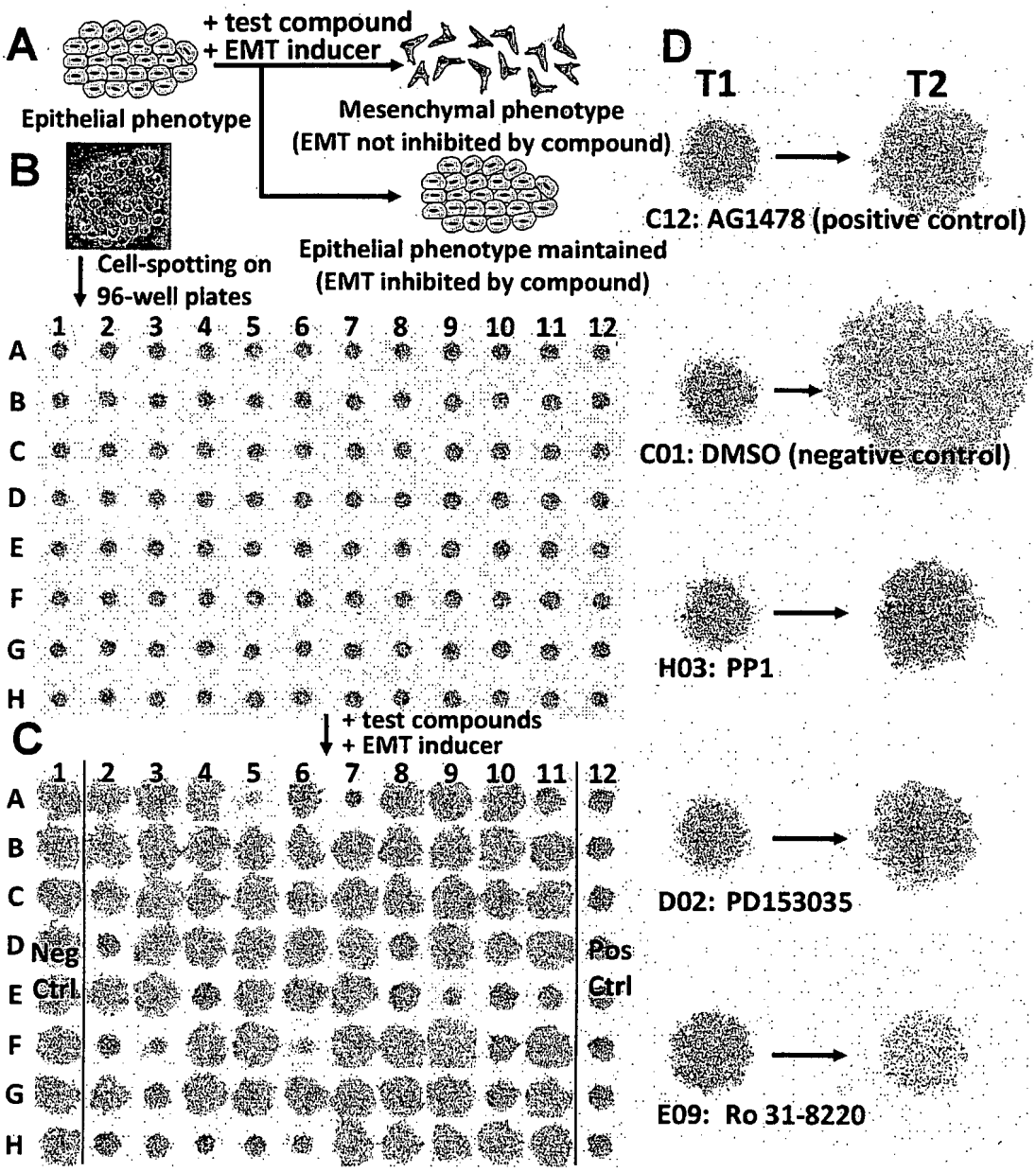
A
+ test compound
+ EMT inducer
Epithelial phenotype
Mesenchymal phenotype
(EMT not inhibited by compound)
B
Epithelial phenotype maintained
(EMT inhibited by compound)
Cell-spotting on
96-well plates
1 2 3 4 5 6 7 8 9 10 11 12
A
B
C
D
E
F
G
H
C
+ test compounds
+ EMT inducer
Neg Ctrl
Pos Ctrl
D
T1
T2
C12: AG1478 (positive control)
C01: DMSO (negative control)
H03: PP1
D02: PD153035
E09: Ro 31-8220

Figure 1

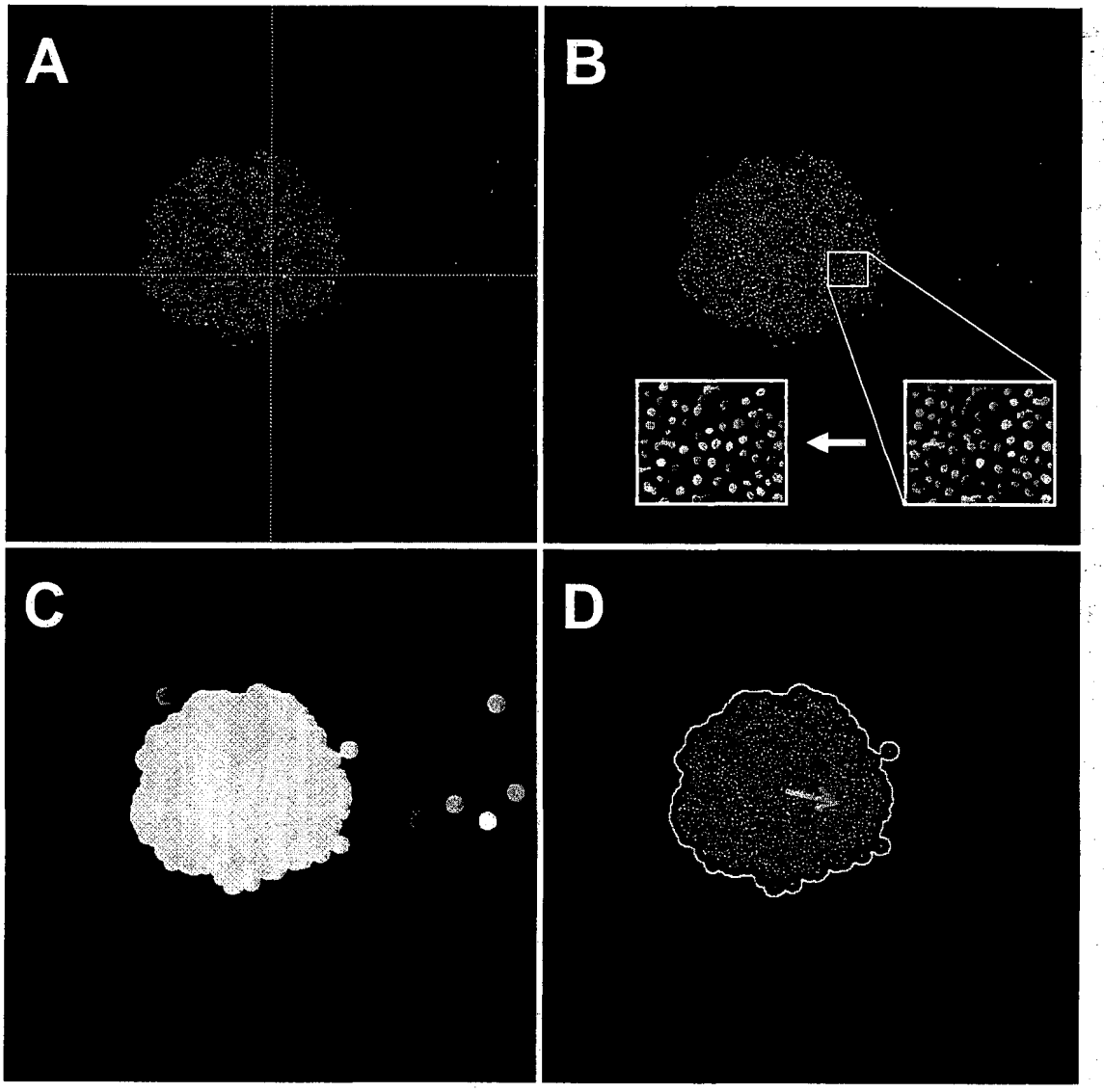

Figure 2

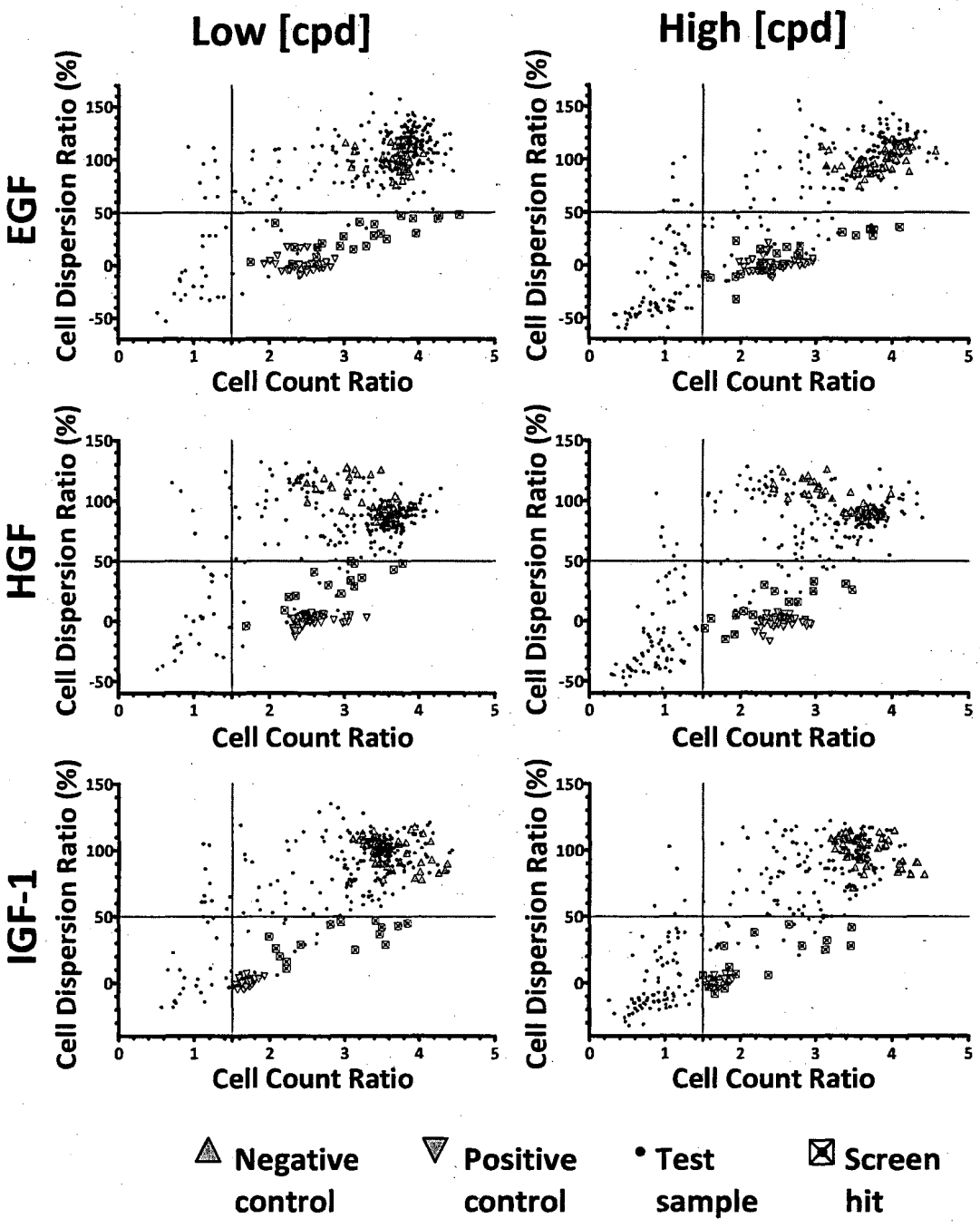
Low [cpd]
High [cpd]
EGF
HGF
IGF-1
Cell Dispersion Ratio (%)
Cell Count Ratio
Negative control
Positive control
Test sample
Screen hit

Figure 3

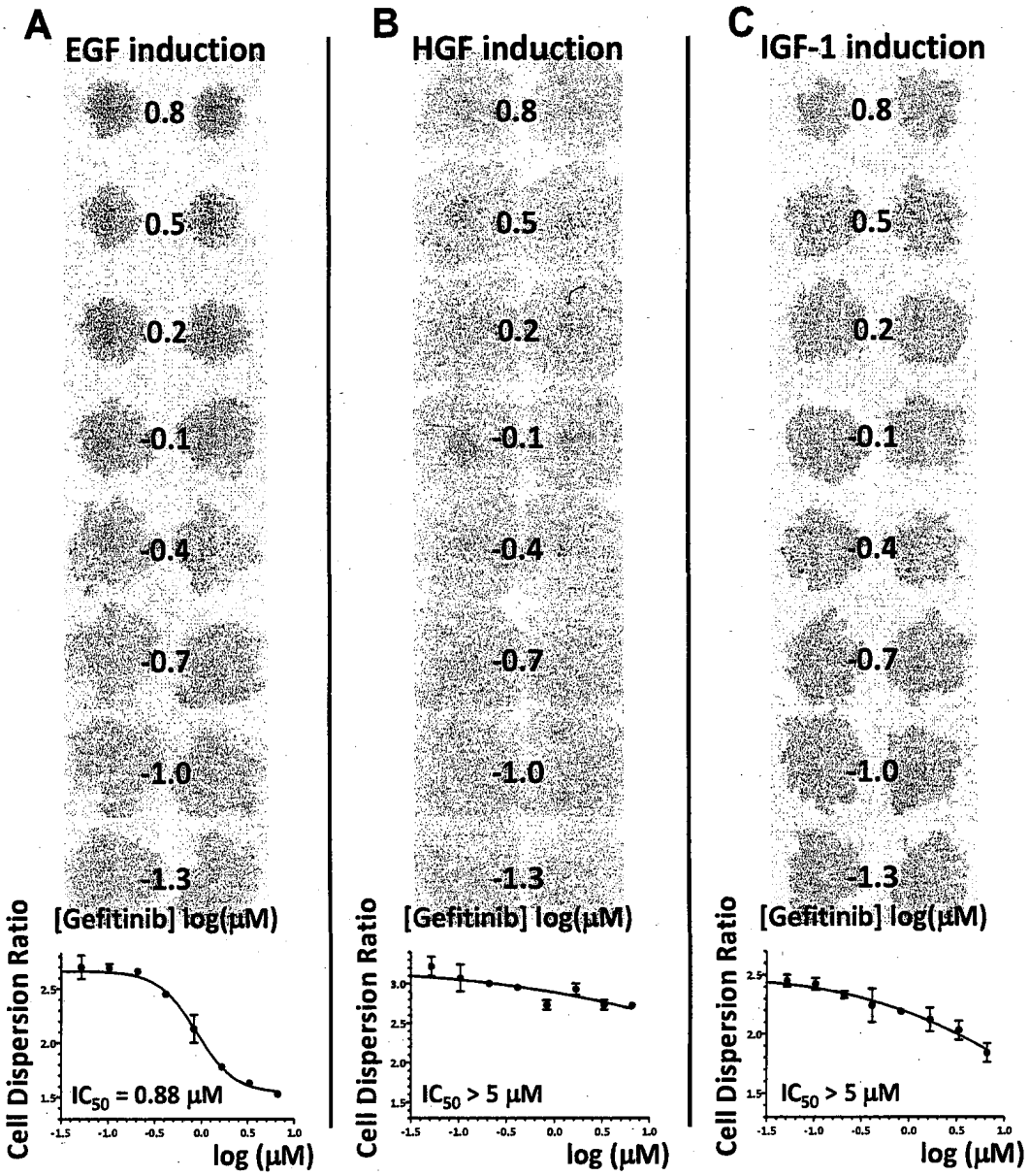
A
EGF induction
0.8
0.5
0.2
-0.1
-0.4
-0.7
-1.0
-1.3
[Gefitinib] log(μM)
Cell Dispersion Ratio
IC50 = 0.88 μM
log (μM)
B
HGF induction
0.8
0.5
0.2
-0.1
-0.4
-0.7
-1.0
-1.3
[Gefitinib] log(μM)
Cell Dispersion Ratio
IC50 > 5 μM
log (μM)
C
IGF-1 induction
0.8
0.5
0.2
-0.1
-0.4
-0.7
-1.0
-1.3
[Gefitinib] log(μM)
Cell Dispersion Ratio
IC50 > 5 μM
log (μM)

Figure 4

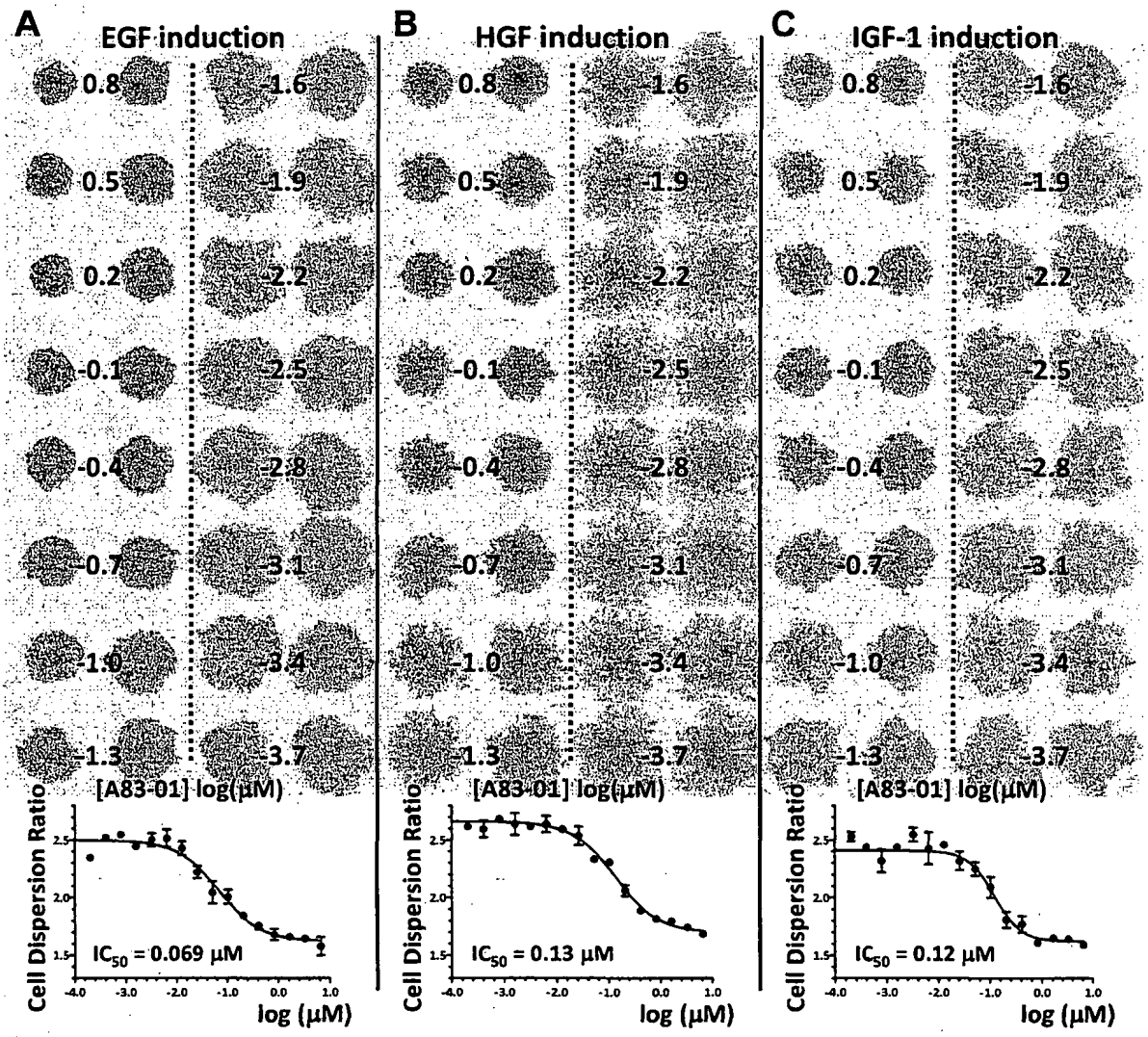
A
EGF induction
0.8
-1.6
0.5
-1.9
0.2
-2.2
-0.1
-2.5
-0.4
-2.8
-0.7
-3.1
-1.0
-3.4
-1.3
-3.7
[A83-01] log(μM)
Cell Dispersion Ratio
IC50 = 0.069 μM
log (μM)
B
HGF induction
IC50 = 0.13 μM
C
IGF-1 induction
IC50 = 0.12 μM

Figure 5

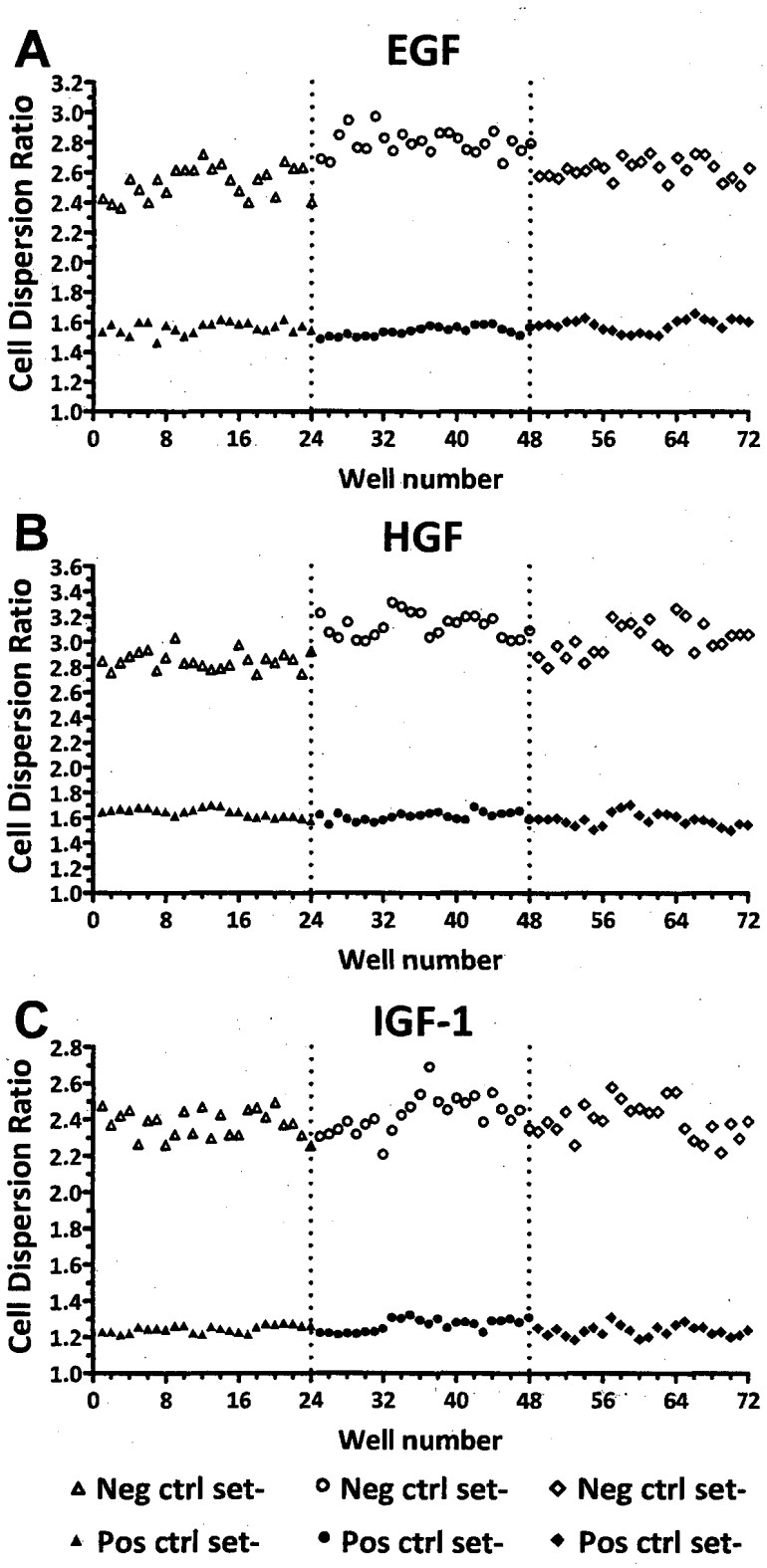
A
EGF
Cell Dispersion Ratio
Well number
B
HGF
Cell Dispersion Ratio
Well number
C
IGF-1
Cell Dispersion Ratio
Well number
Neg ctrl set-
Neg ctrl set-
Neg ctrl set-
Pos ctrl set-
Pos ctrl set-
Pos ctrl set-

Figure 6

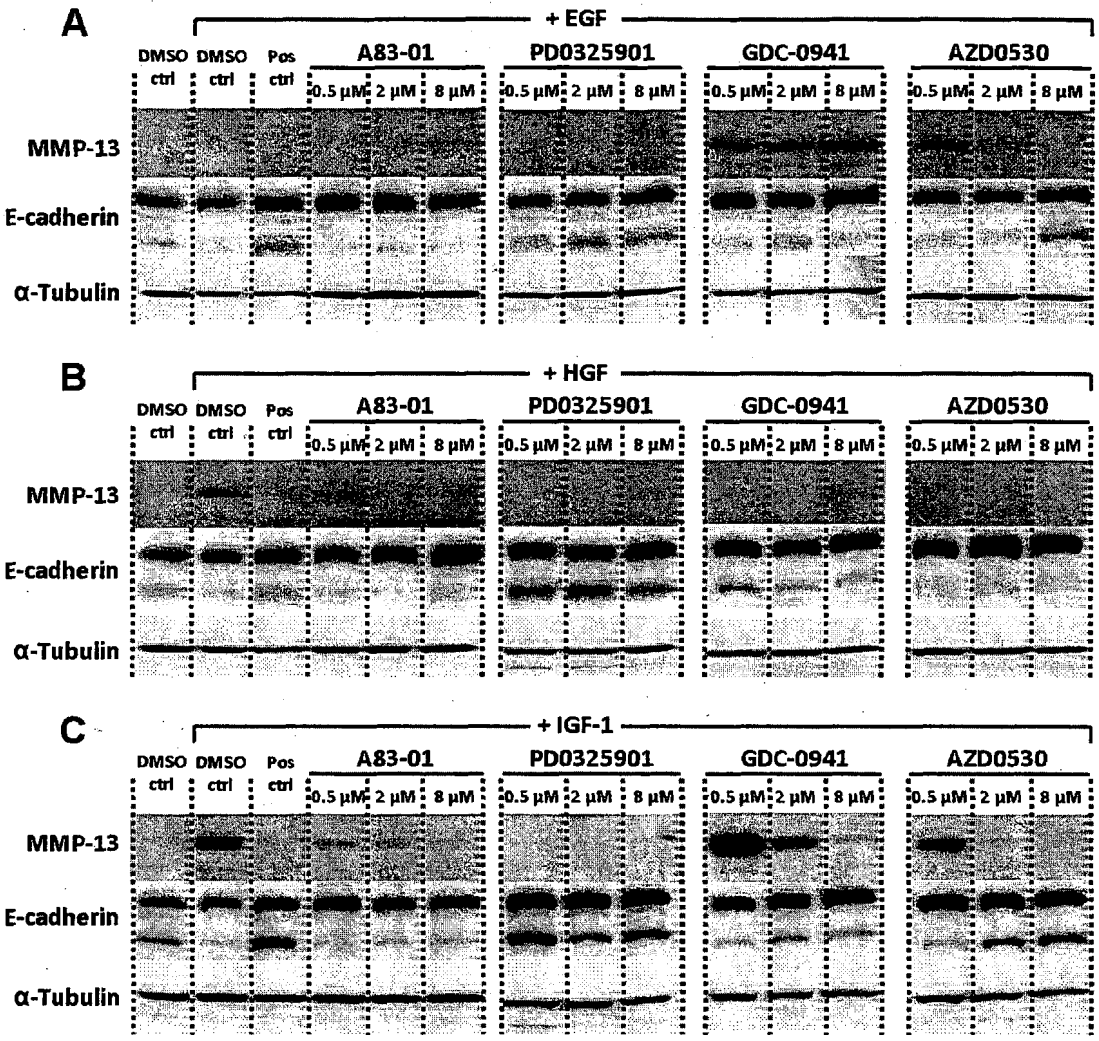
A
+ EGF
DMSO ctrl
DMSO ctrl
Pos ctrl
A83-01
PD0325901
GDC-0941
AZD0530
0.5 μM
2 μM
8 μM
MMP-13
E-cadherin
α-Tubulin
B
+ HGF
C
+ IGF-1

Figure 7

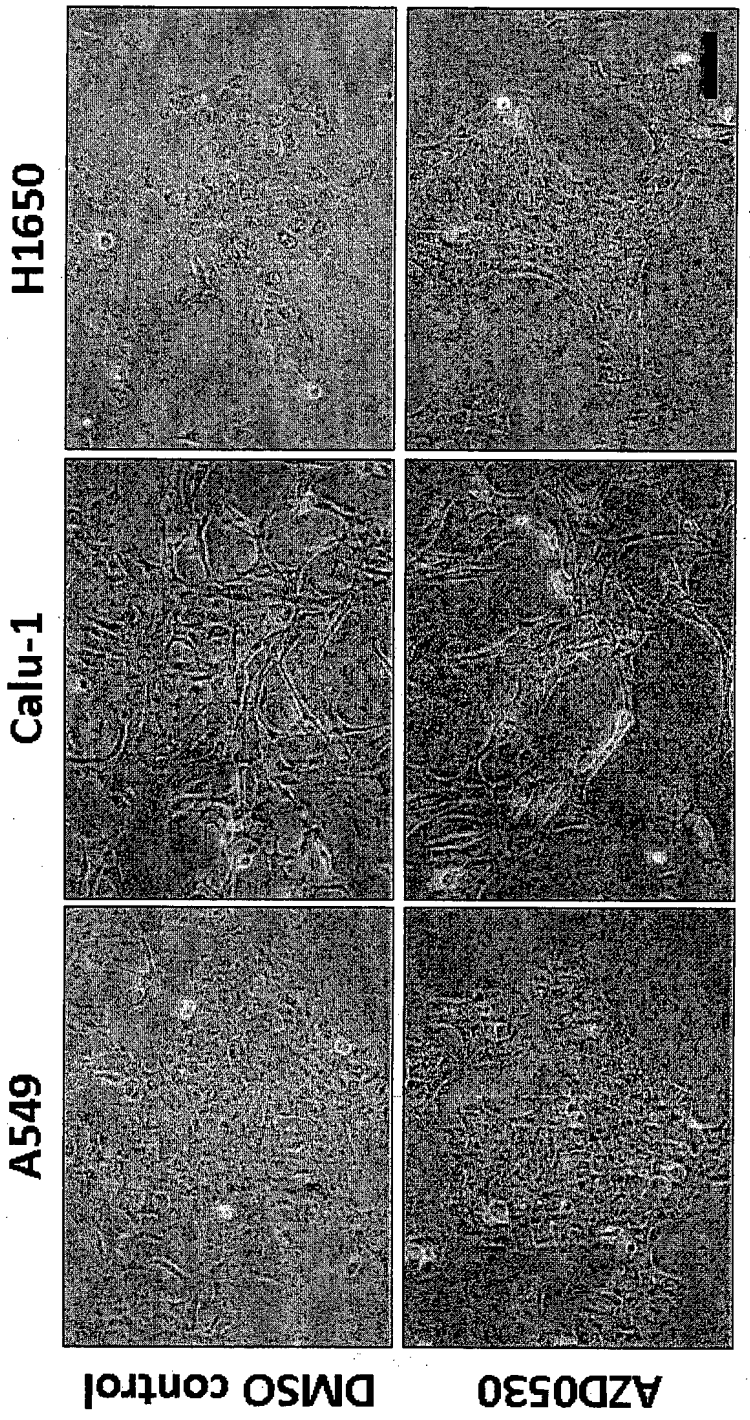

Figure 8

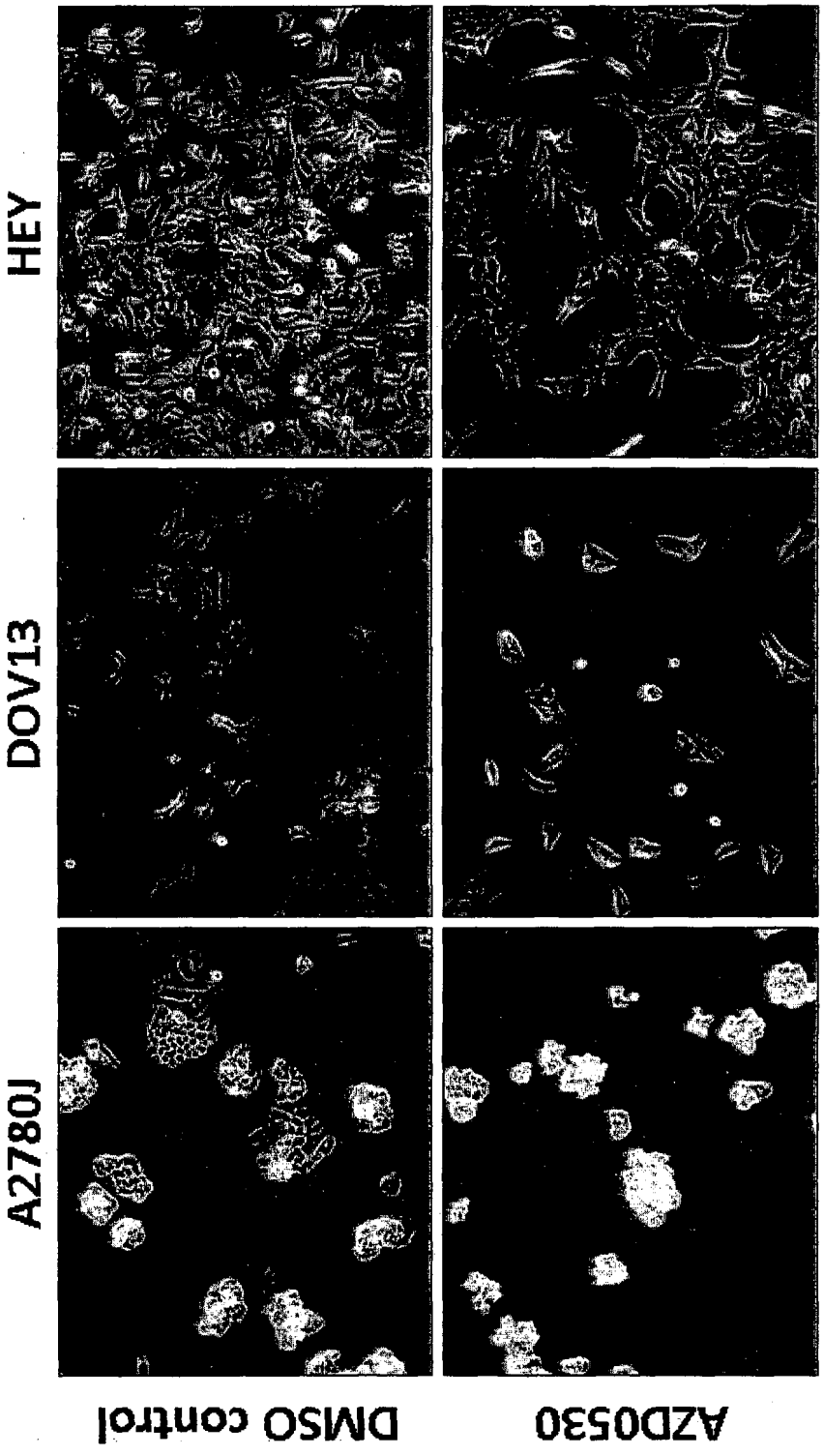

Figure 9

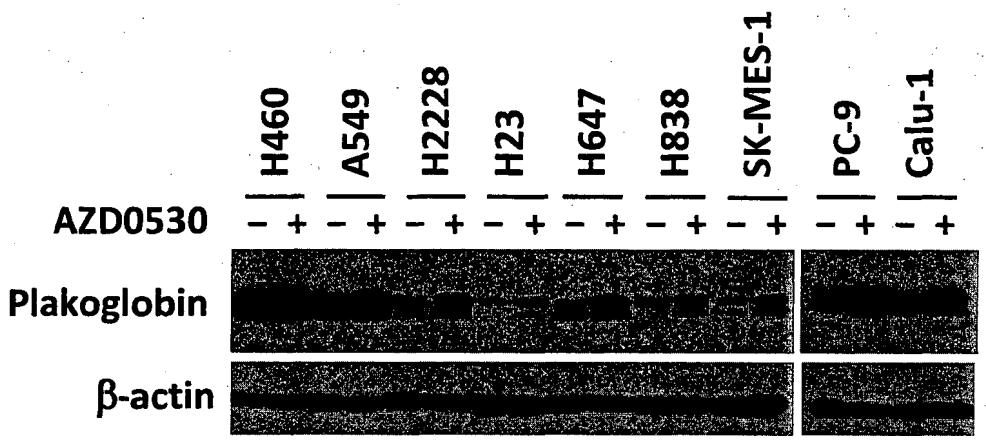

Figure 10

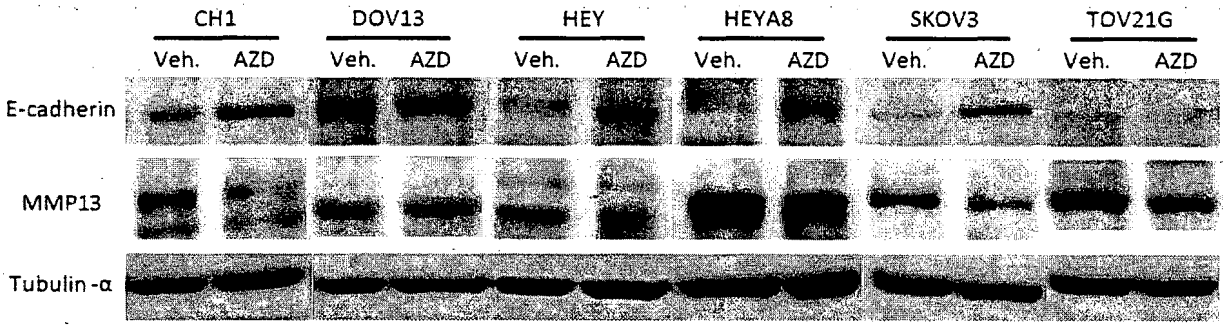

Figure 11

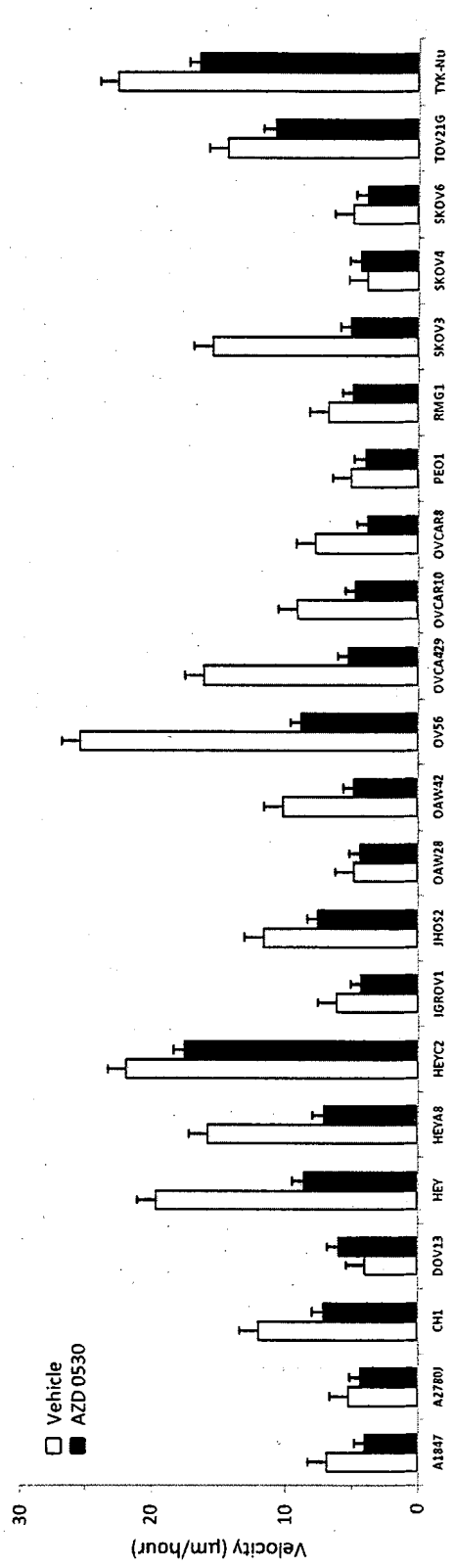
Vehicle
AZD 0530
Velocity (μm/hour)
0
10
20
30
A1847
A2780
CH1
DOV13
HEY
HEYA8
HEYC2
IGROV1
JHOS2
OAW28
OAW42
OV56
OVCA429
OVCAR10
OVCAR8
PEO1
RMG1
SKOV3
SKOV4
SKOV6
TOV21G
TYK-Nu

Figure 12

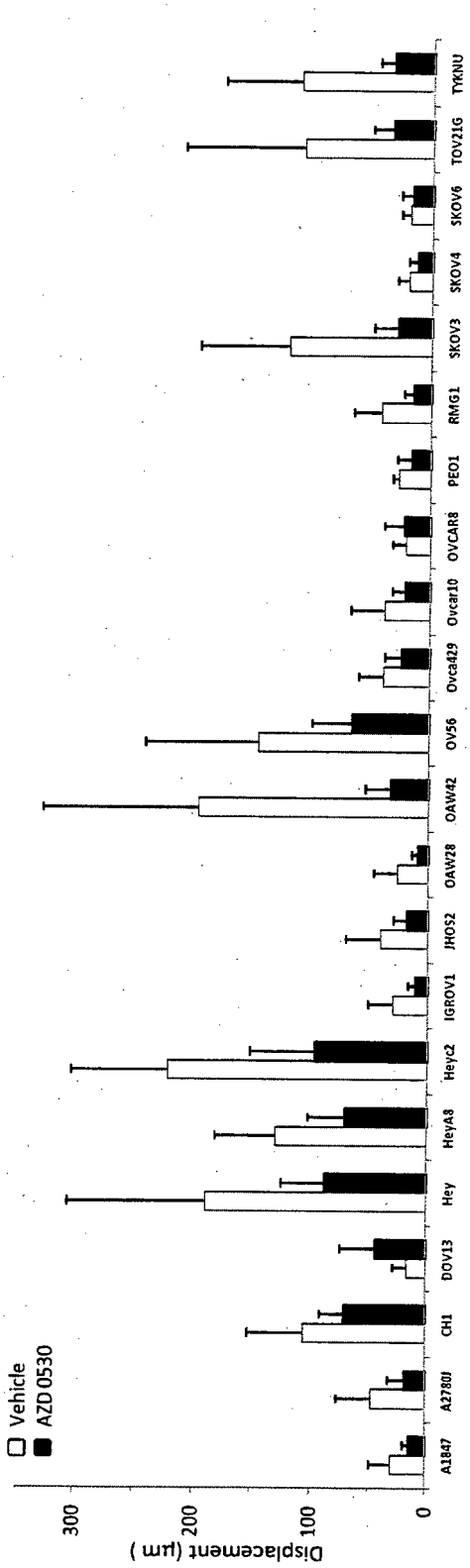
Vehicle
AZD0530
Displacement (μm)
0
100
200
300
A1847
A2780i
CH1
DOV13
Hey
HeyA8
Heyc2
IGROV1
JHOS2
OAW28
OAW42
OV56
Ovca429
Ovcar10
OVCAR8
PEO1
RMG1
SKOV3
SKOV4
SKOV6
TOV21G
TYKNU

Figure 13

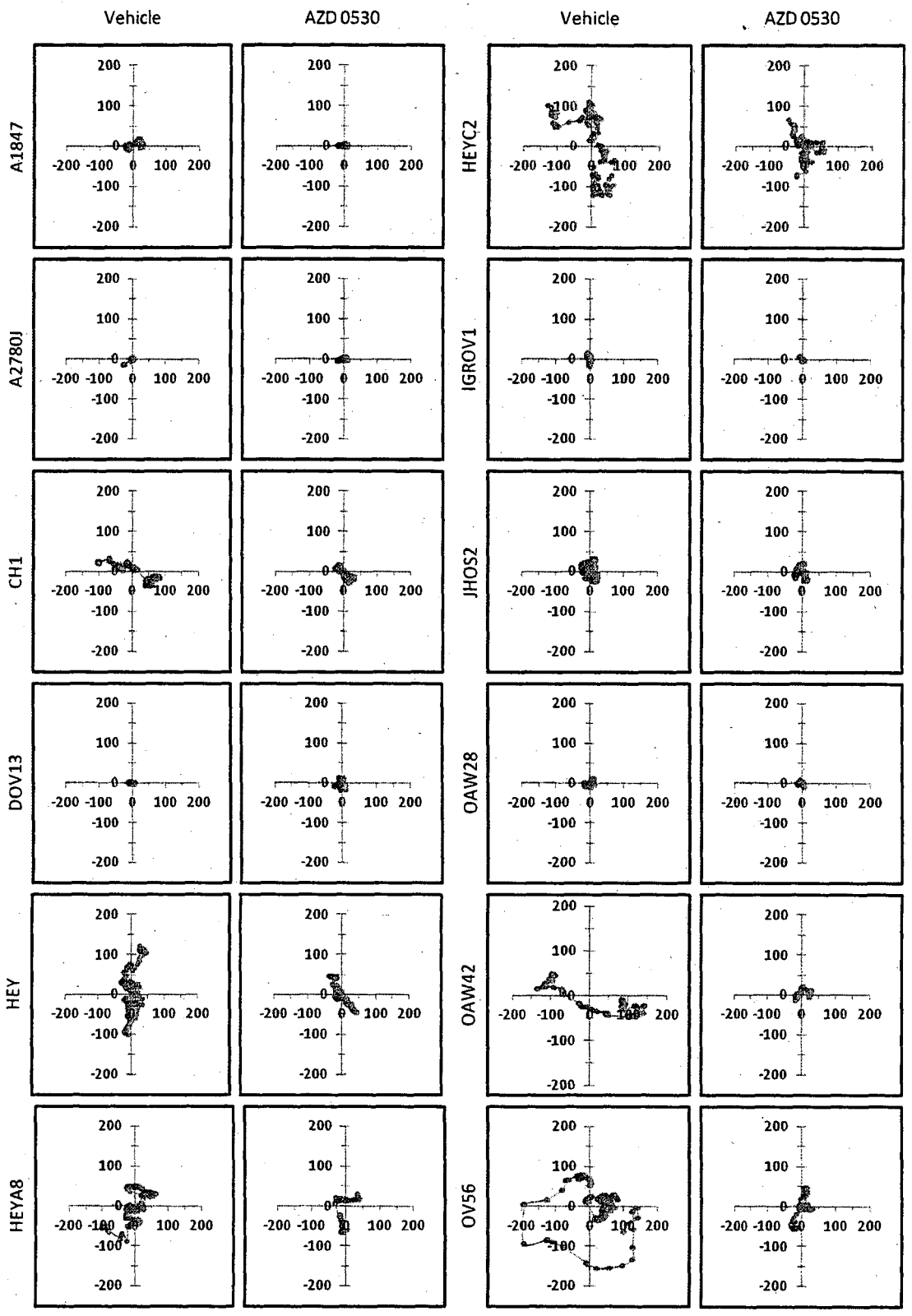
Vehicle
AZD 0530
Vehicle
AZD 0530
A1847
HEYC2
A2780J
IGROV1
CH1
JHOS2
DOV13
OAW28
HEY
OAW42
HEYA8
OV56
200
100
0
-100
-200
-200 -100 0 100 200

Figure 14

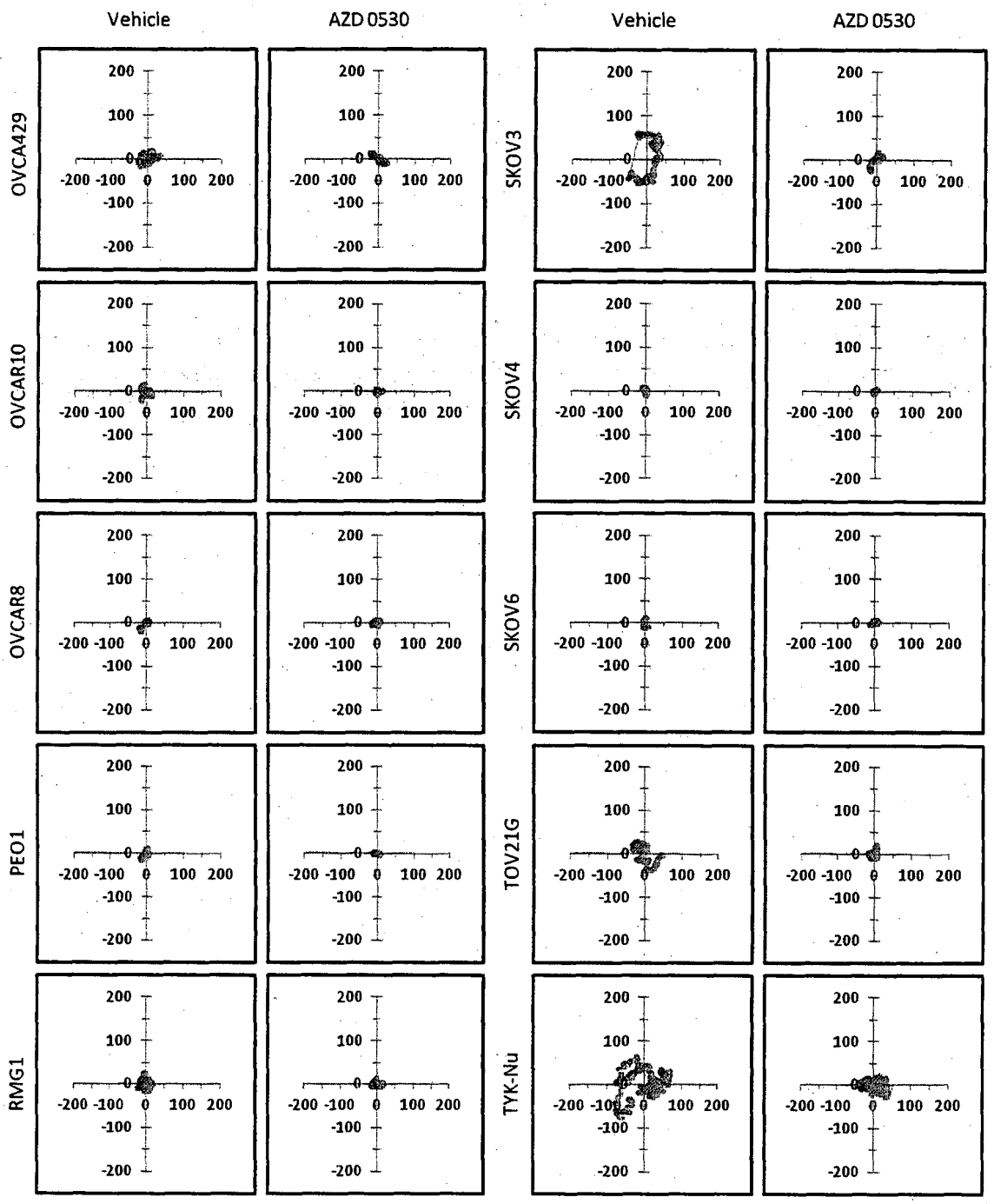

Figure 14 (Continued)