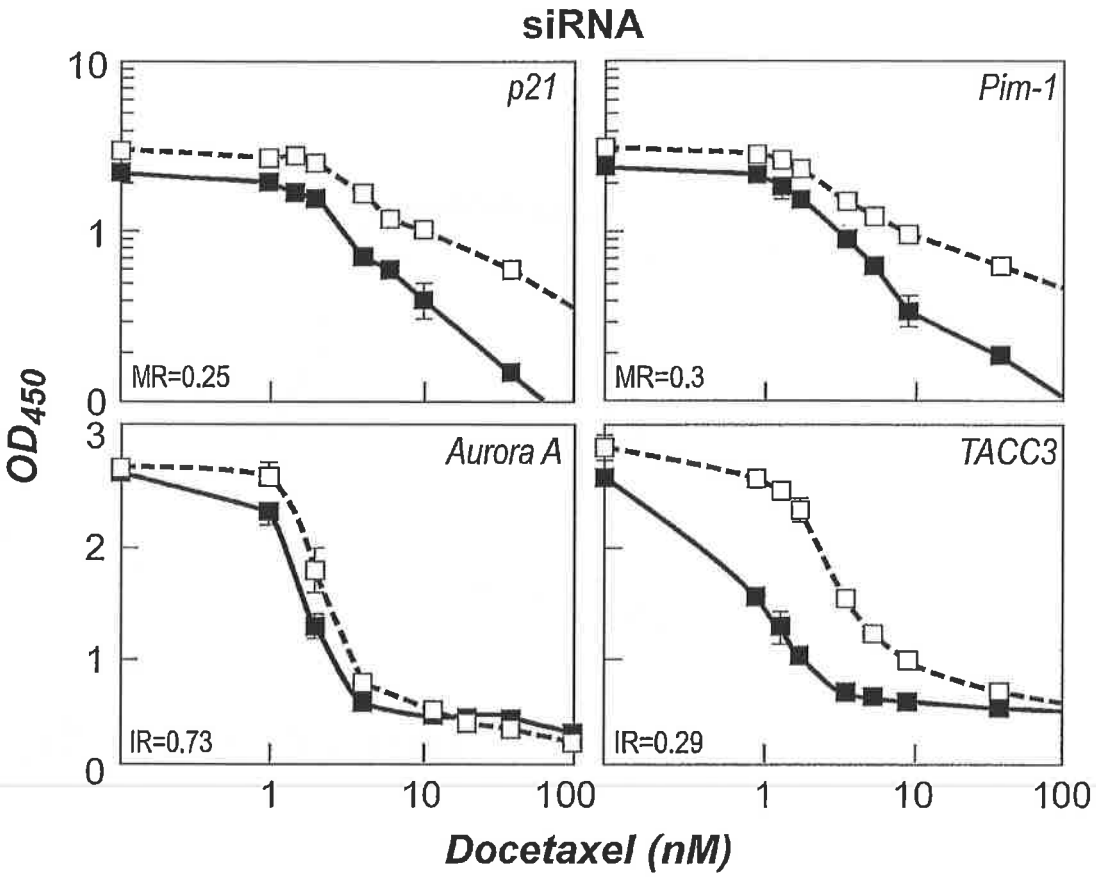
siRNA
p21
Pim-1
MR=0.25
MR=0.3
Aurora A
TACC3
IR=0.73
IR=0.29
OD450
Docetaxel (nM)
10
1
0
3
2
1
0
1
10
100

Figure 9

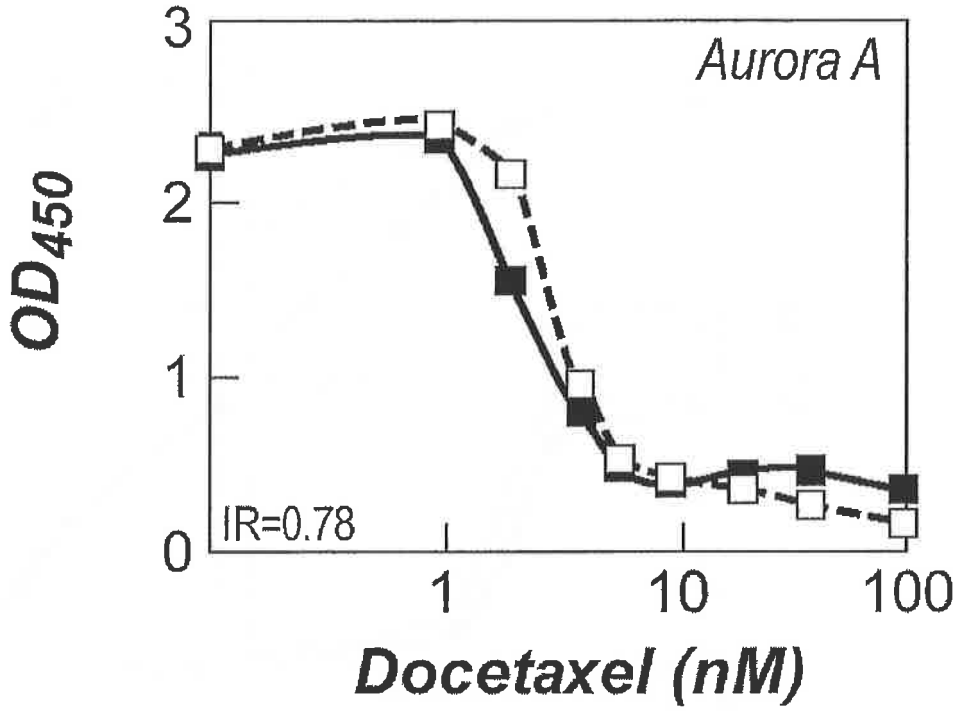

Figure 10

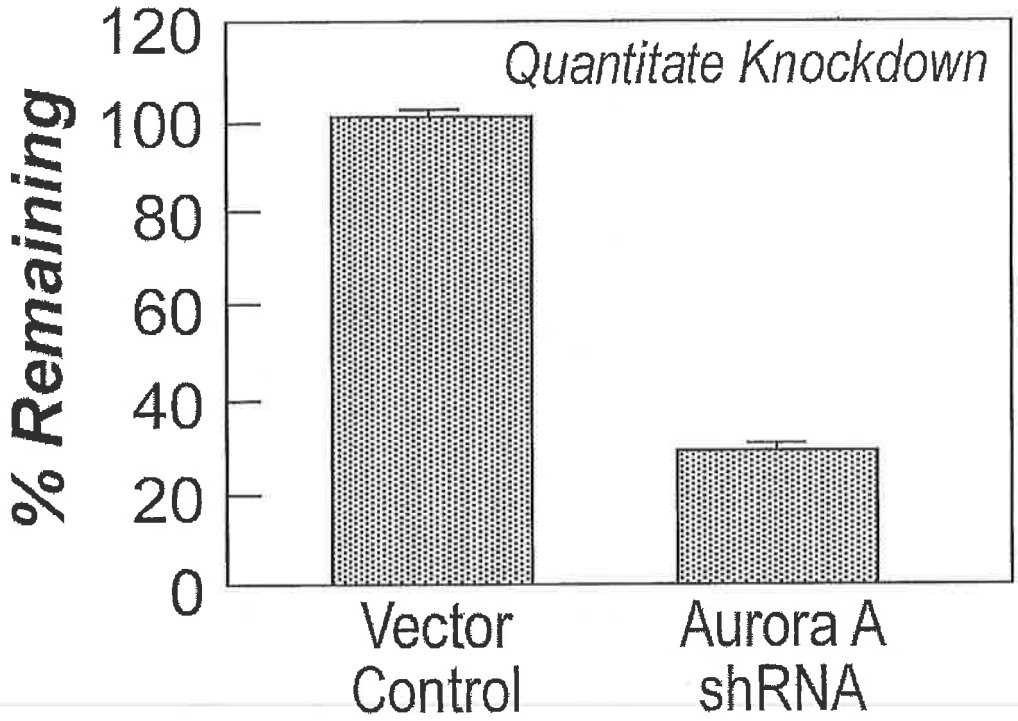
Quantitate Knockdown
% Remaining
120
100
80
60
40
20
0
Vector Control
Aurora A shRNA

Figure 11

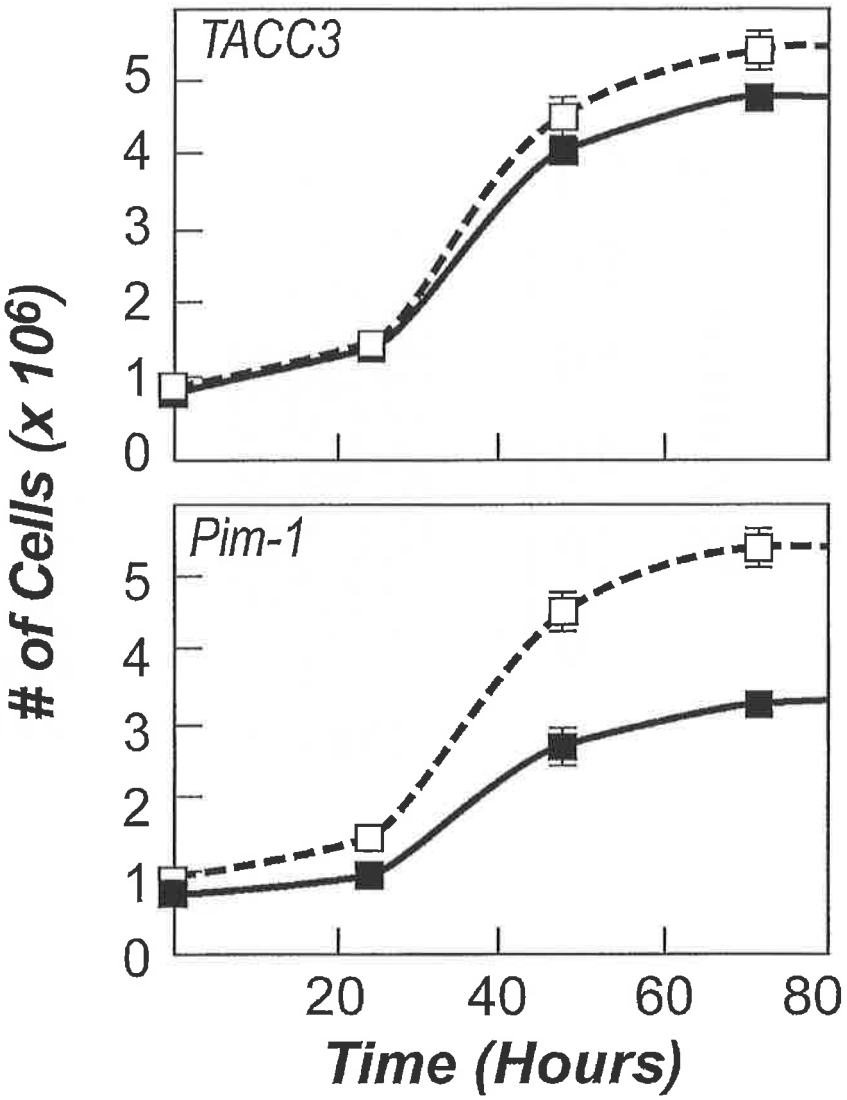

Figure 12

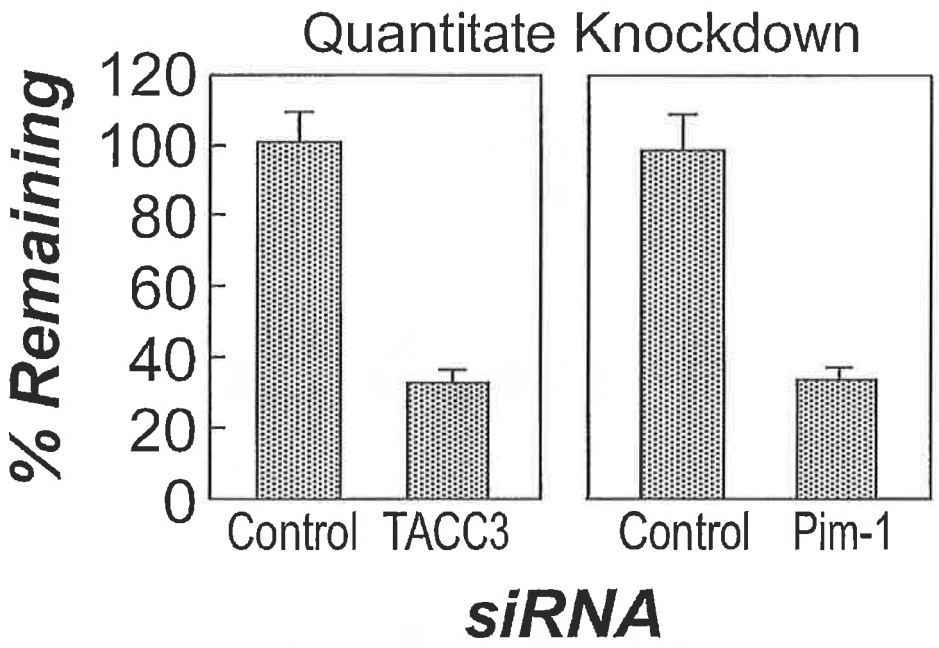
Quantitate Knockdown
% Remaining
120
100
80
60
40
20
0
Control
TACC3
Control
Pim-1
siRNA

Figure 13

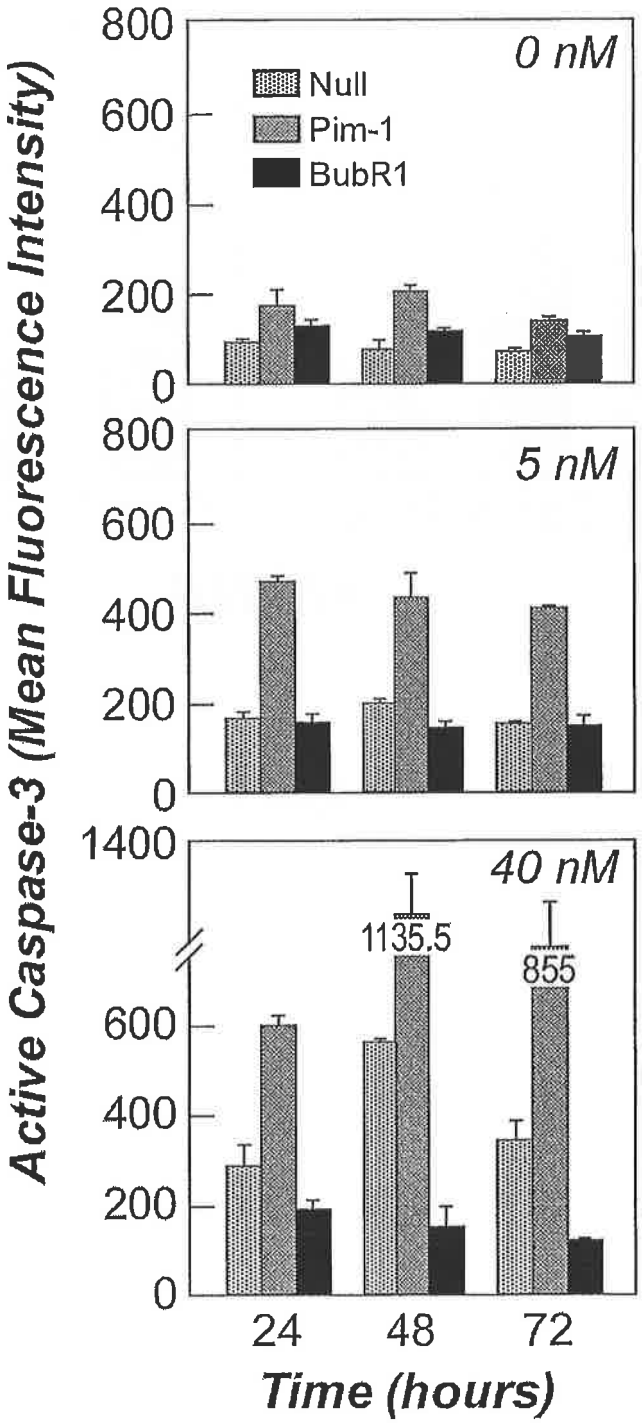
Active Caspase-3 (Mean Fluorescence Intensity)
0 nM
Null
Pim-1
BubR1
800
600
400
200
0
5 nM
800
600
400
200
0
40 nM
1400
1135.5
855
600
400
200
0
24
48
72
Time (hours)

Figure 14

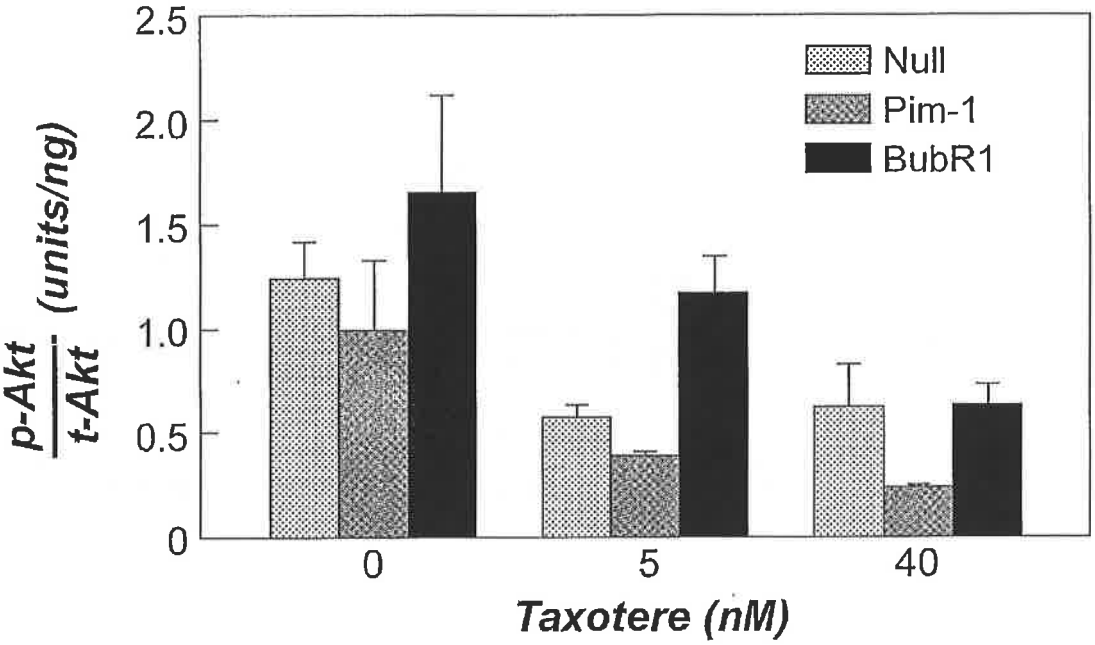
2.5
2.0
1.5
1.0
0.5
0
p-Akt / t-Akt (units/ng)
Null
Pim-1
BubR1
0
5
40
Taxotere (nM)

Figure 15

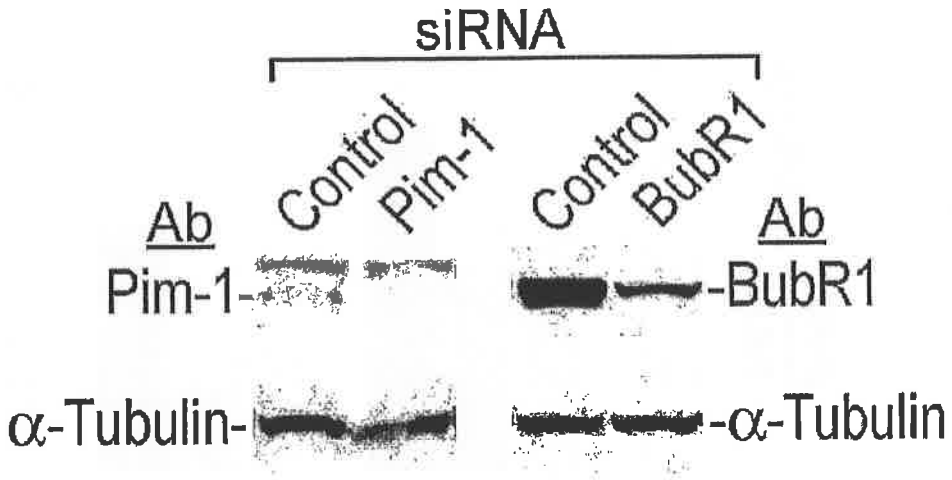
siRNA
Control
Pim-1
Control
BubR1
Ab
Ab
Pim-1-
-BubR1
α-Tubulin-
-α-Tubulin

Figure 16

SEQUENCE LISTING

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HUANG, Xi
NATESAN, Sridaran
AUGUST, Paul

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