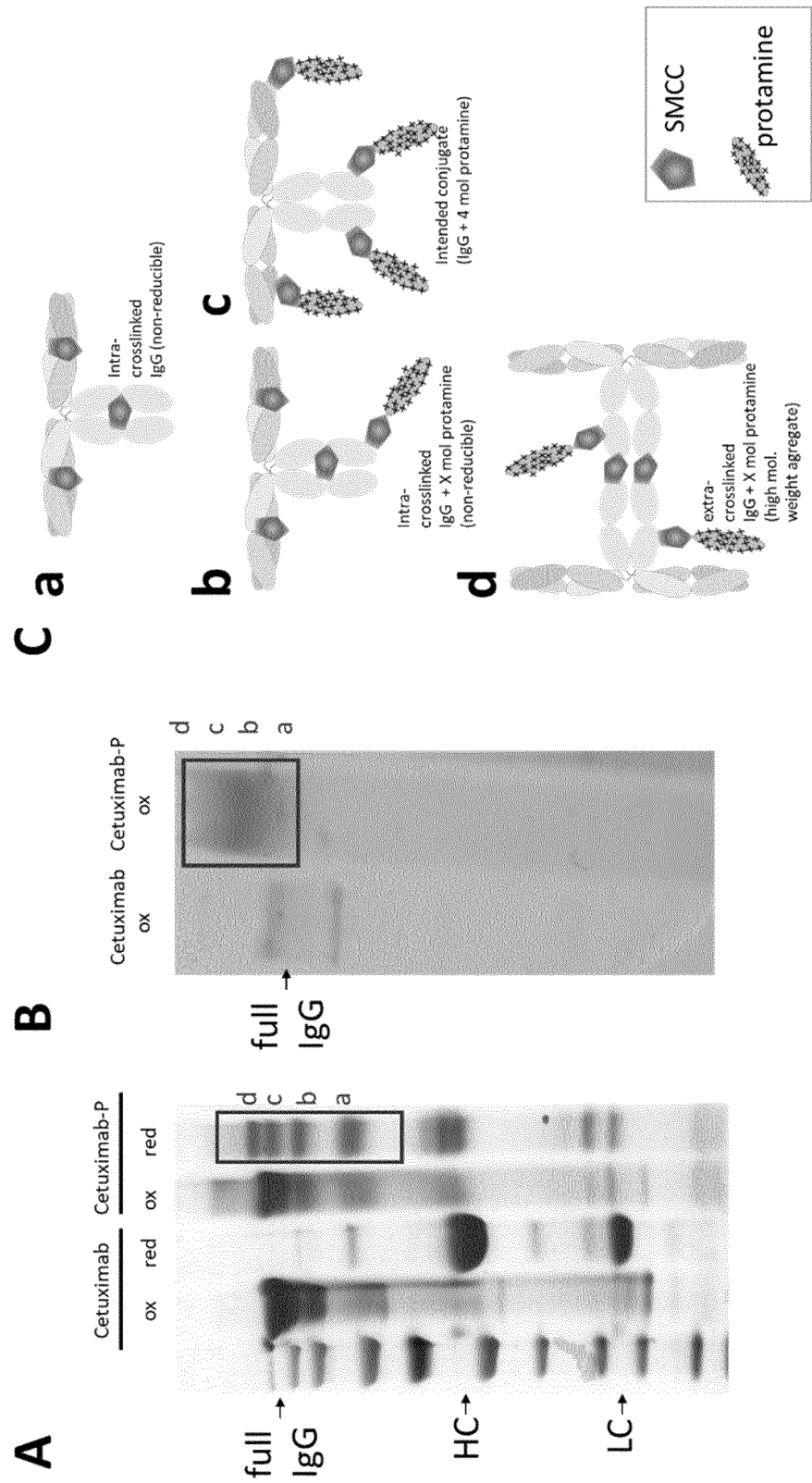


Figure 1



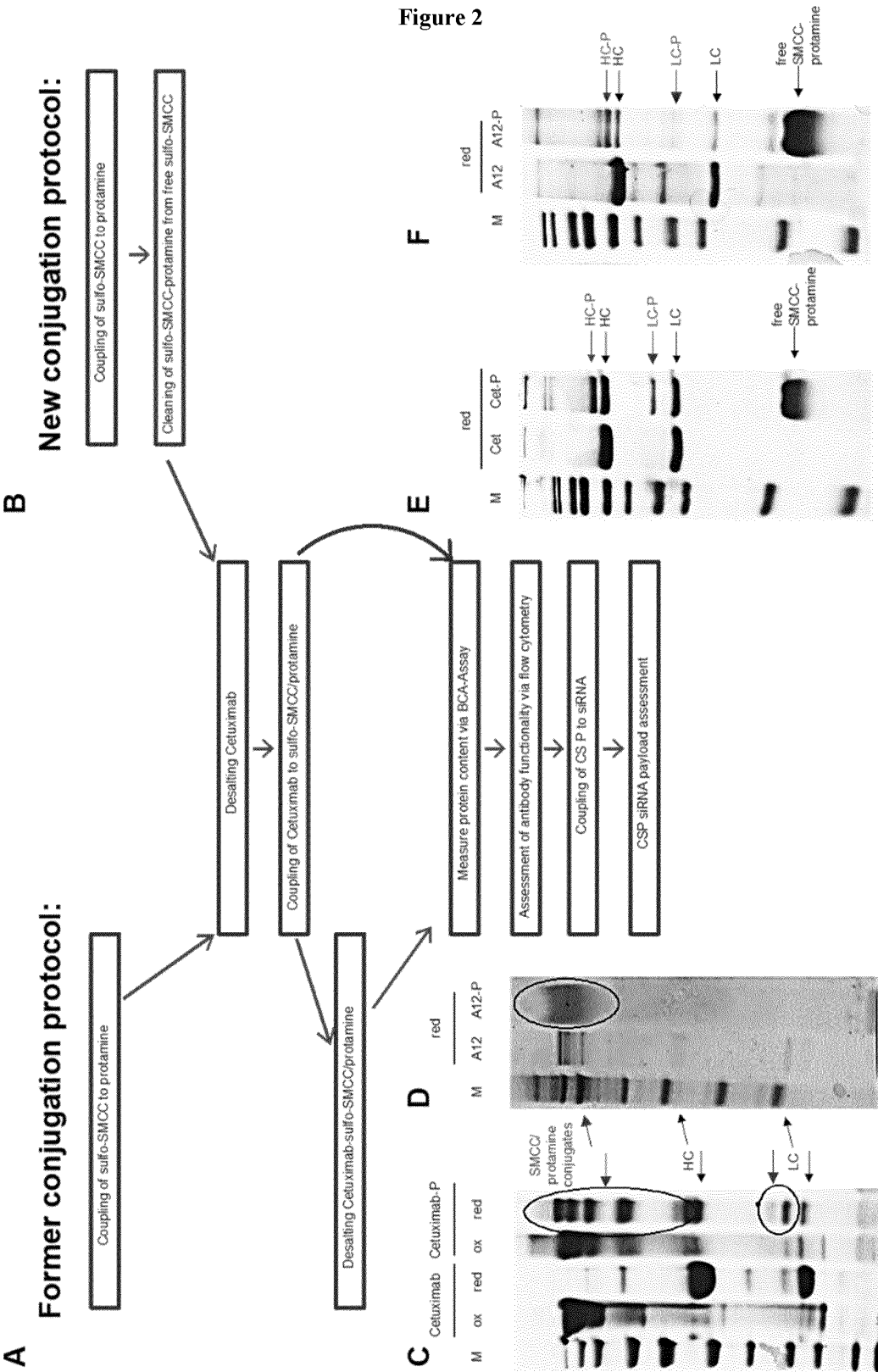


Figure 2

Figure 2

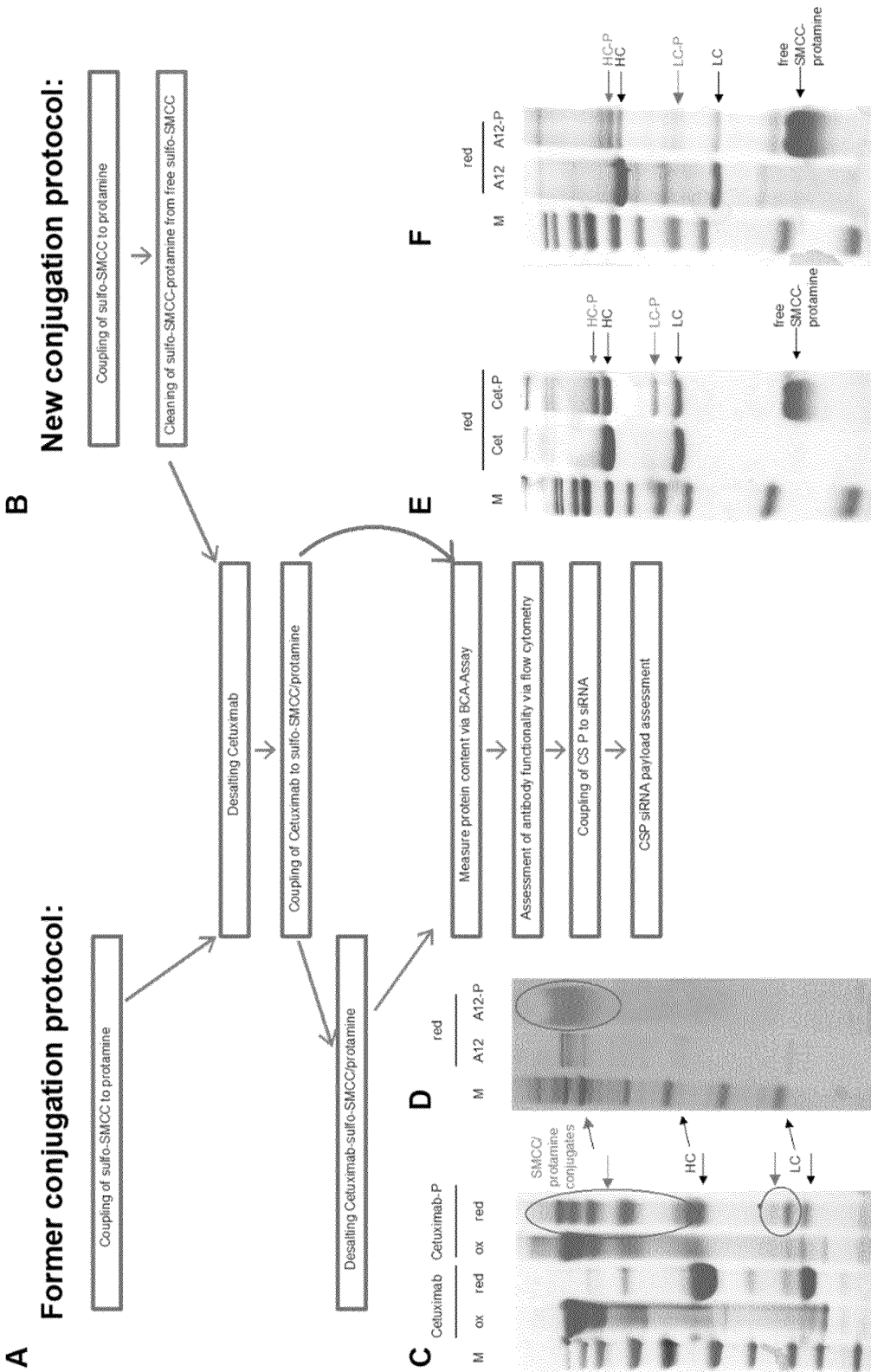


Figure 3

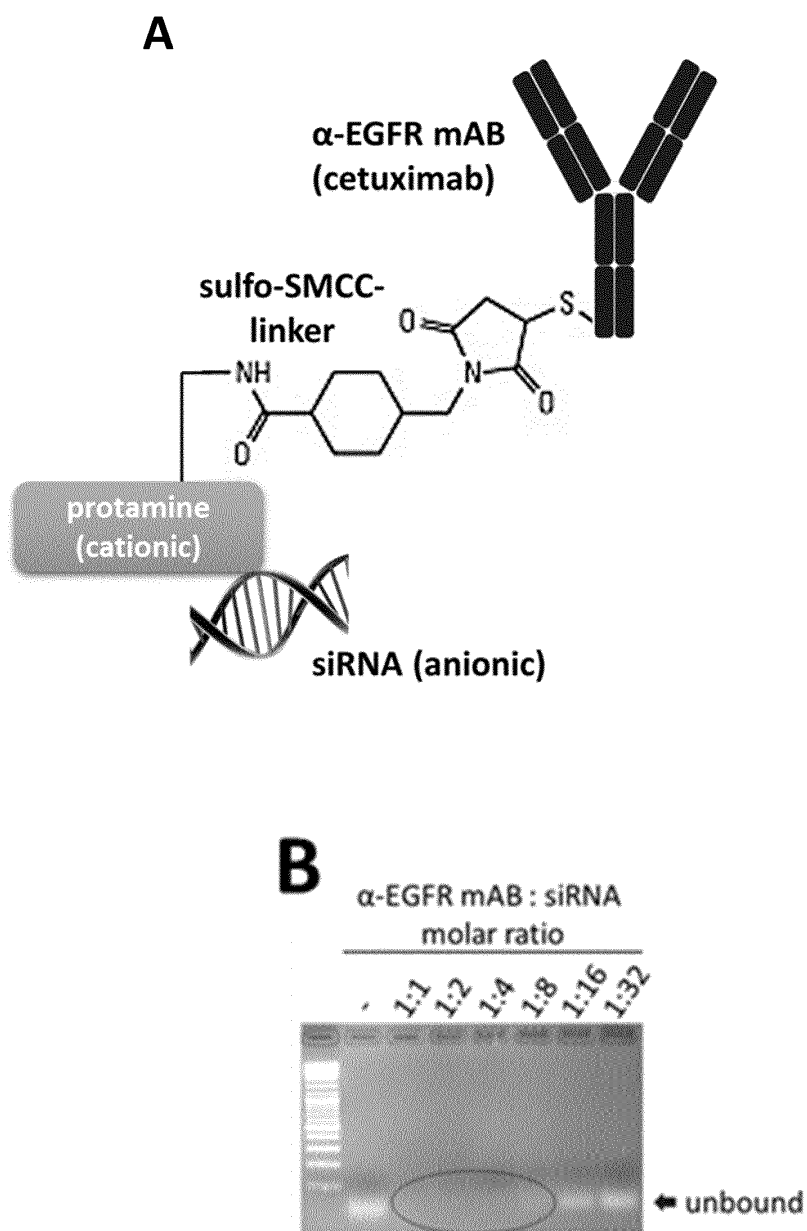


Figure 3 (cont'd)

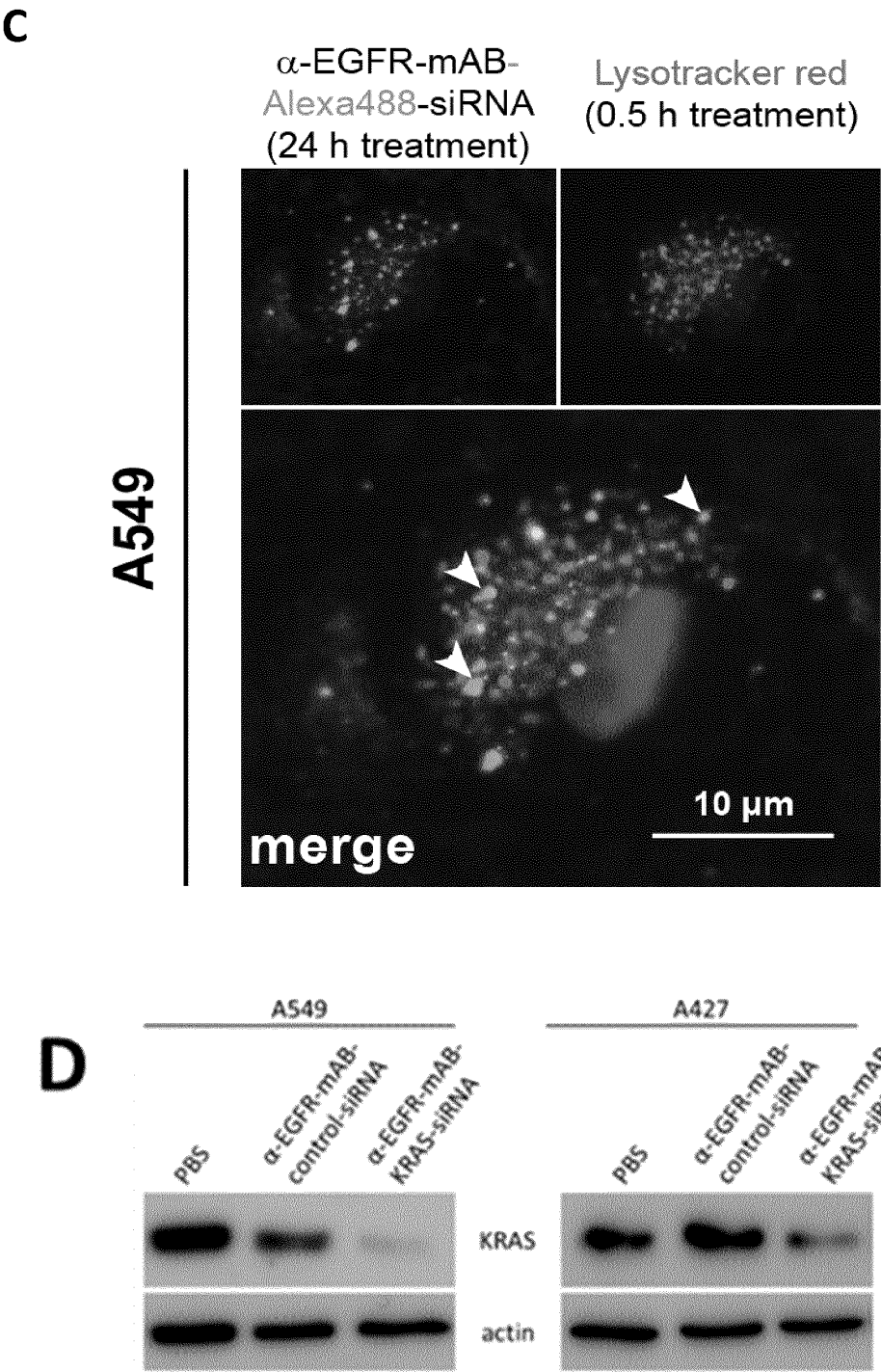


Figure 3 (cont'd)

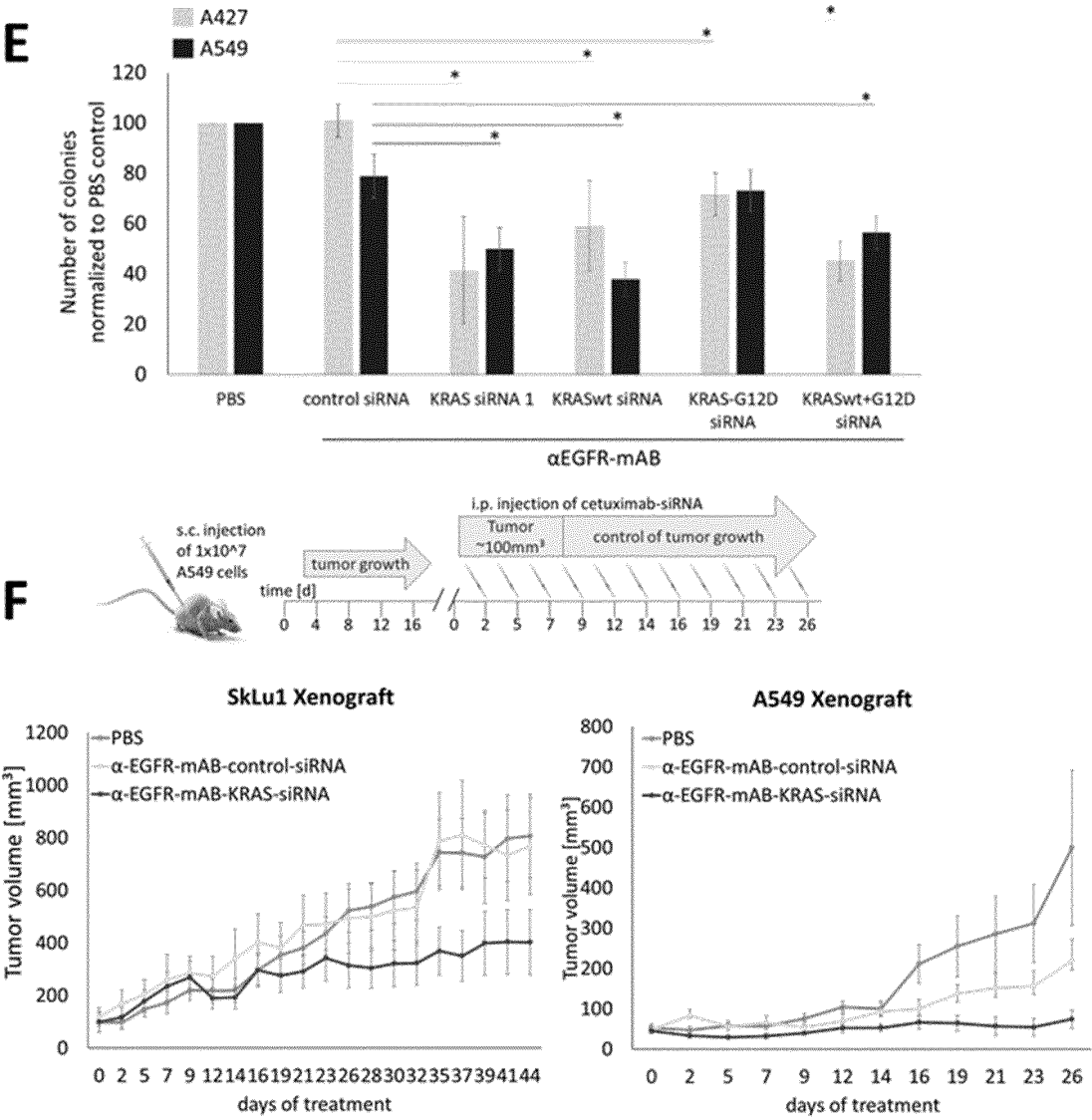


Figure 3 (cont'd)

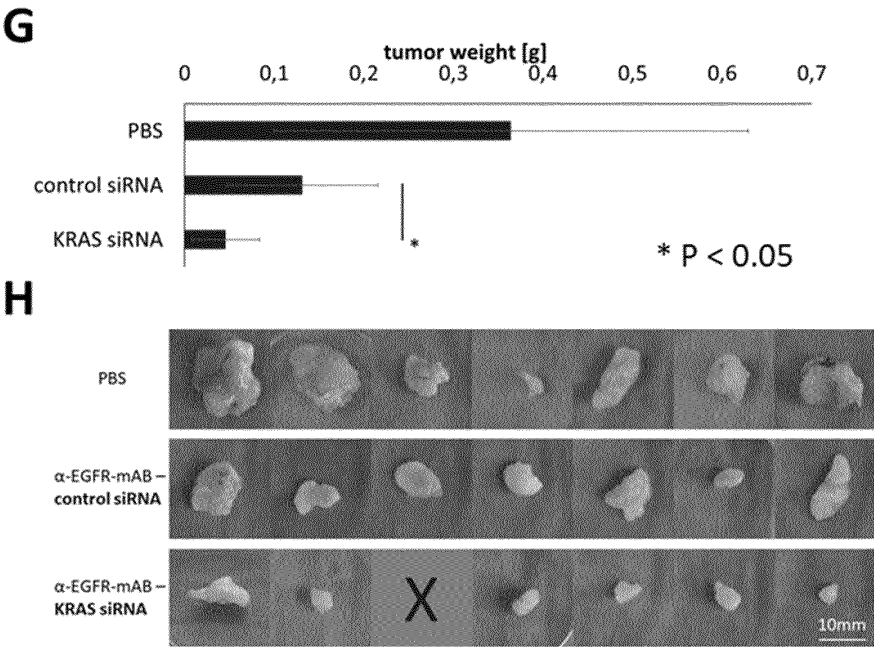


Figure 4

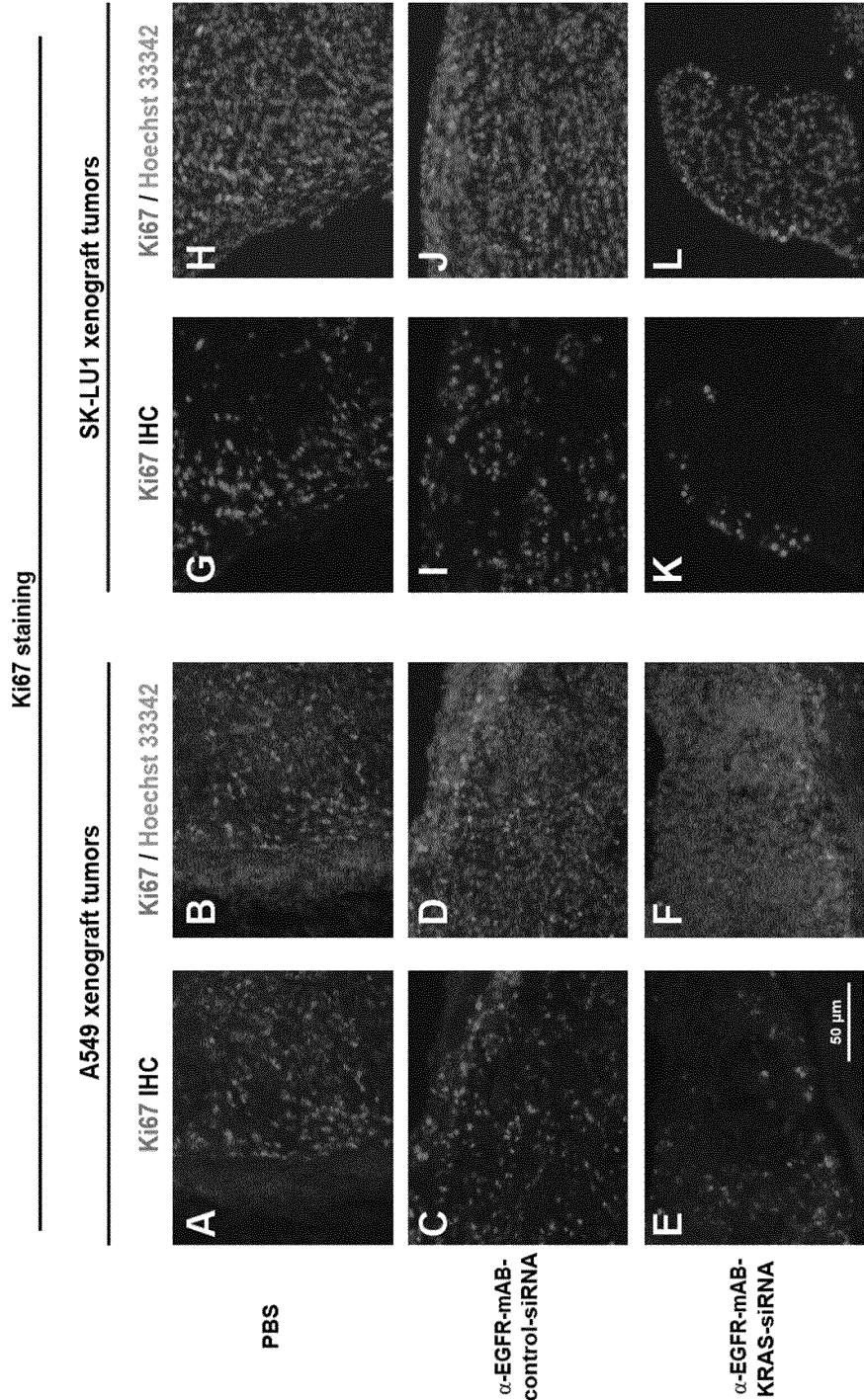


Figure 5

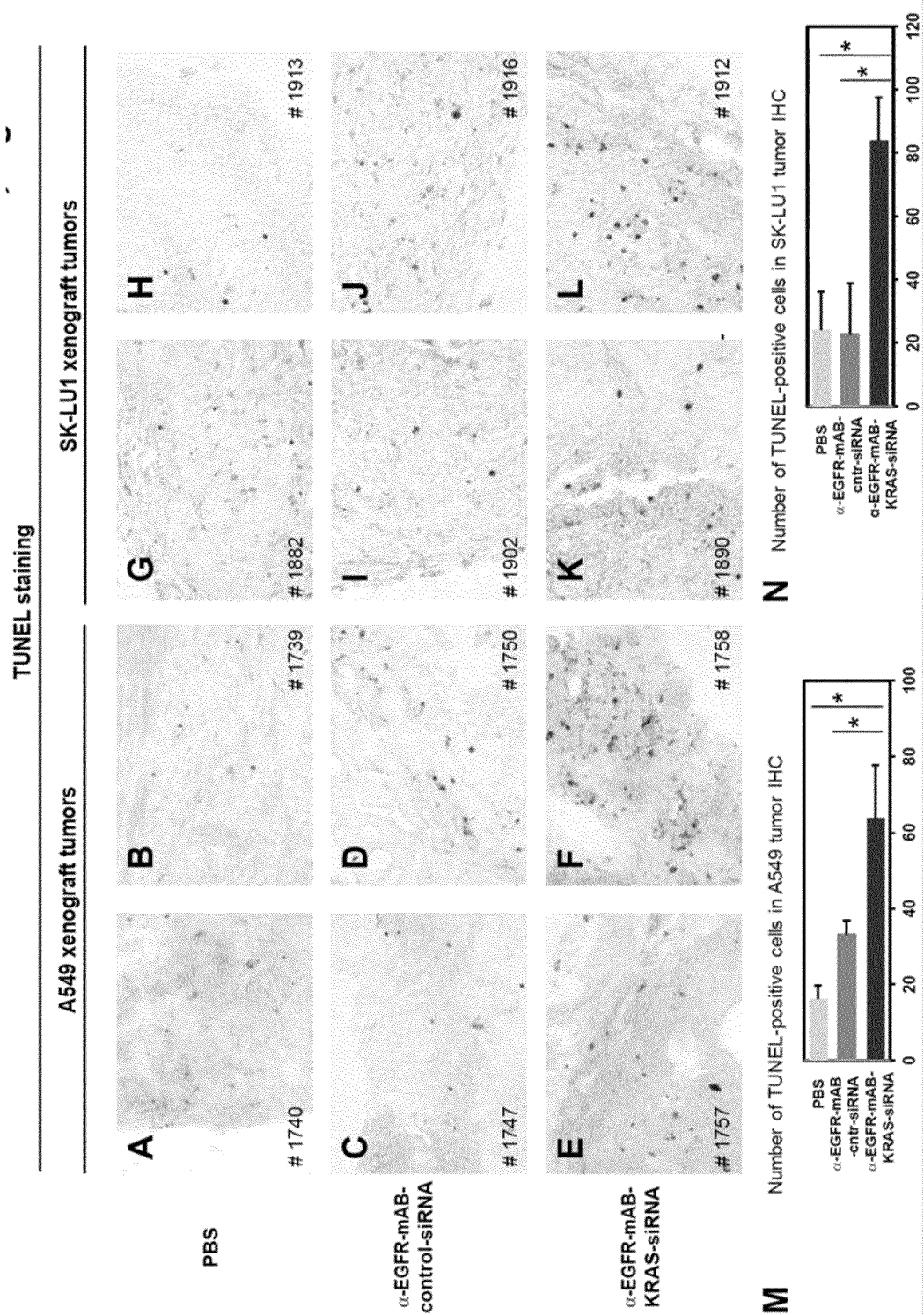


Figure 6

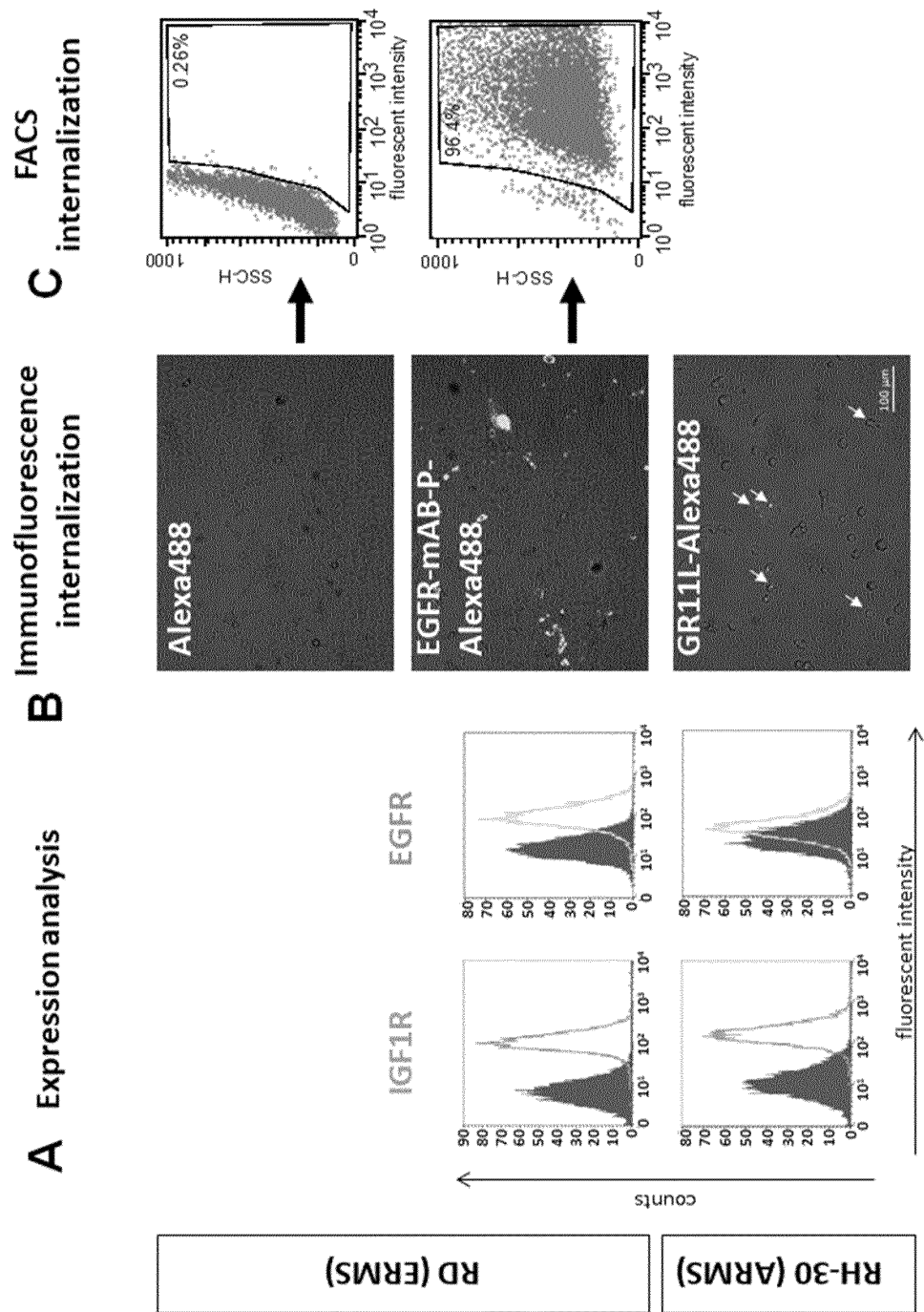


Figure 7

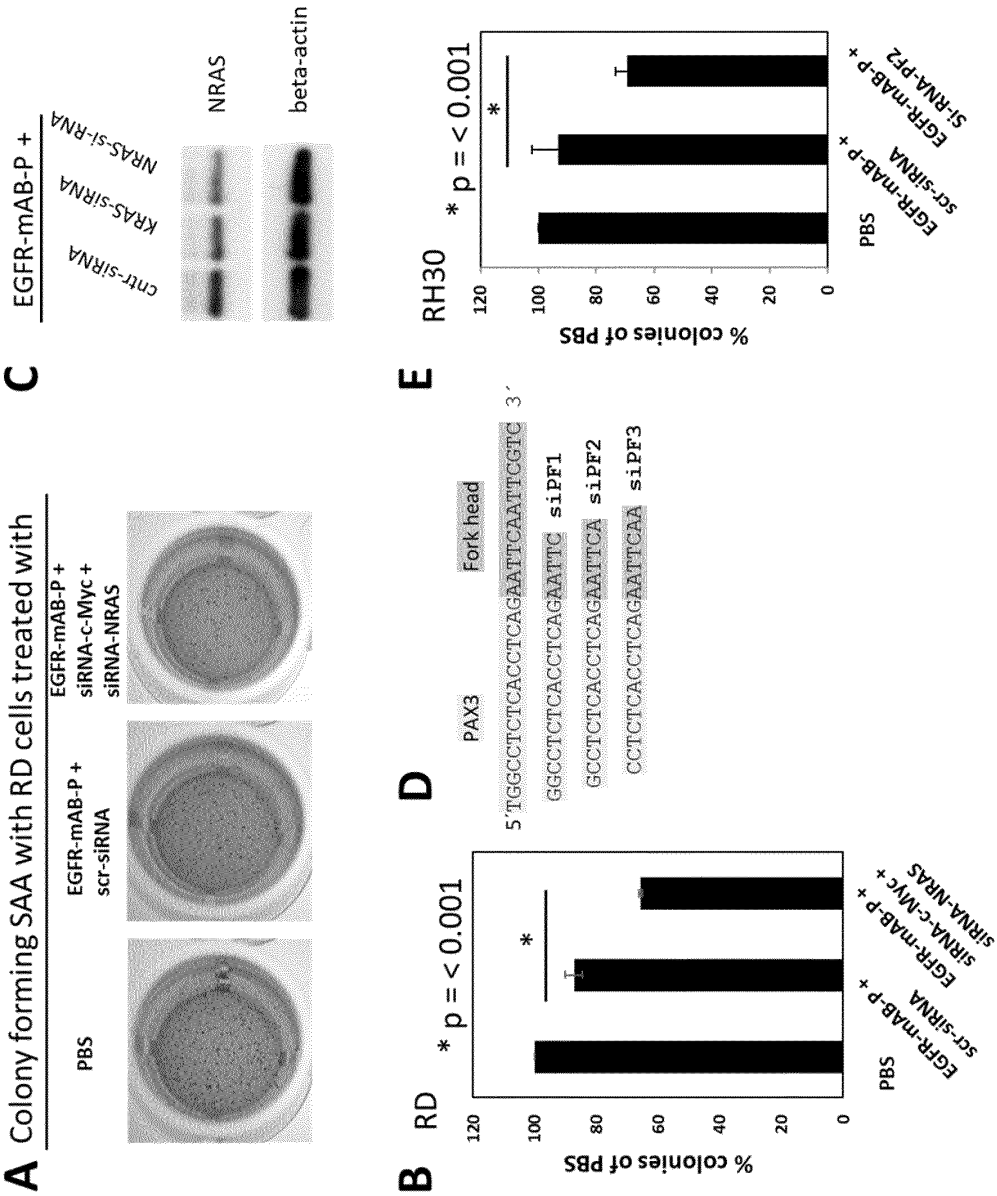


Figure 8

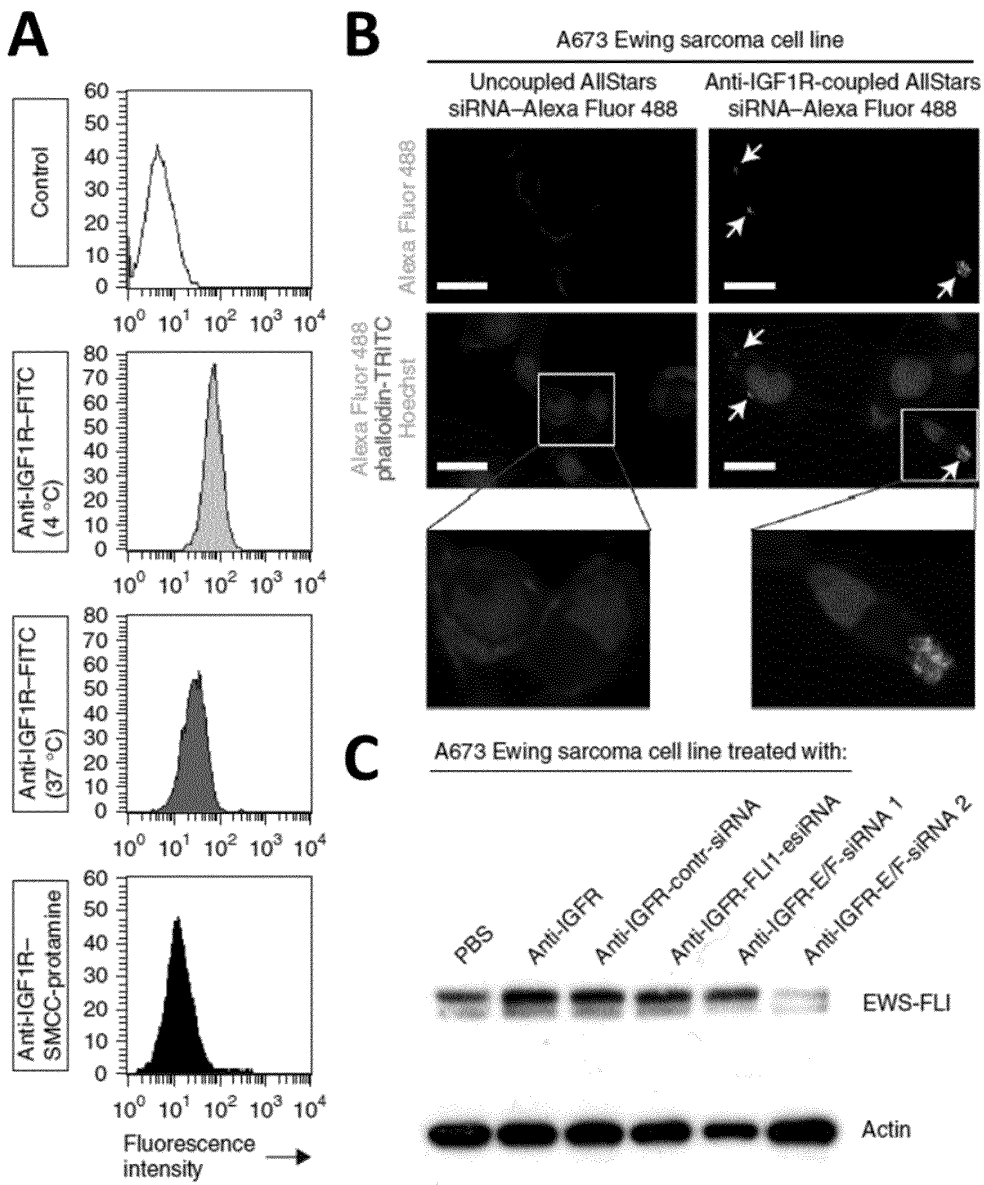


Figure 9

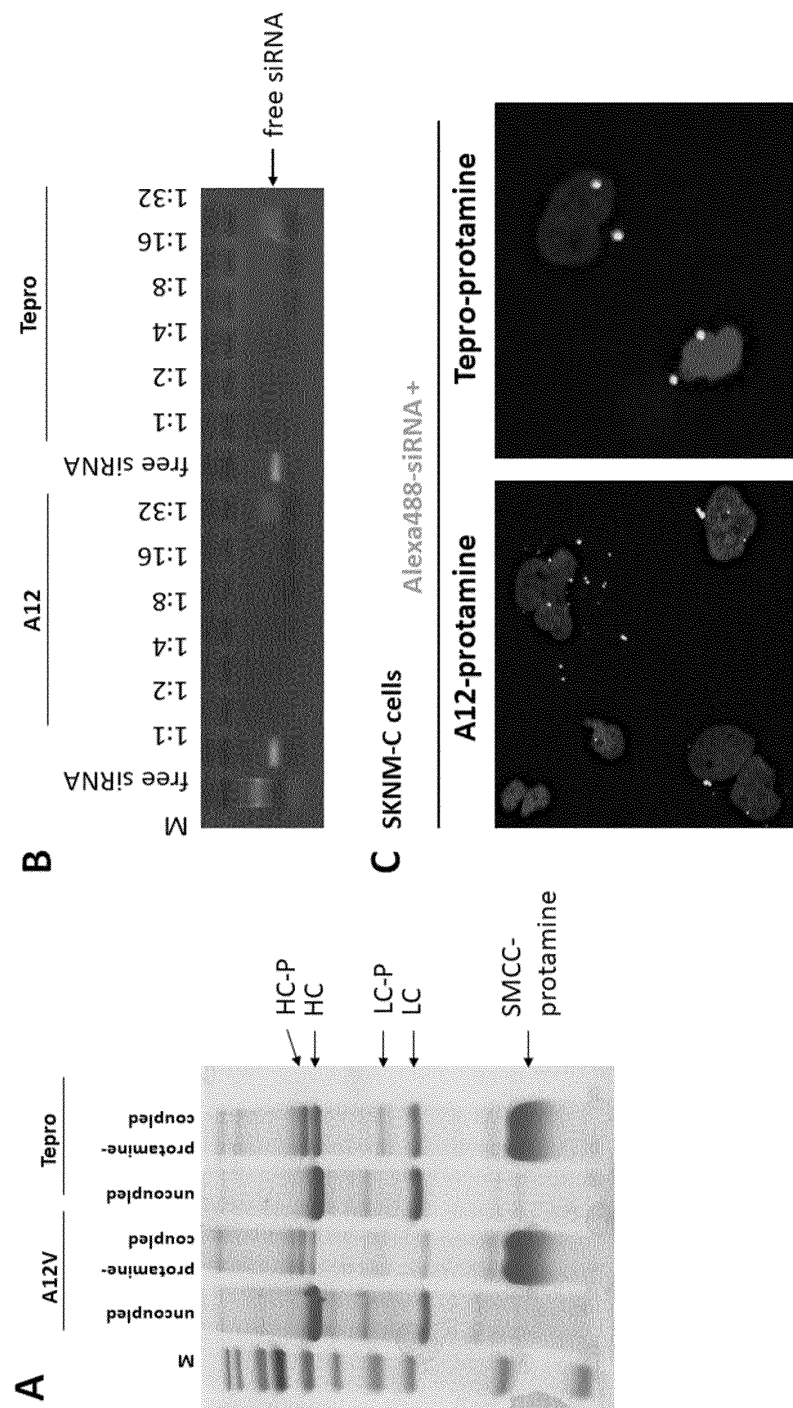


Figure 10

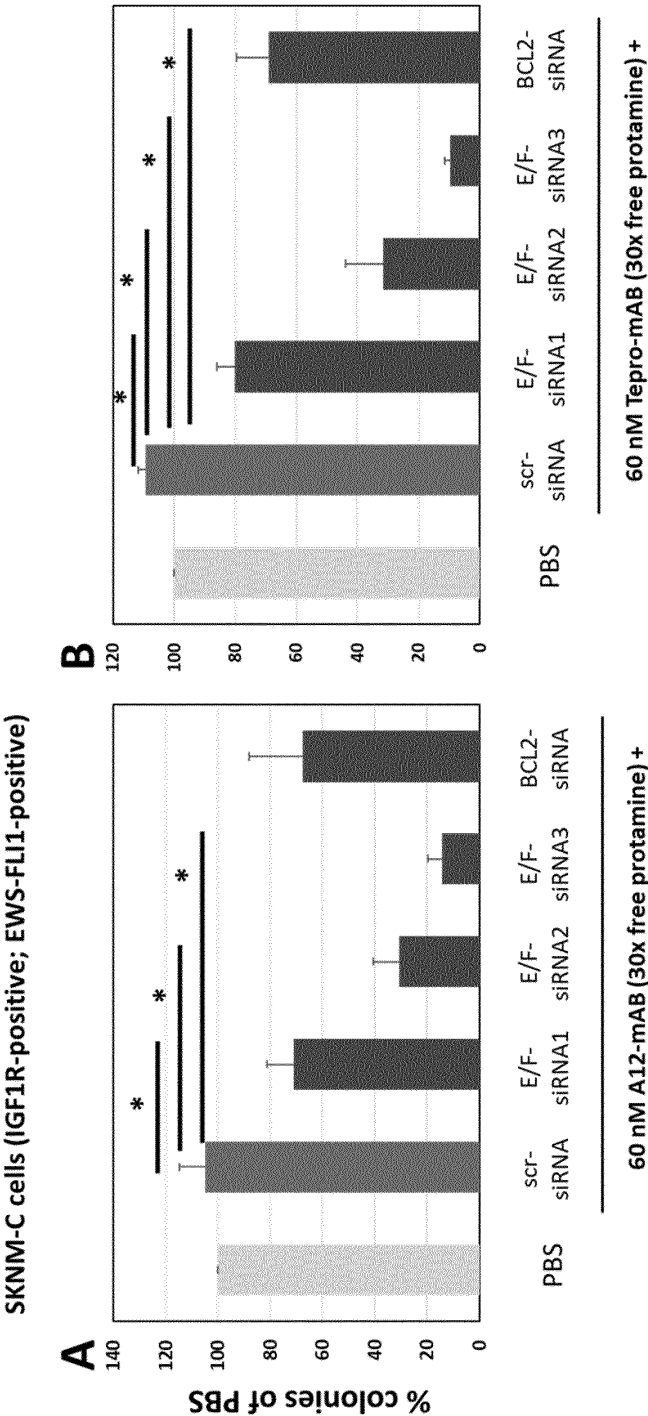


Figure 11

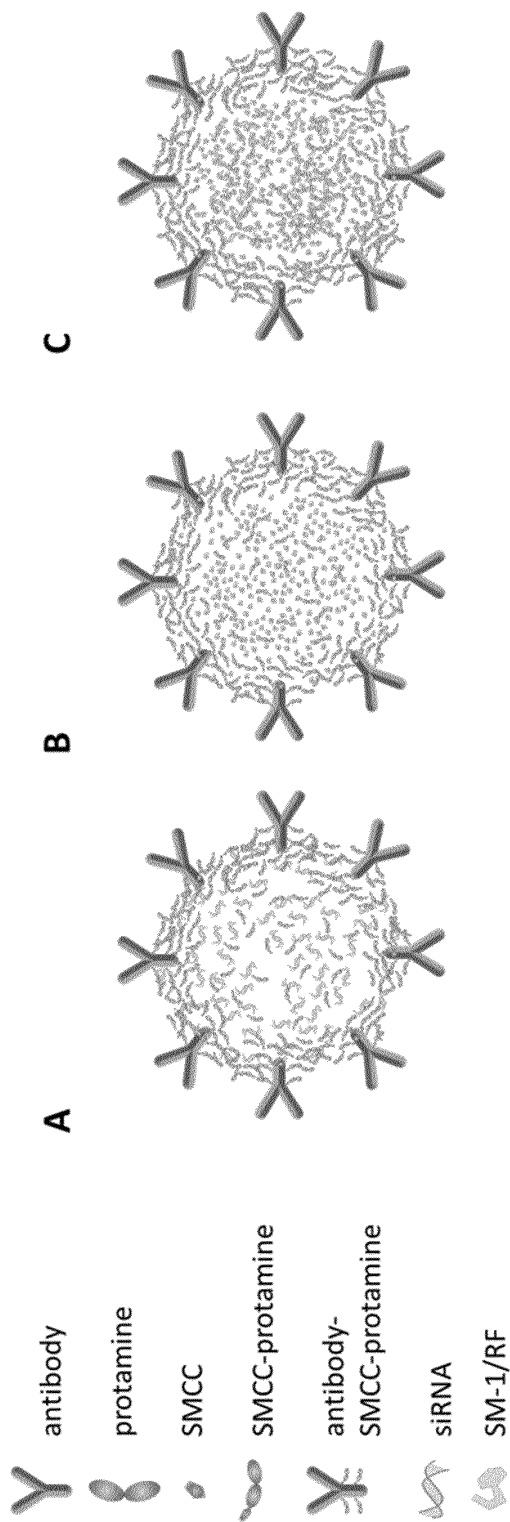


Figure 12

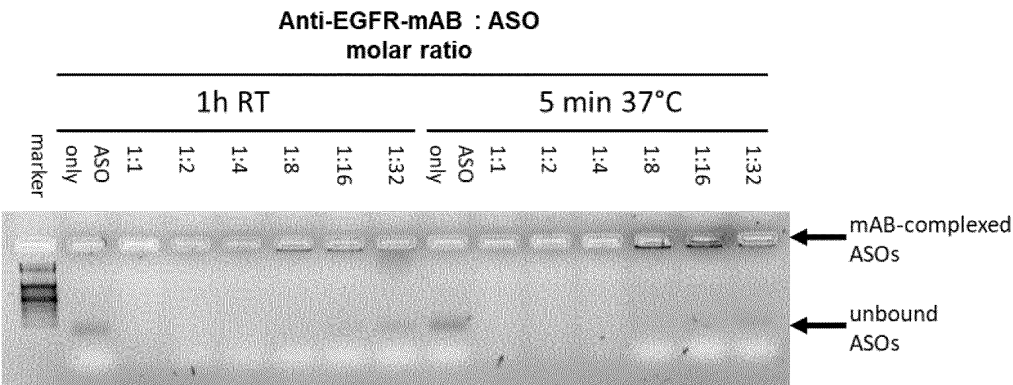


Figure 13

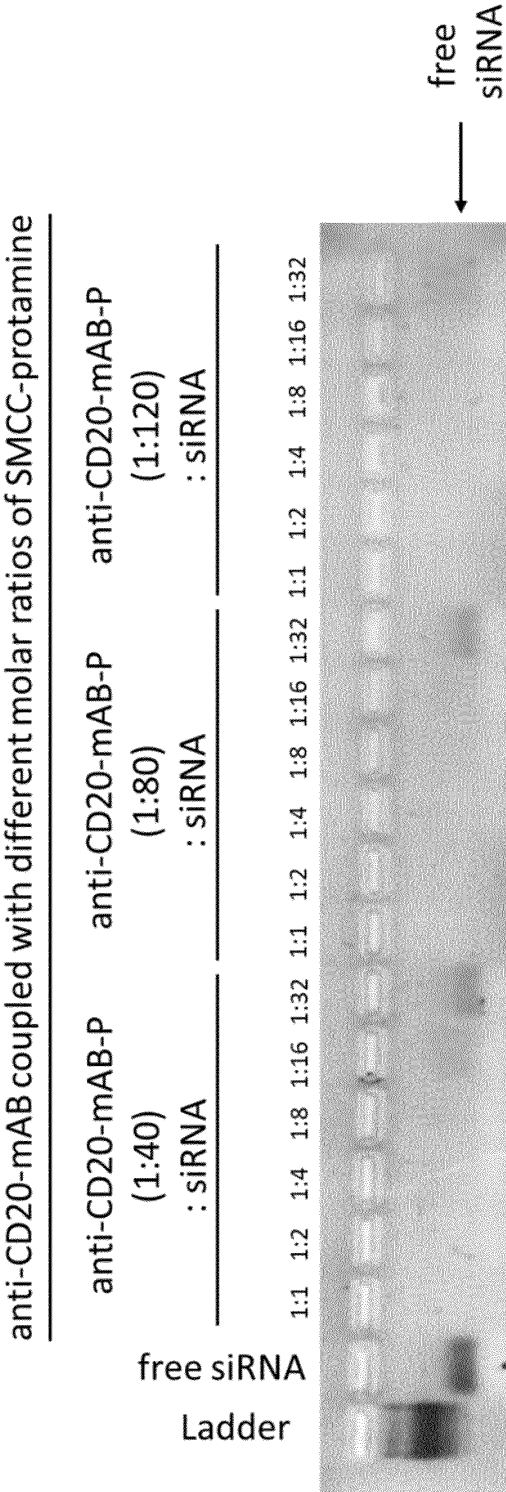


Figure 14

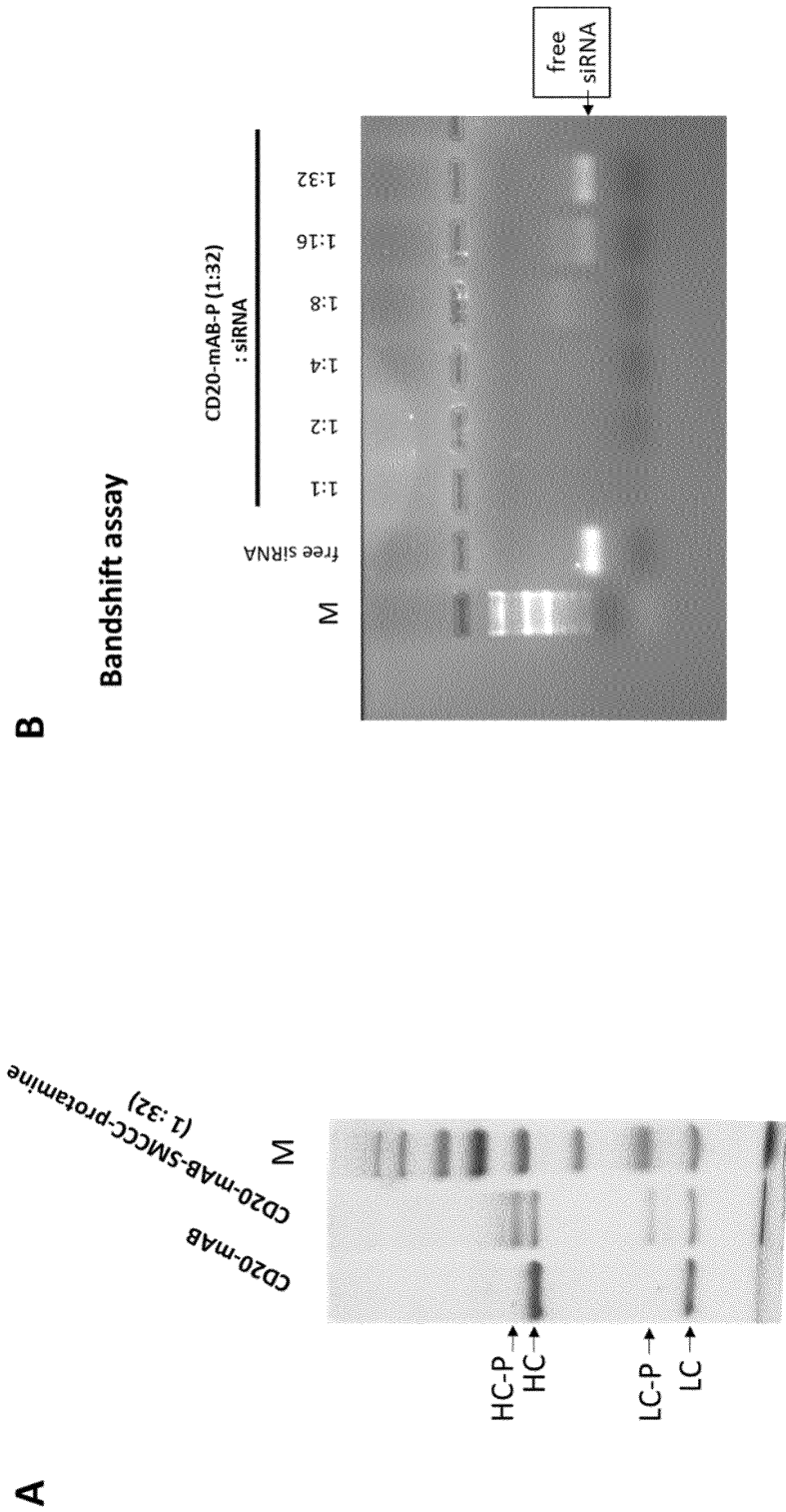


Figure 15

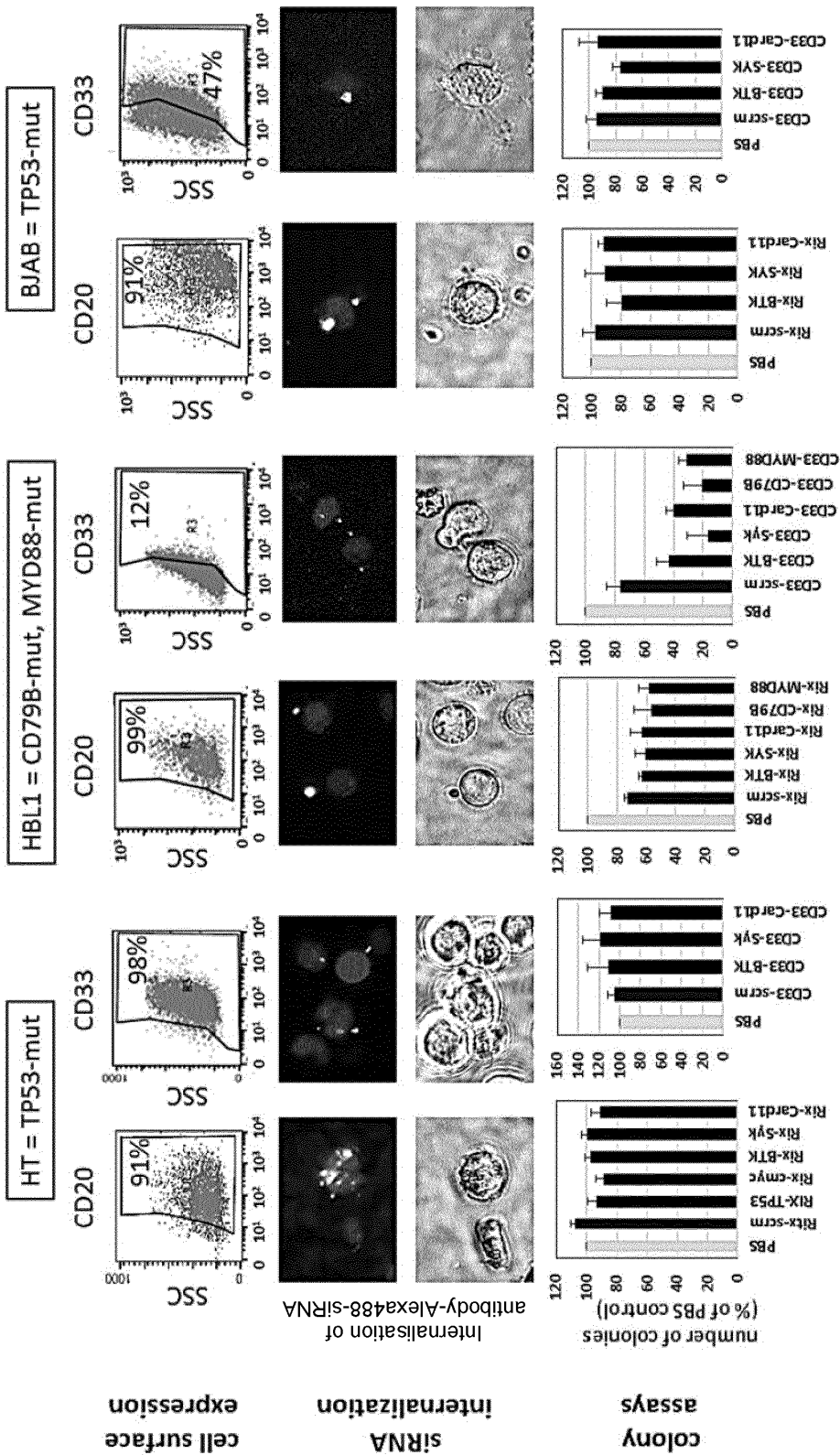


Figure 16

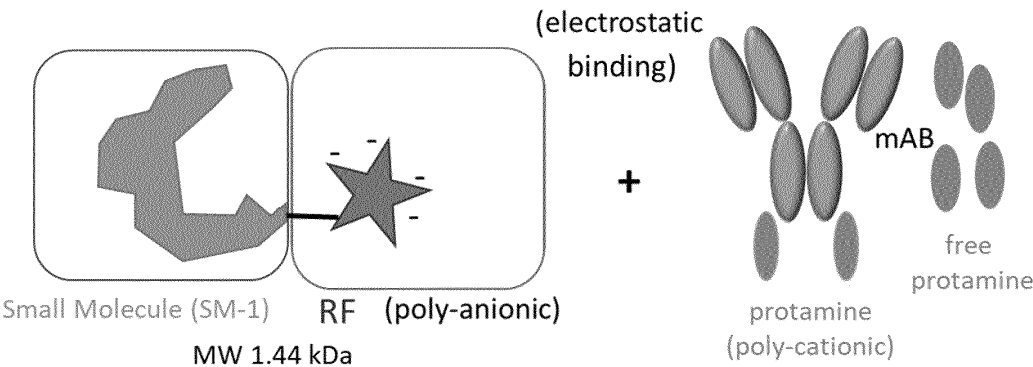


Figure 17

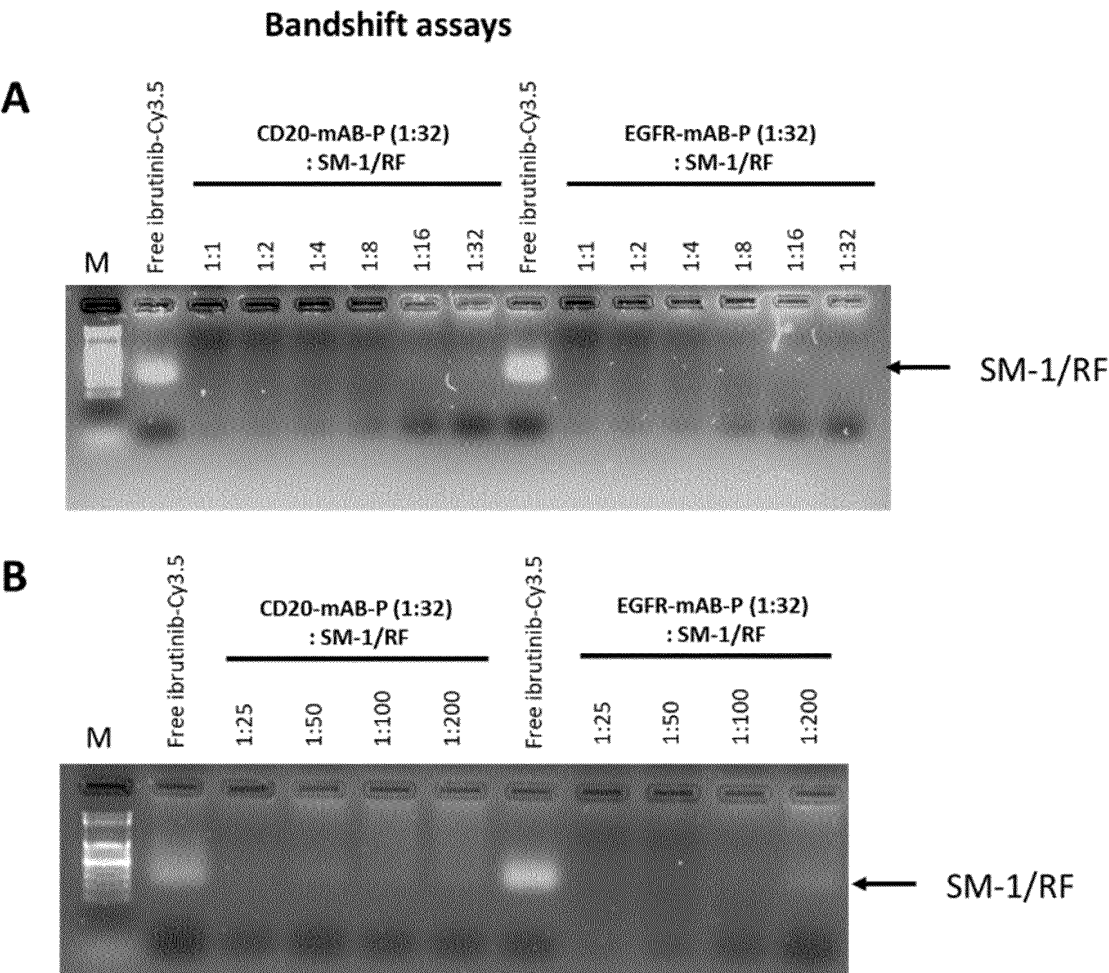


Figure 18

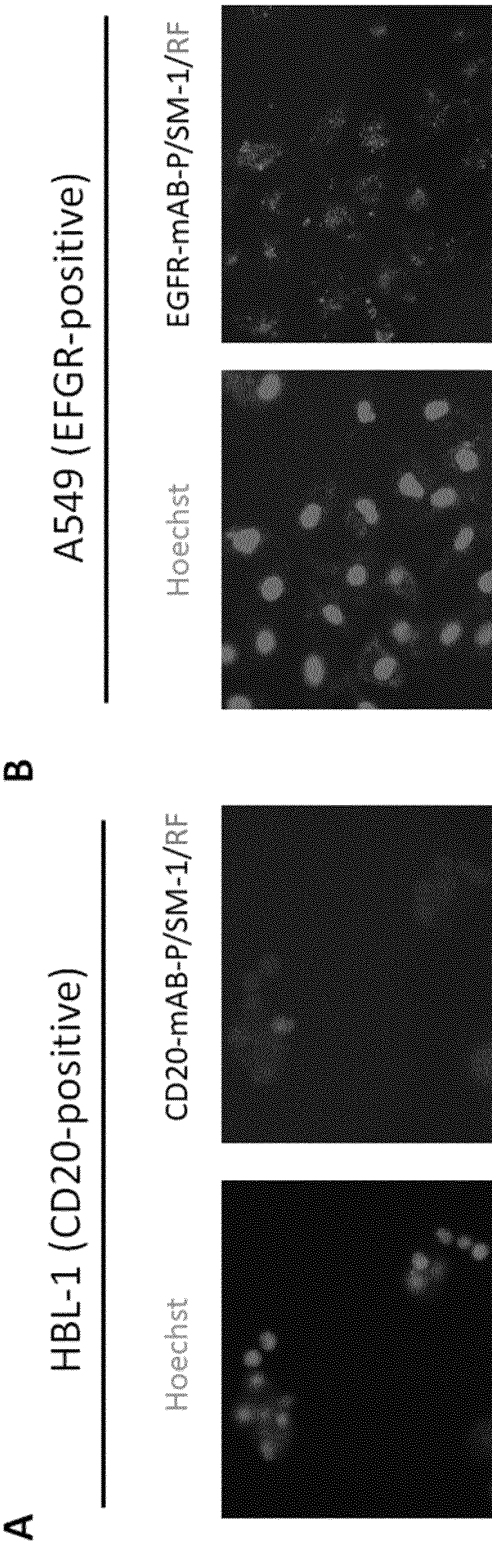


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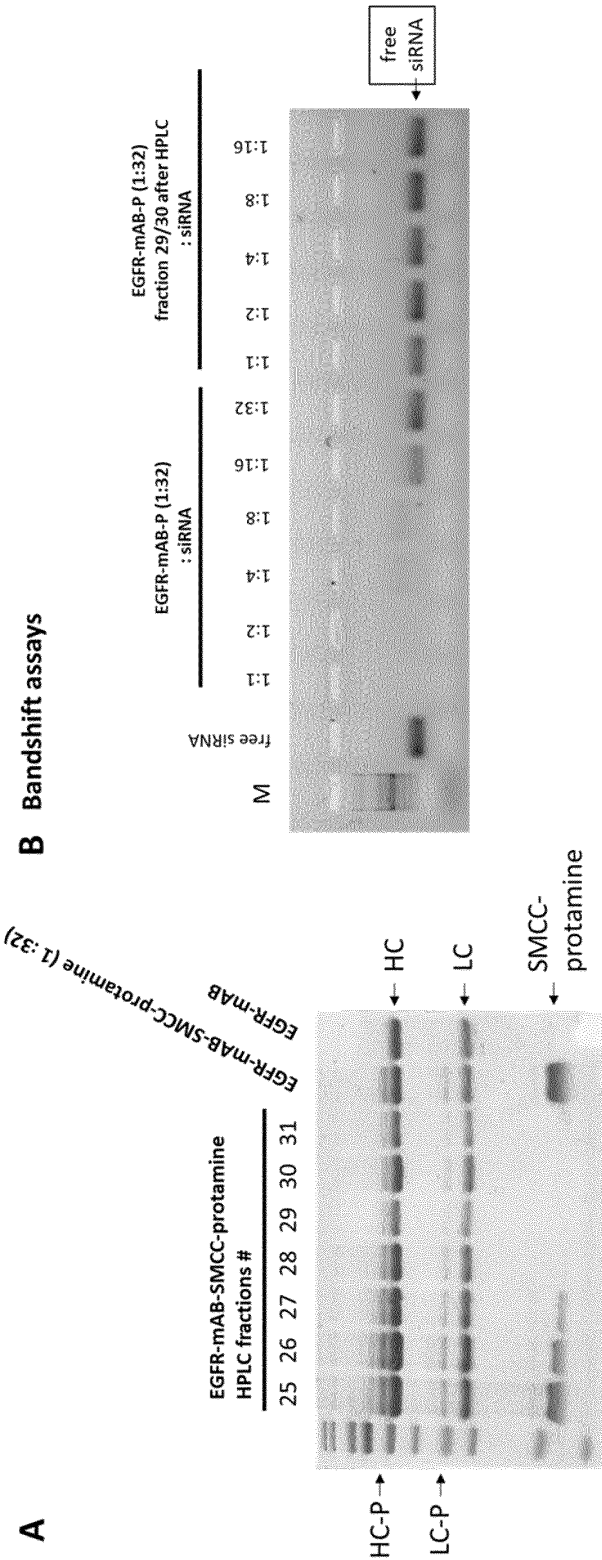


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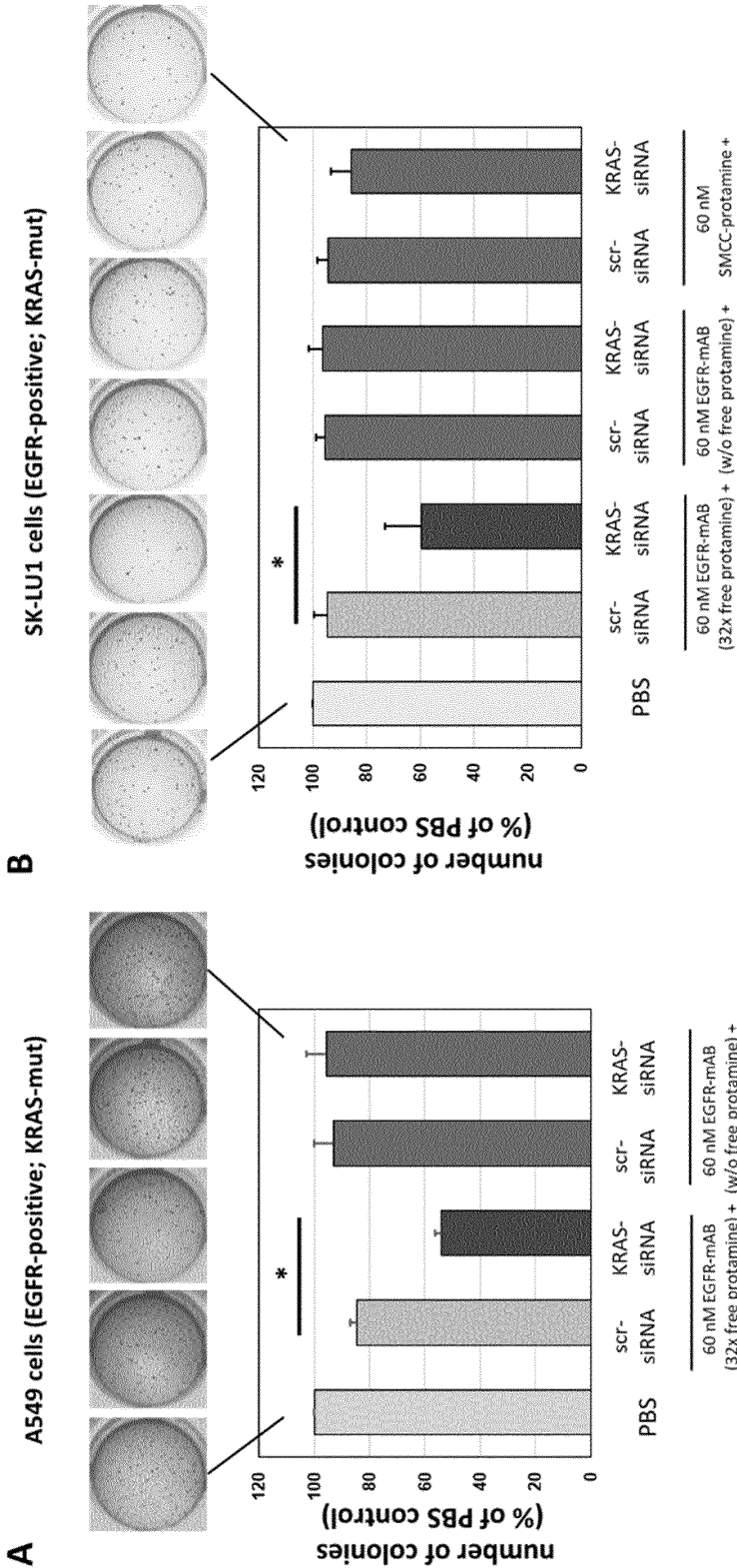


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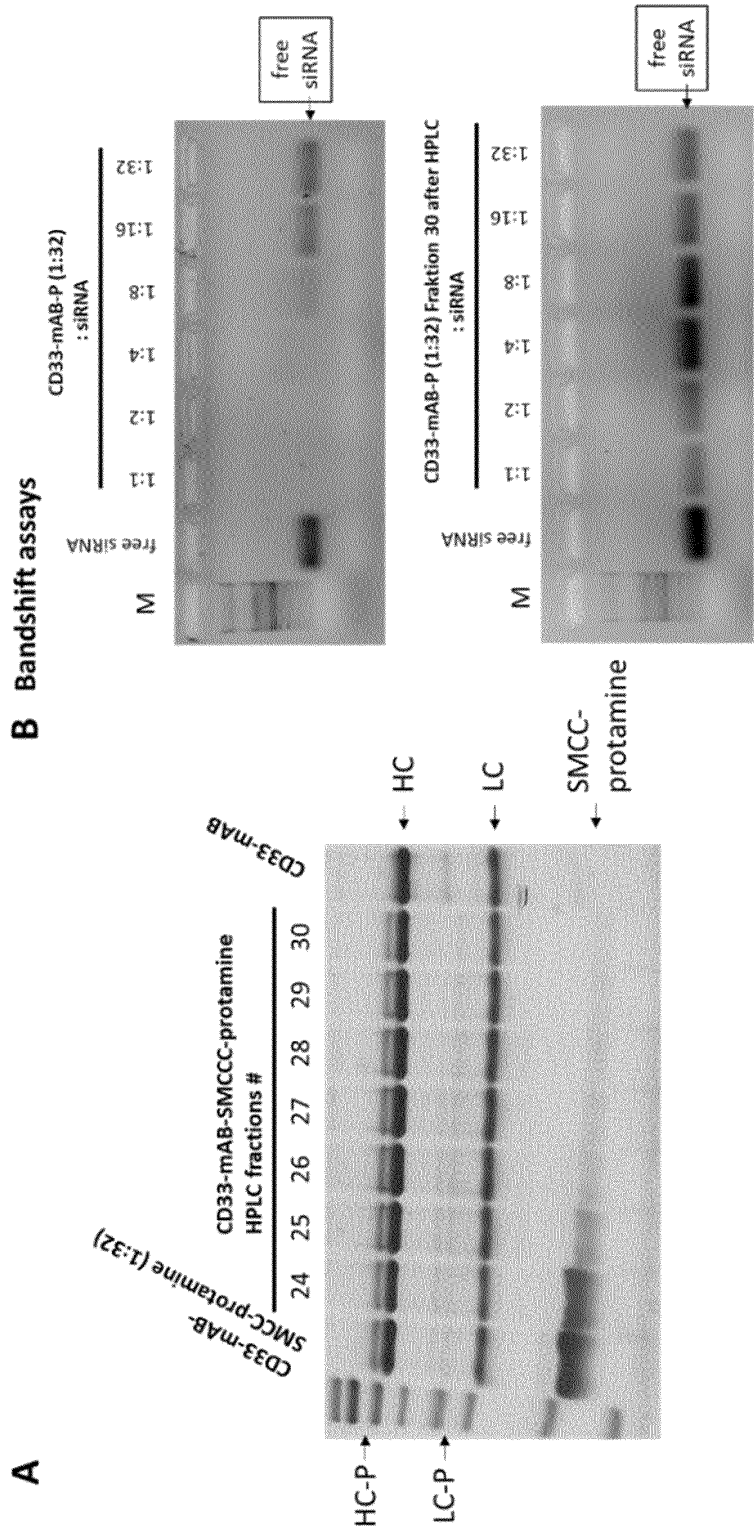


Figure 21 (cont'd)

C

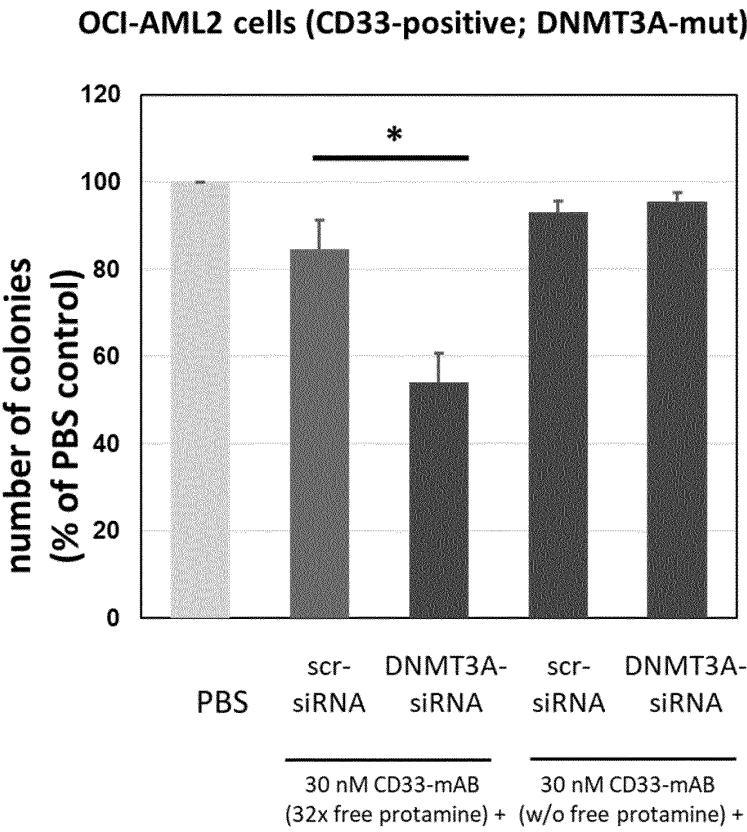
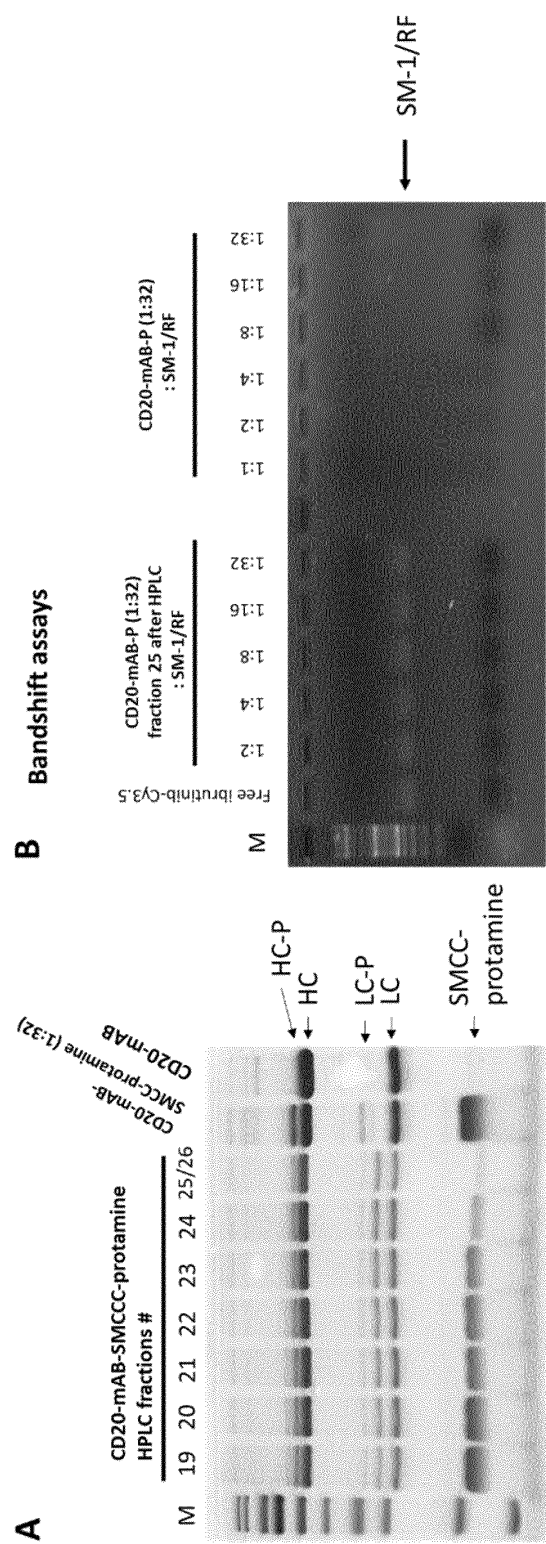


Figure 22



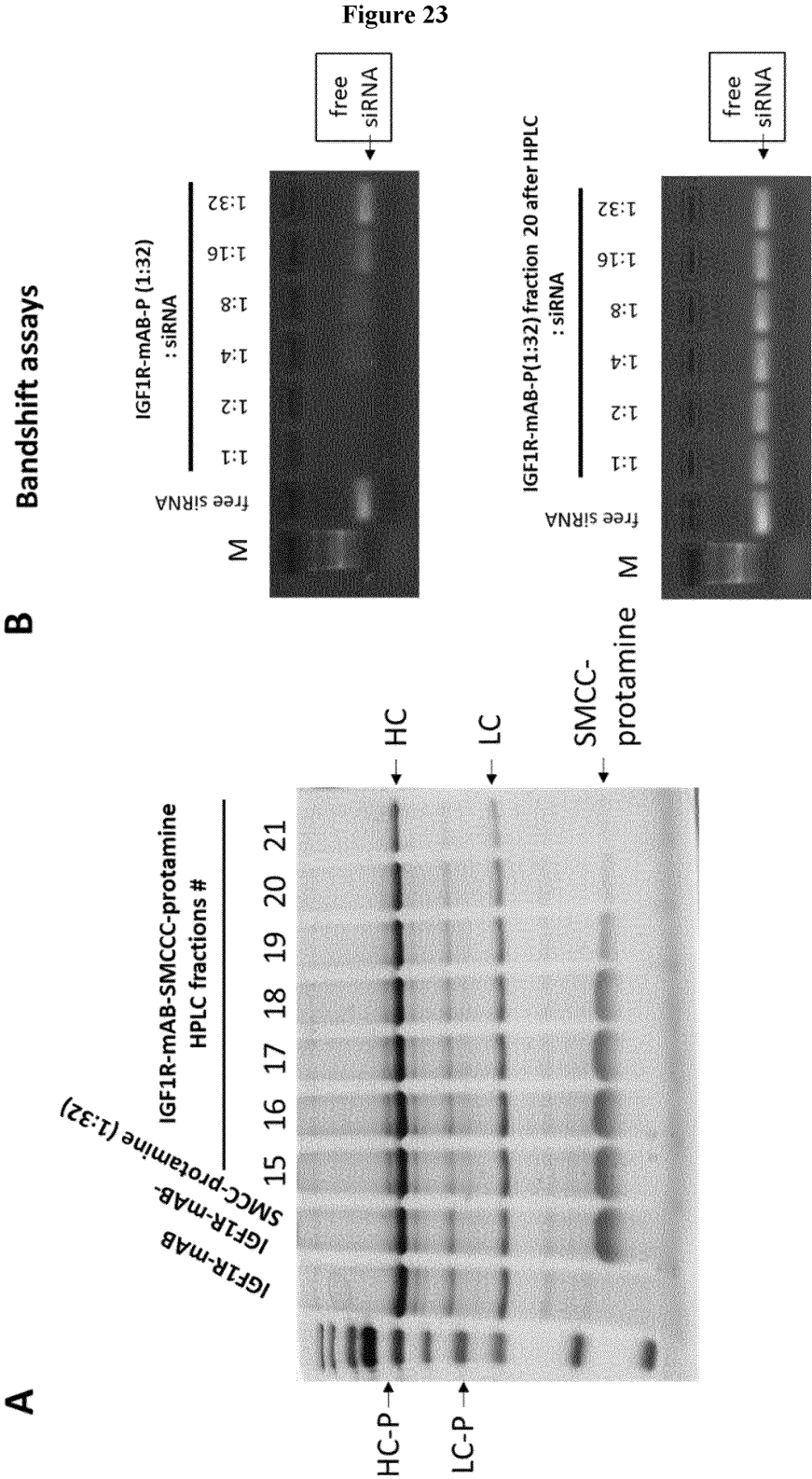


Figure 24

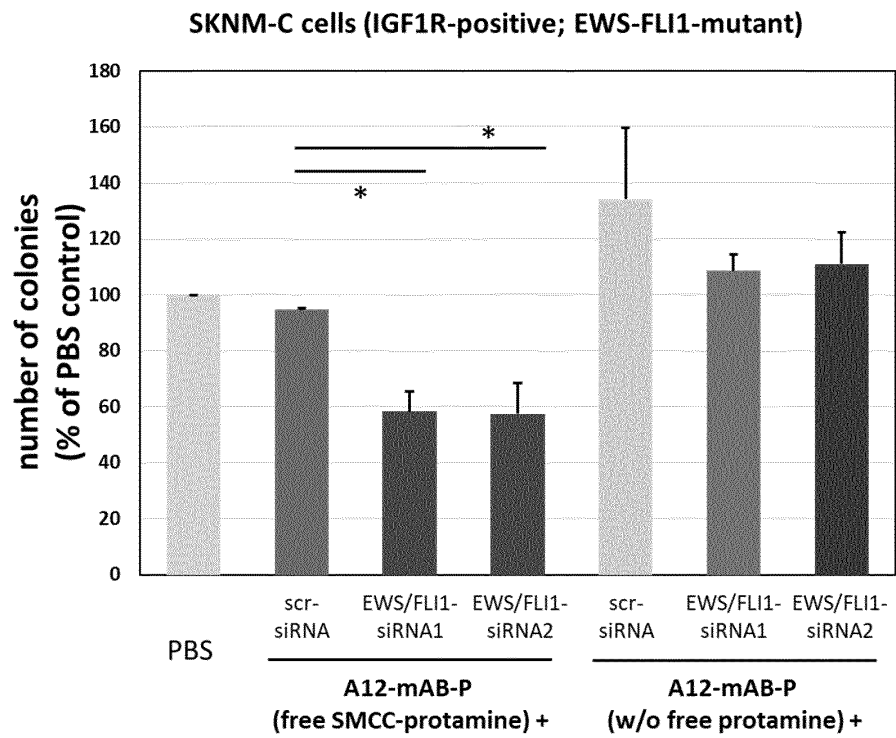


Figure 25

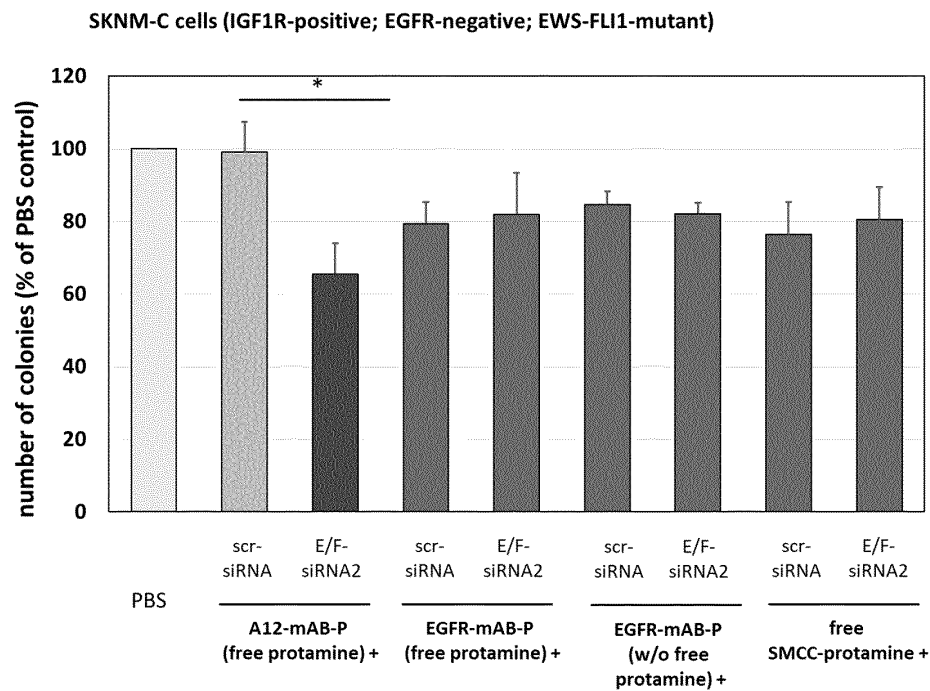


Figure 26

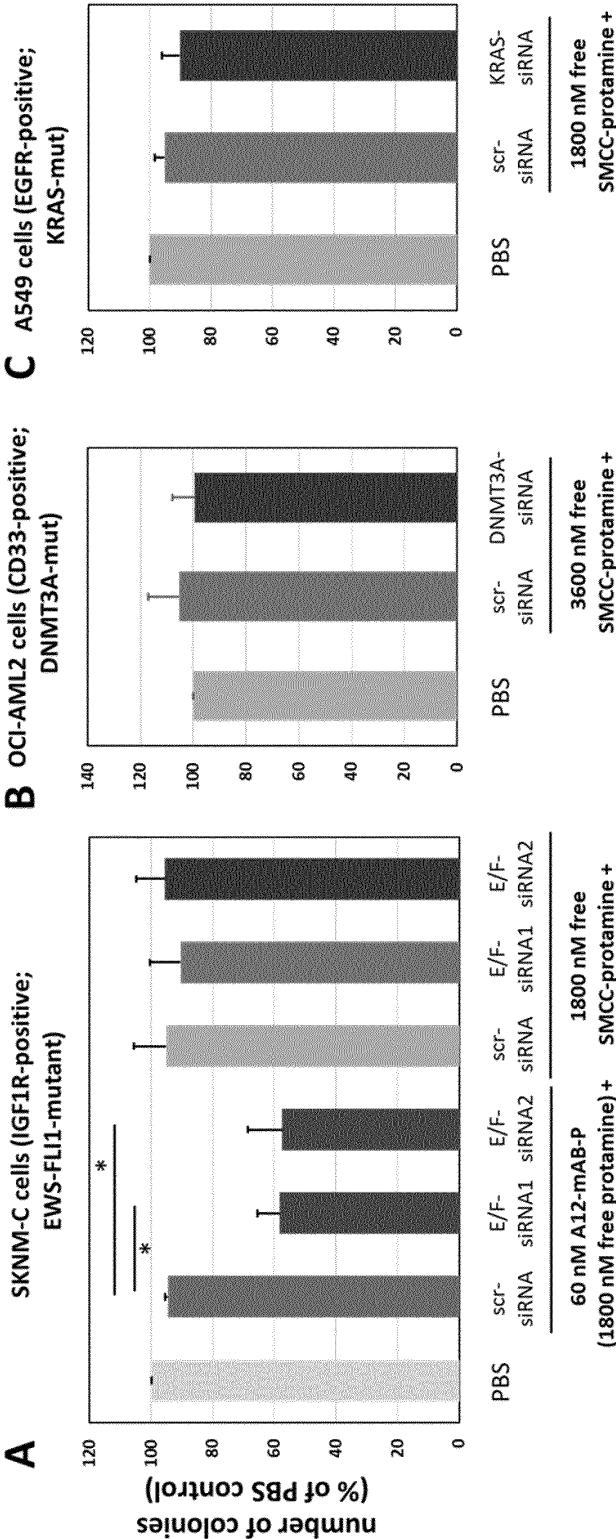


Figure 27

A549 cells

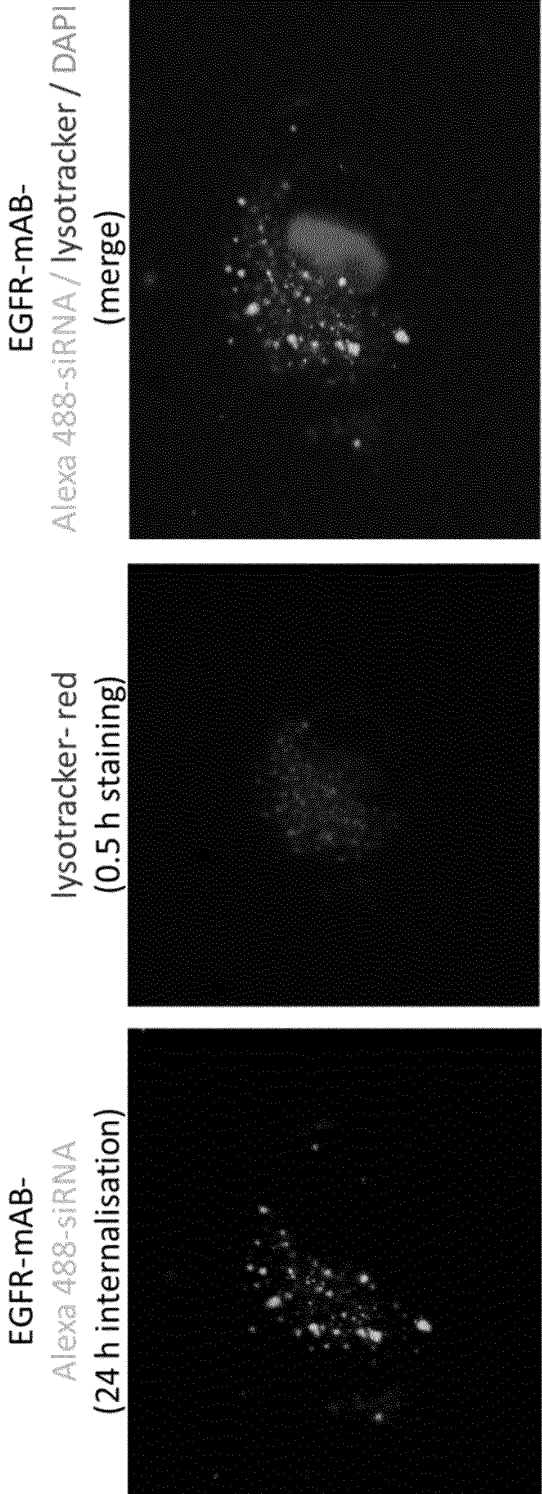


Figure 28

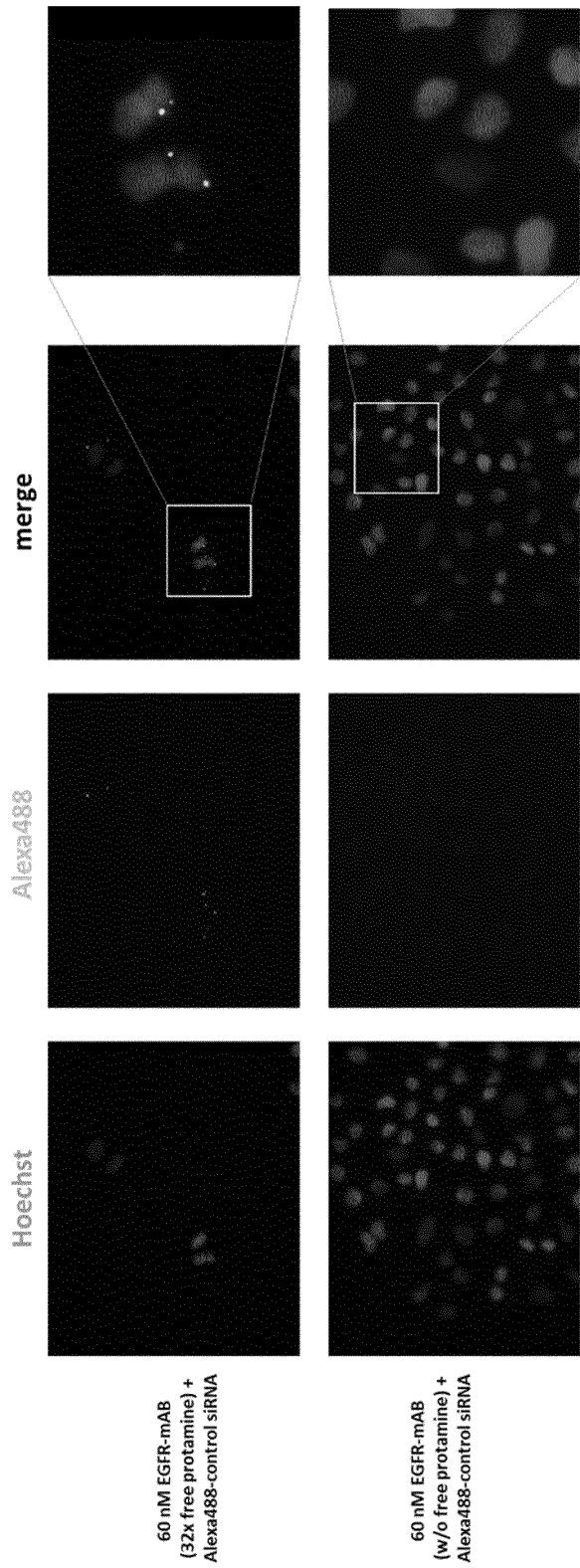


Figure 29

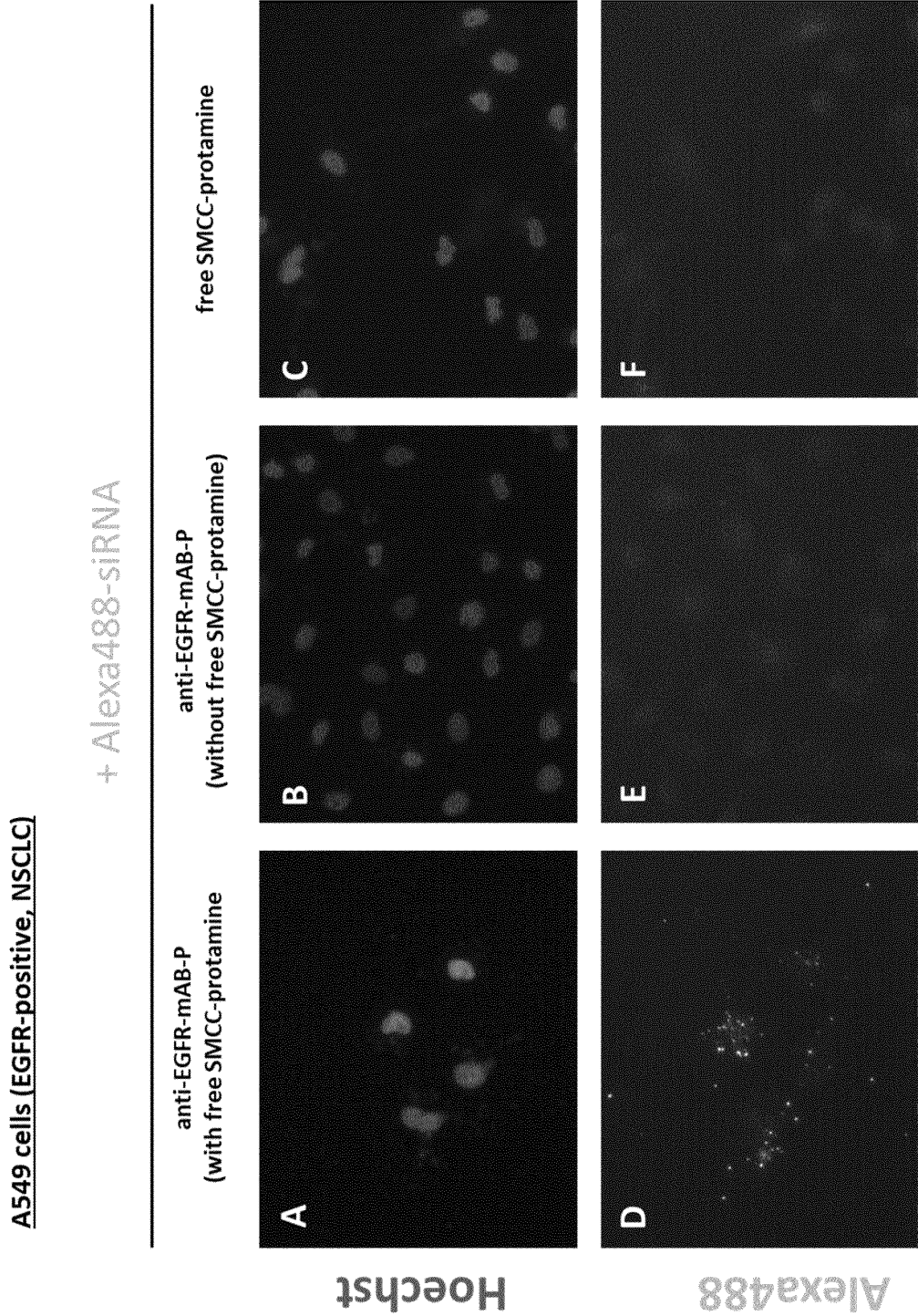


Figure 30

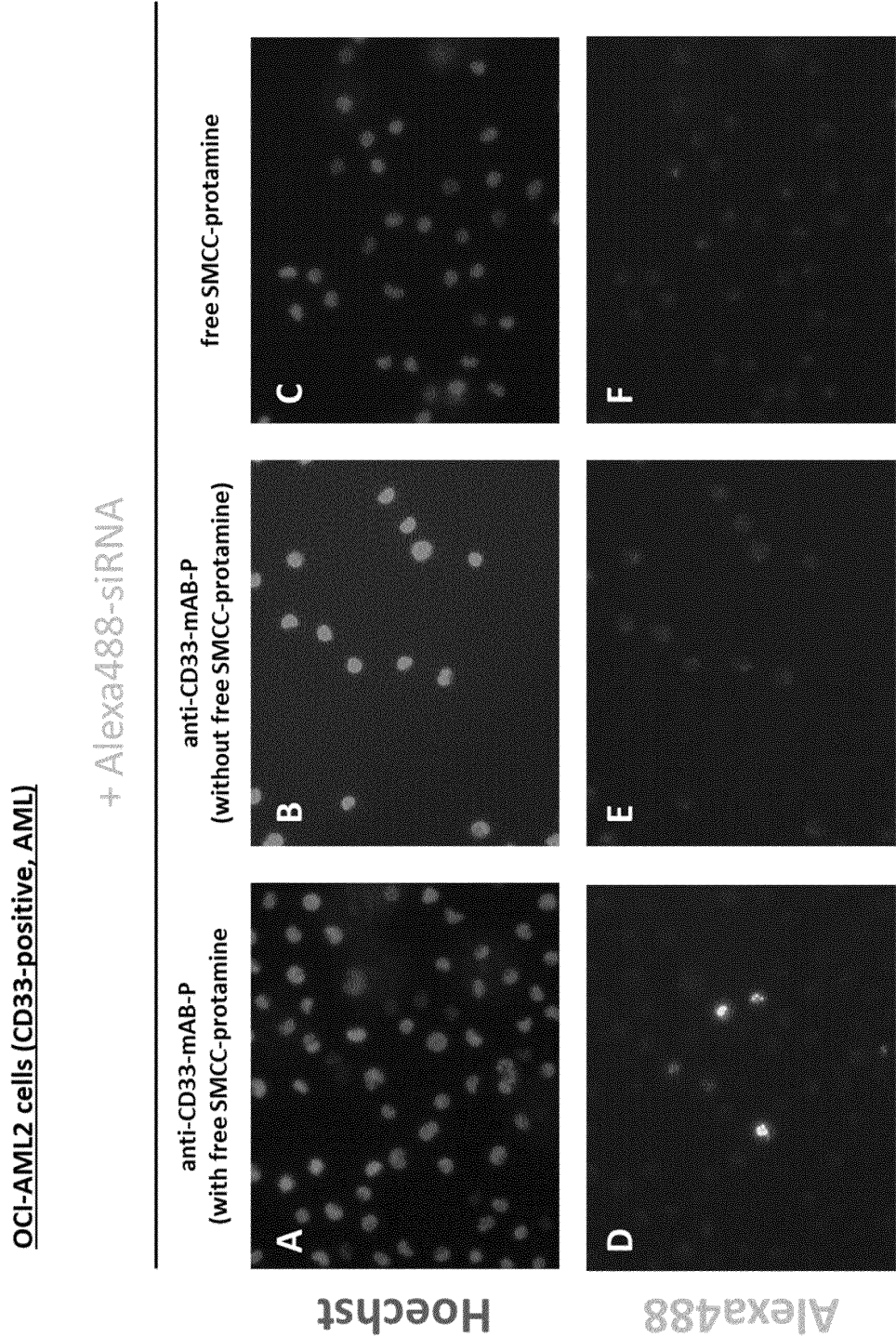
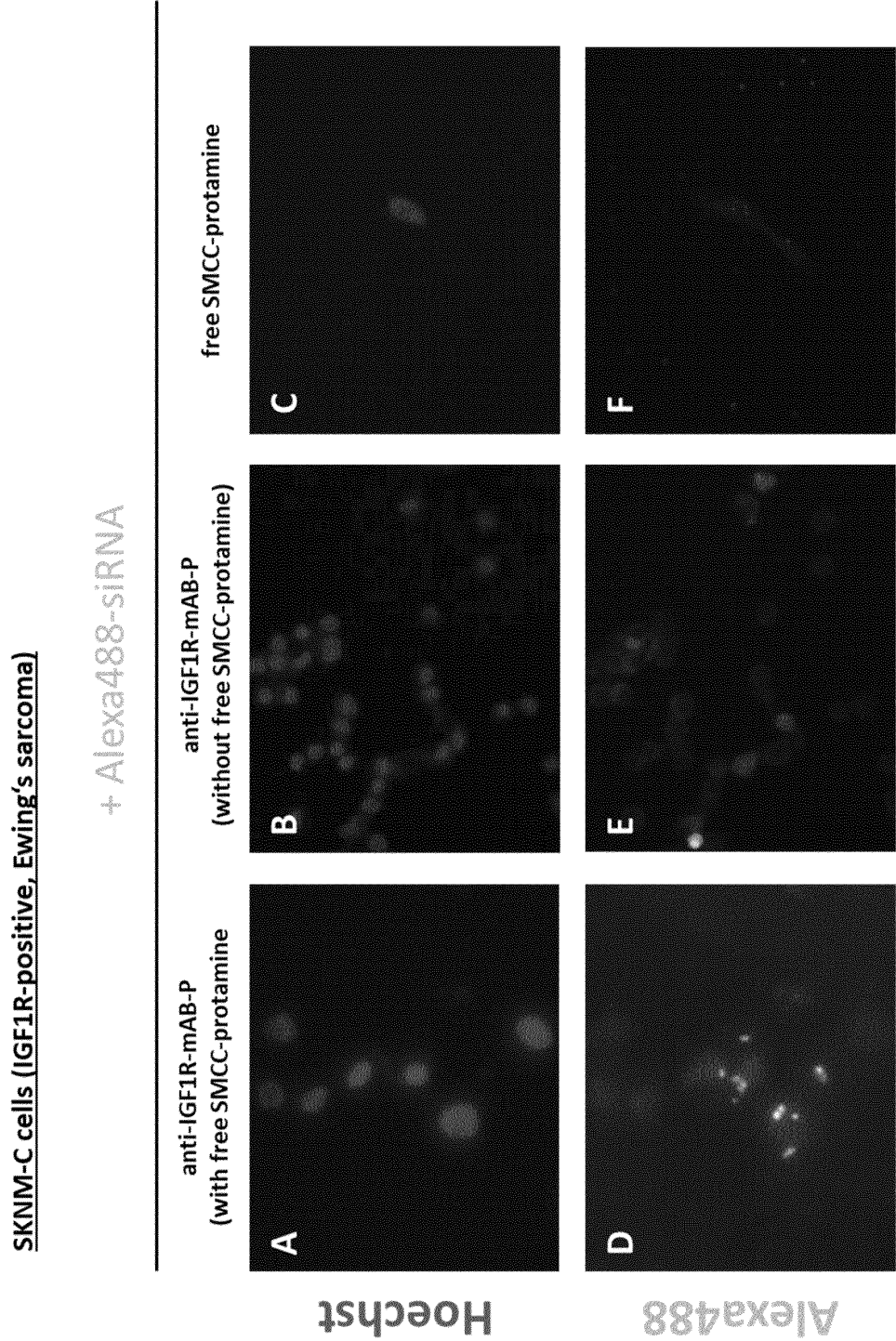


Figure 31



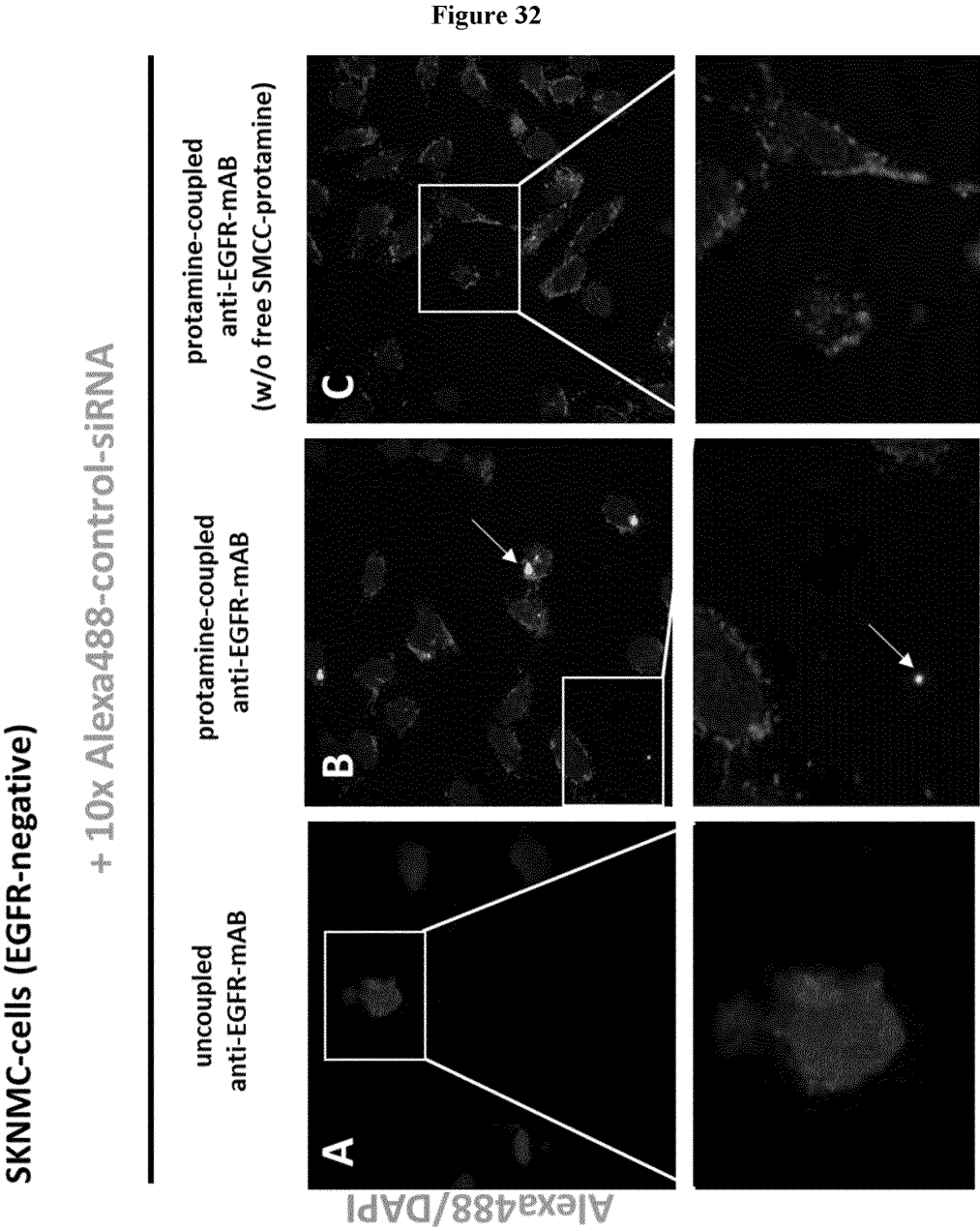


Figure 33

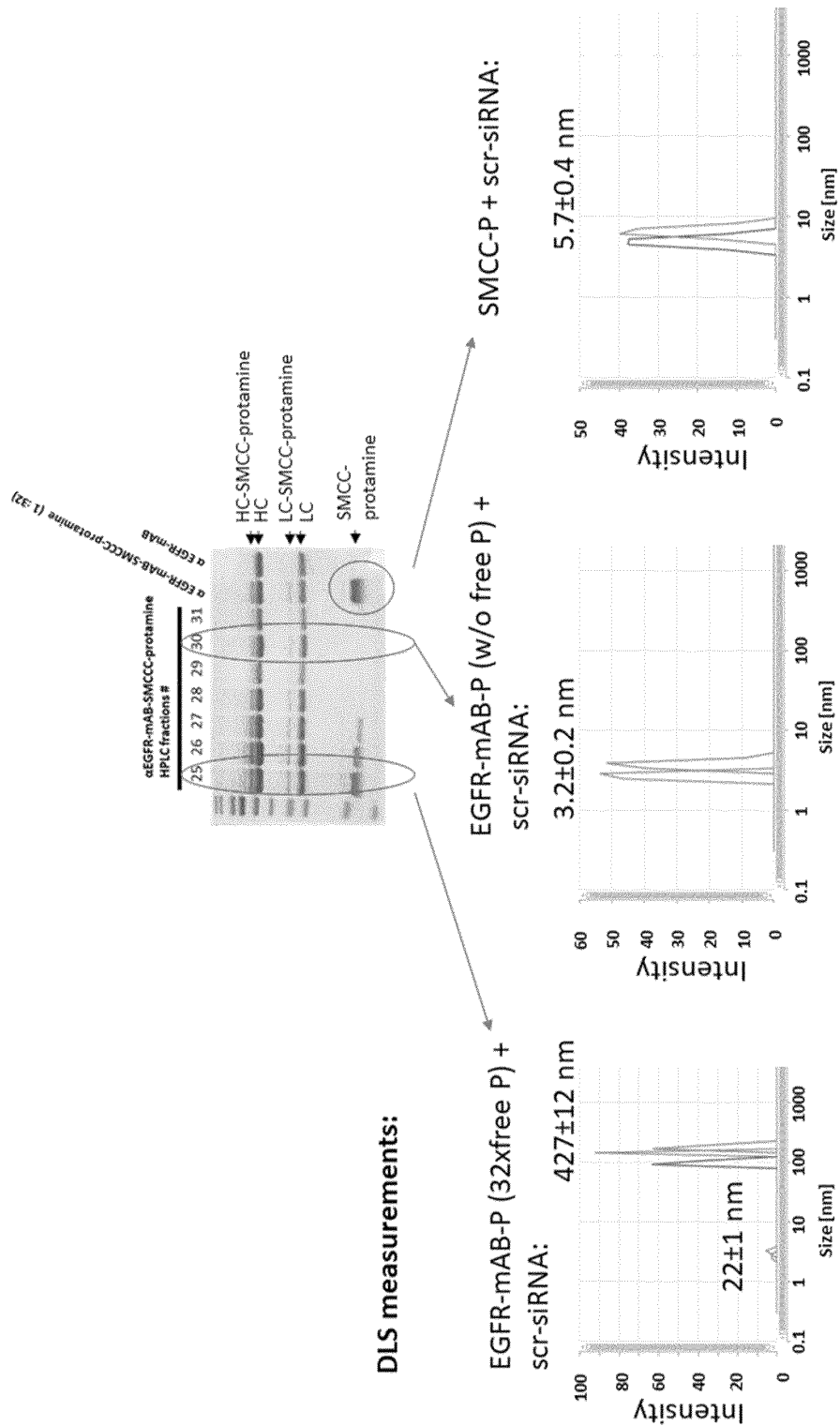


Figure 34

60 nM EGFR-mAB (32x free protamine)-P + scr-siRNA

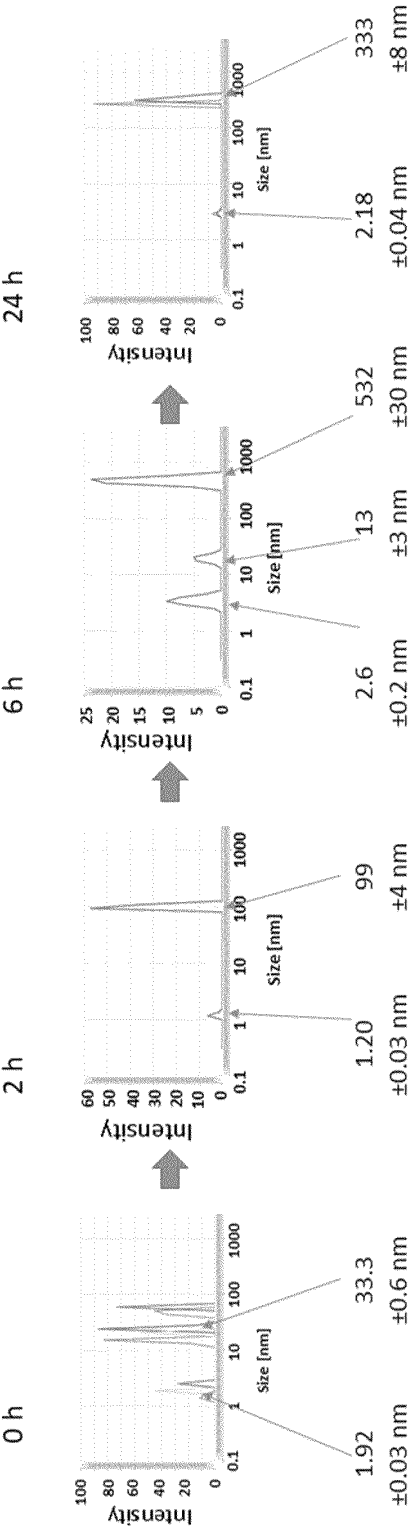


Figure 35

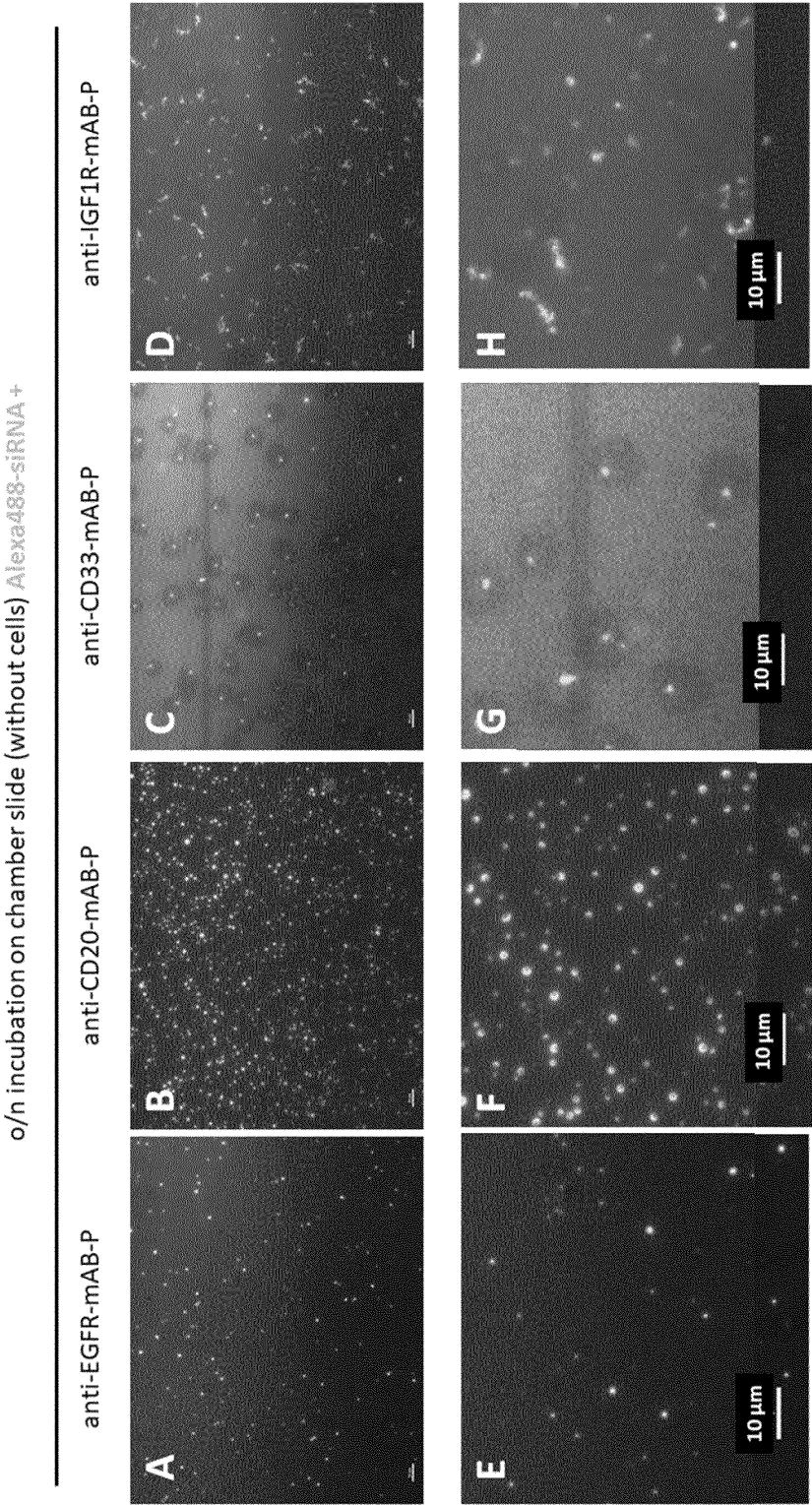


Figure 36

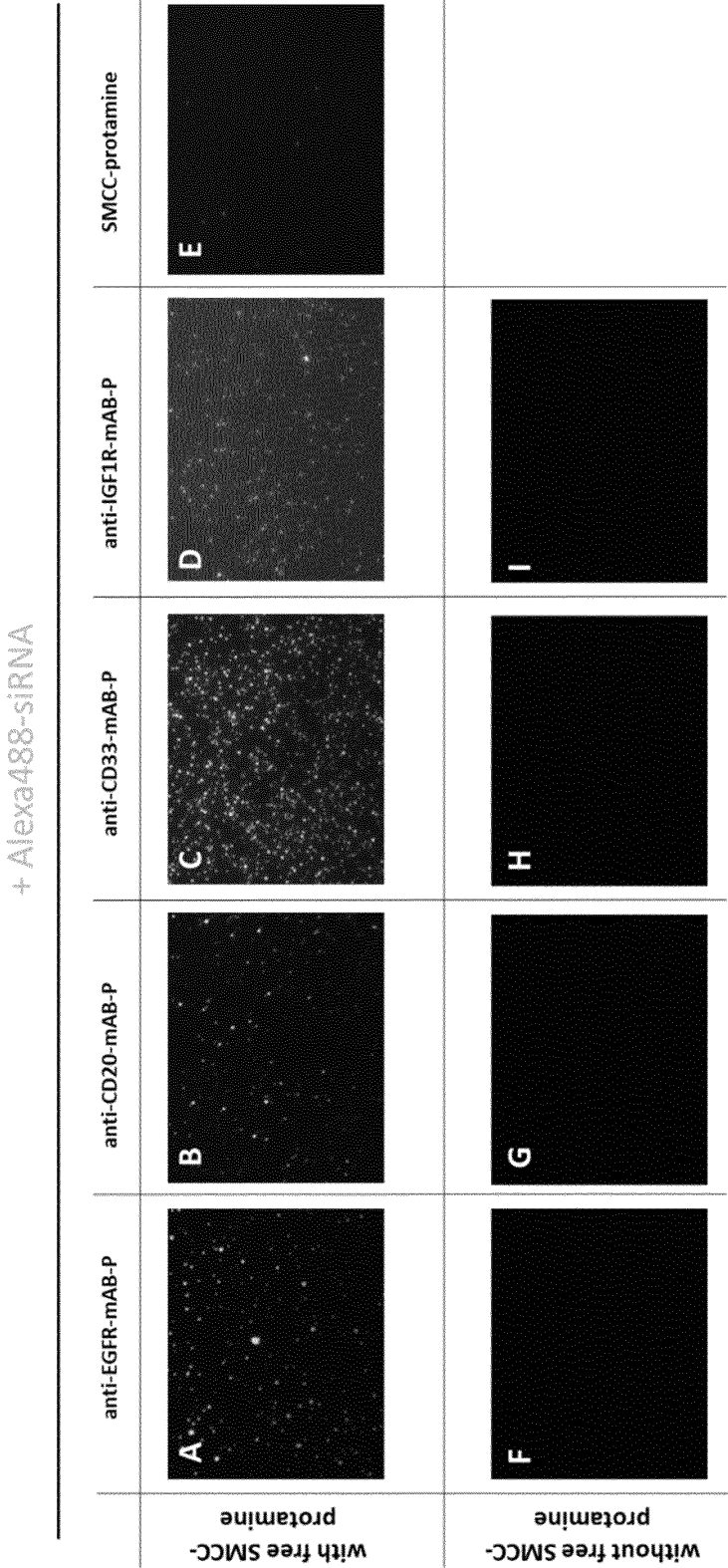


Figure 37

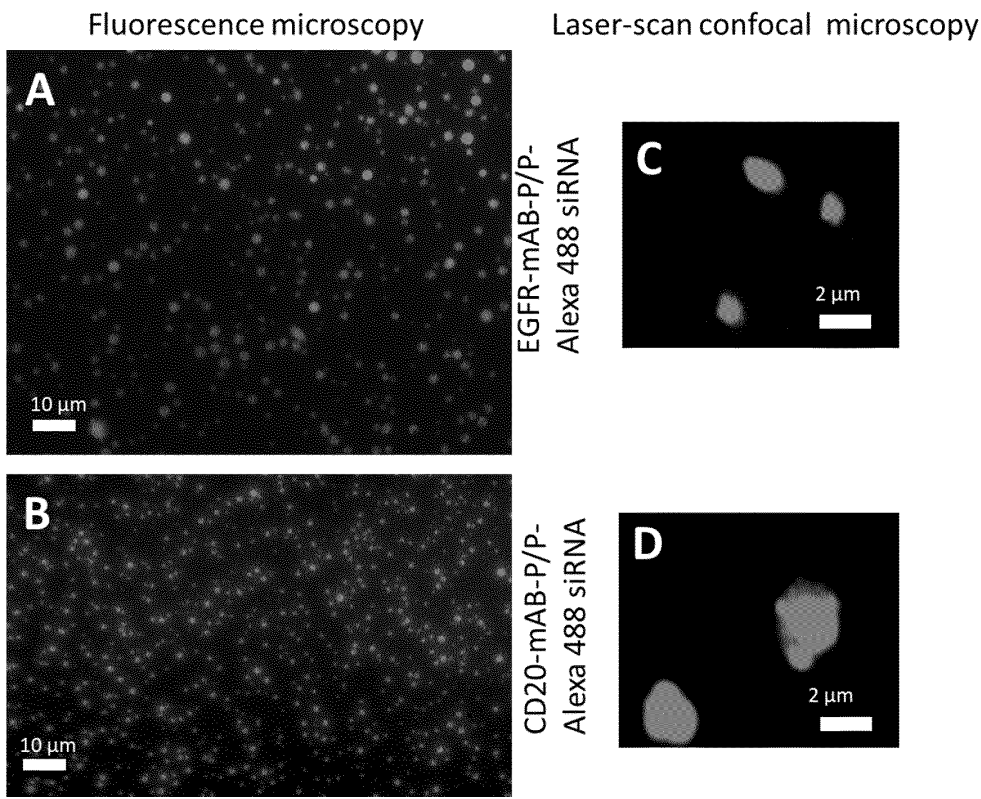


Figure 38

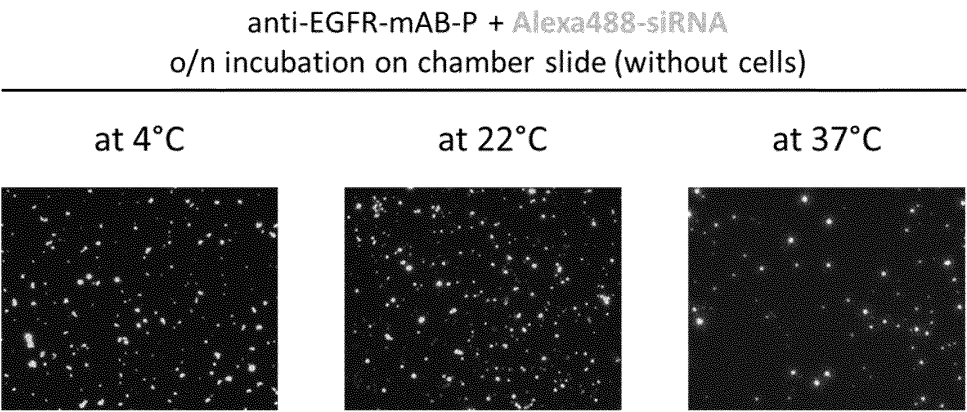
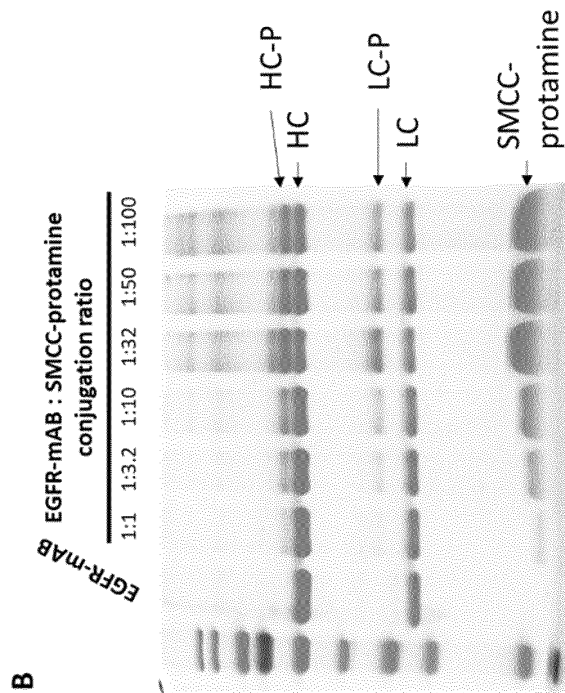


Figure 39



A

cetuximab concentration (nM)	SMCC-protamine concentration (nM)	EGFR-mAB : SMCC-protamine conjugation ratio
60	60	1:1
60	192	1:3.2
60	600	1:10
60	1920	1:32
60	3000	1:50
60	6000	1:100

Figure 41

o/n incubation on chamber slide (without cells)

anti-EGFR-mAB-P with depleted SMCC-protamine + Alexa488-siRNA

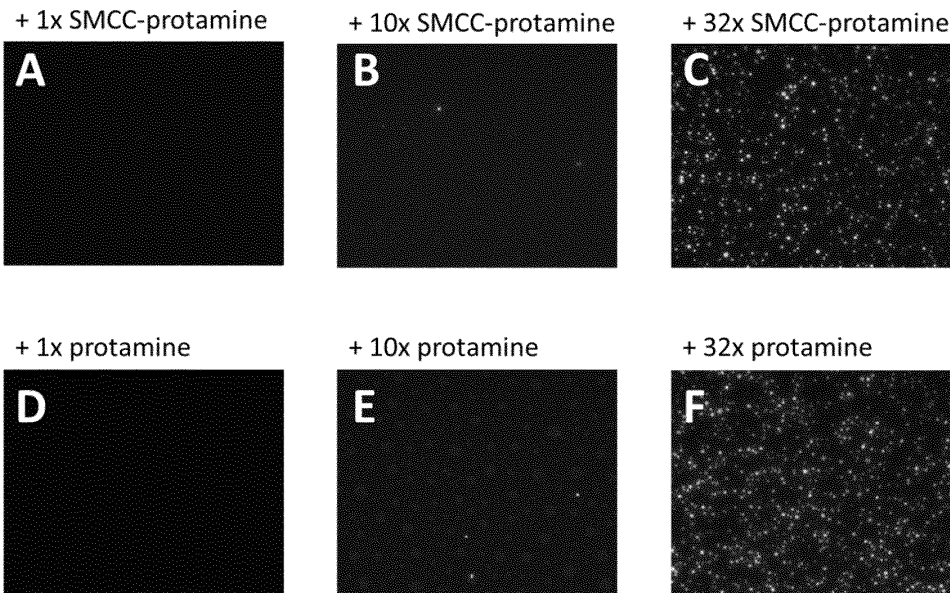


Figure 42

o/n incubation on chamber slide (without cells): anti-CD20-mAB-P

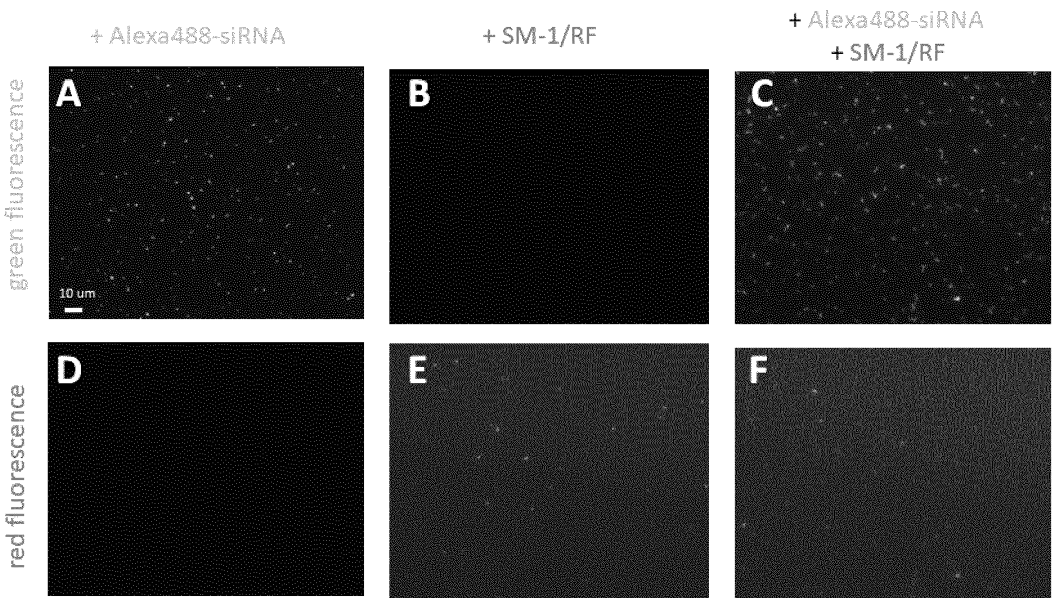


Figure 43

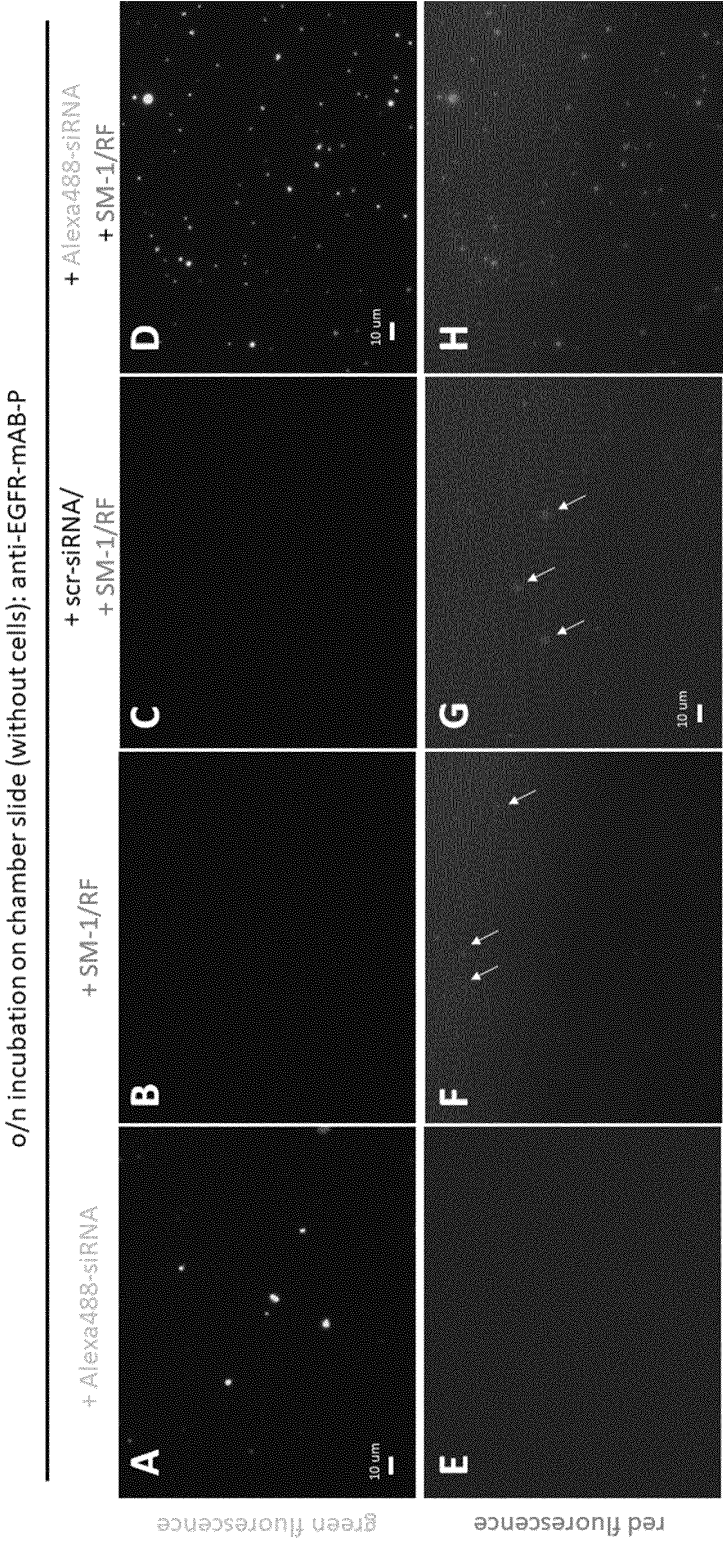


Figure 44

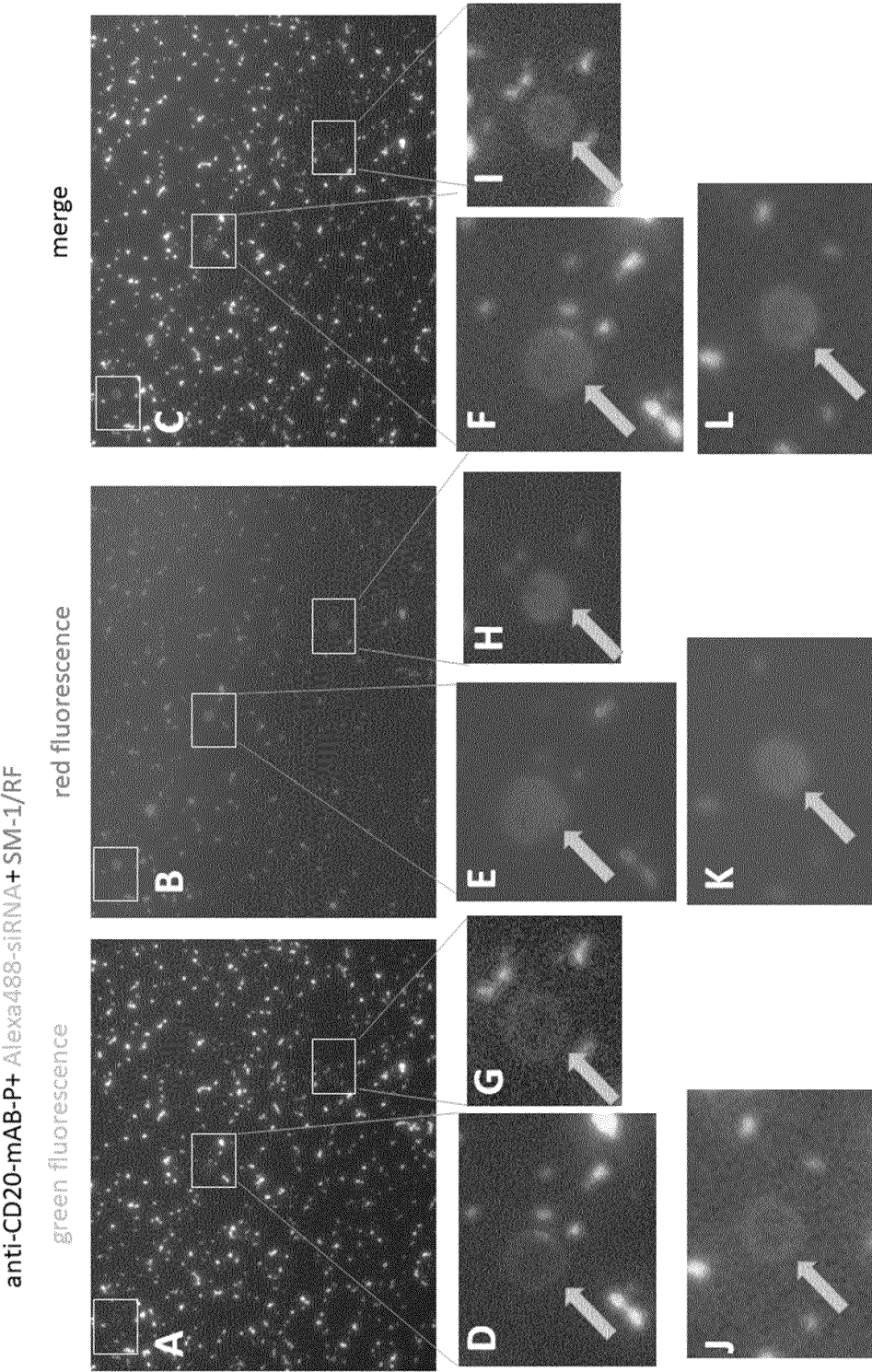


Figure 45

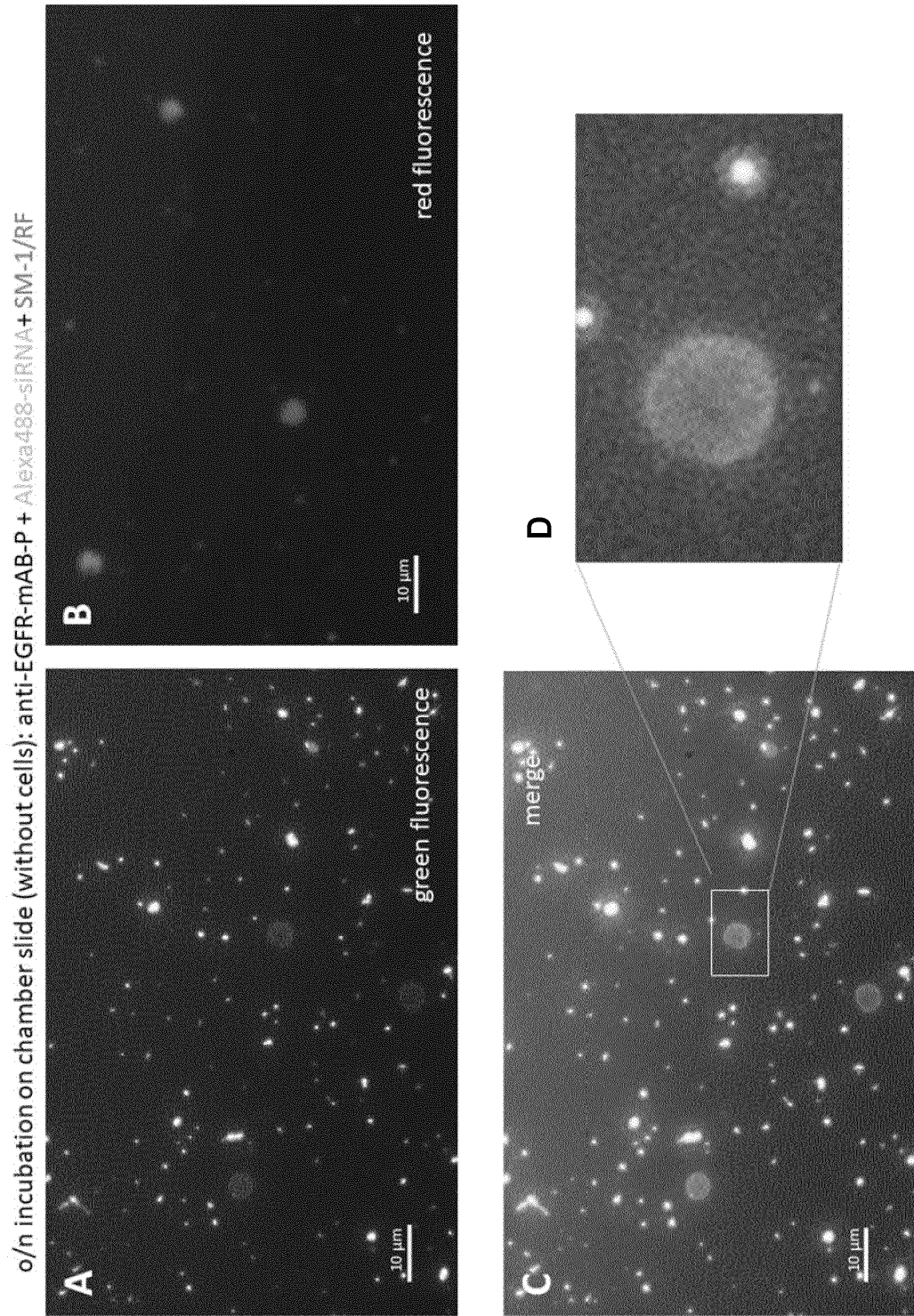


Figure 46

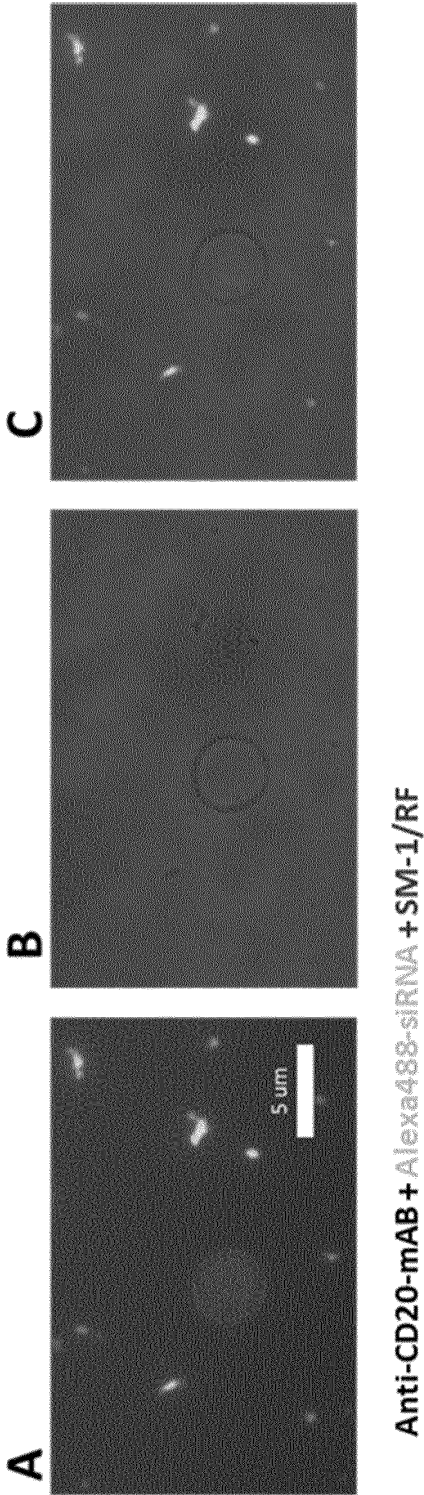


Figure 47

LSM microscopy of vesicles formed upon o/n incubation on chamber slide (without cells) by:

A anti-EGFR-mAB-P + Alexa488-siRNA+ ibrutinib-Cy3.5 **B** anti-CD20-mAB-P+ Alexa488-siRNA+ ibrutinib-Cy3.5

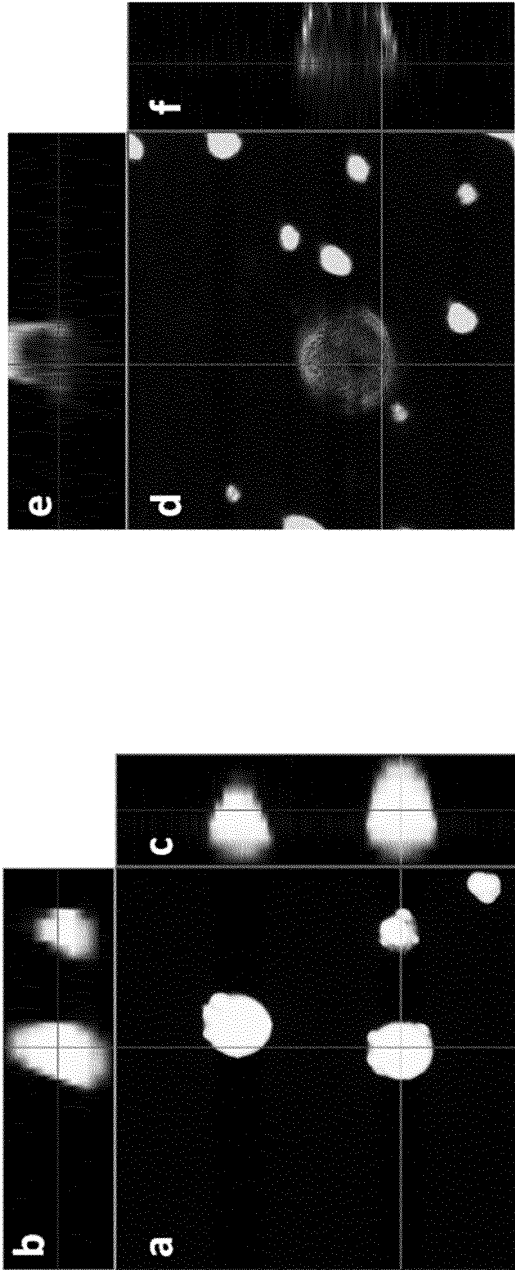


Figure 48

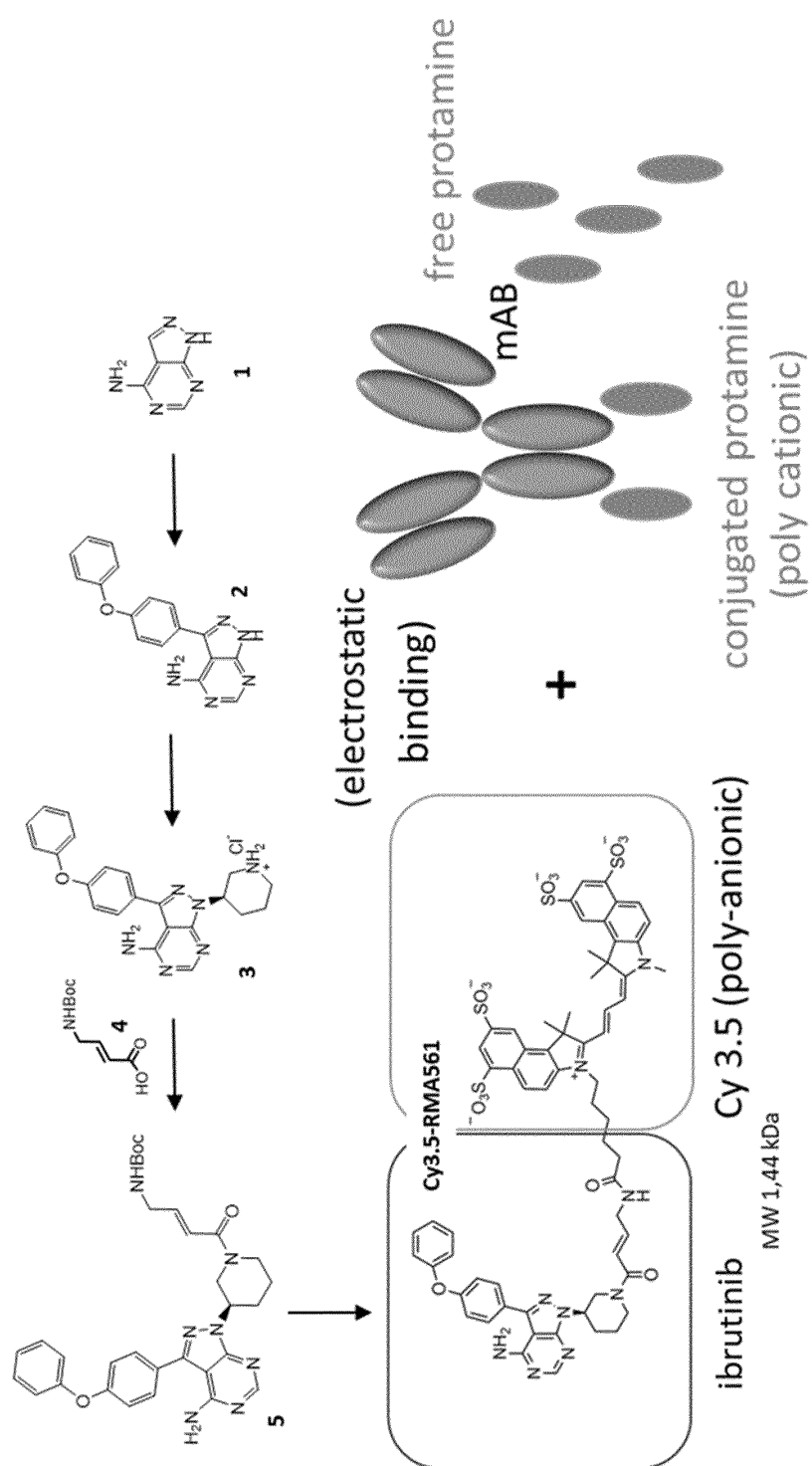


Figure 49

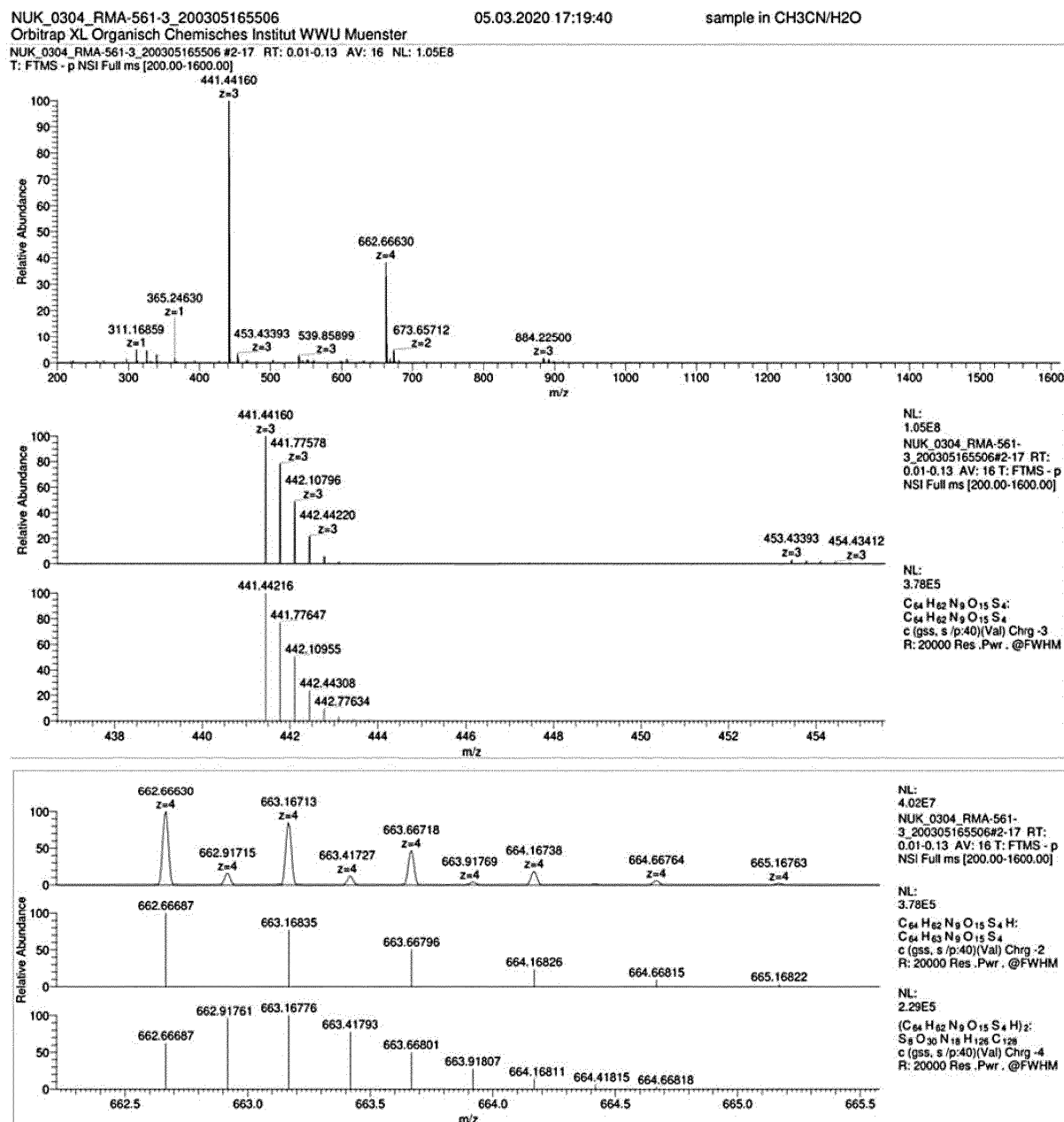


Figure 50

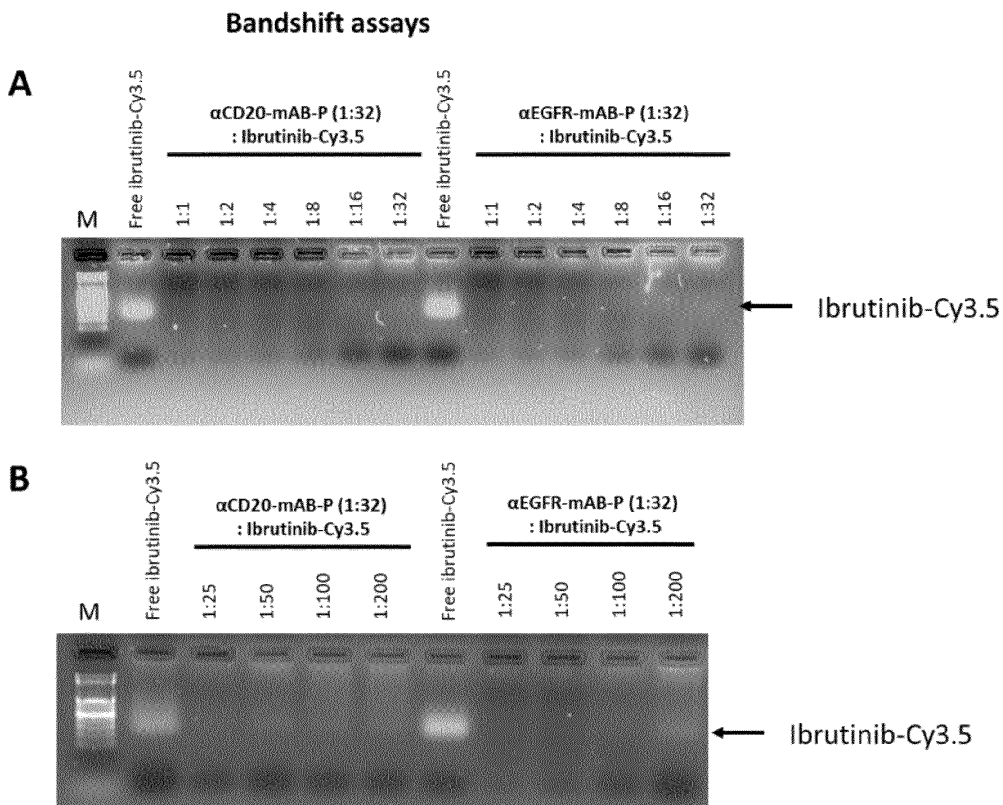


Figure 51

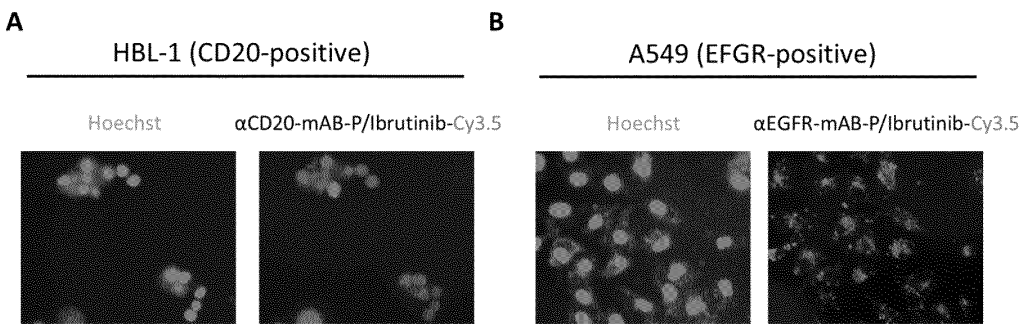


Figure 52

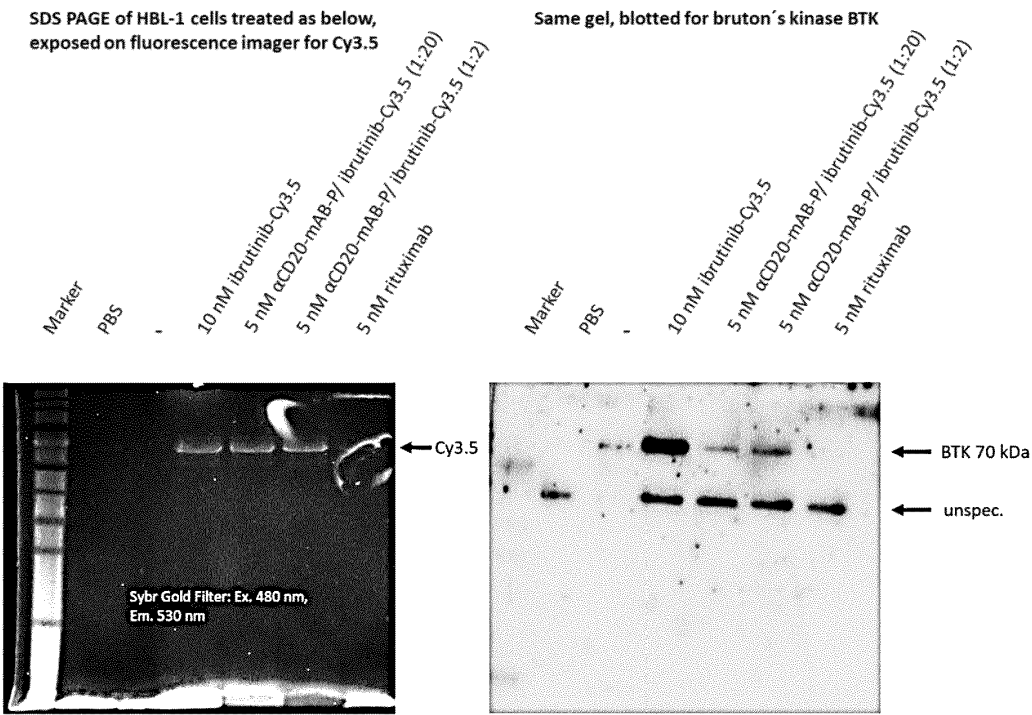


Figure 53

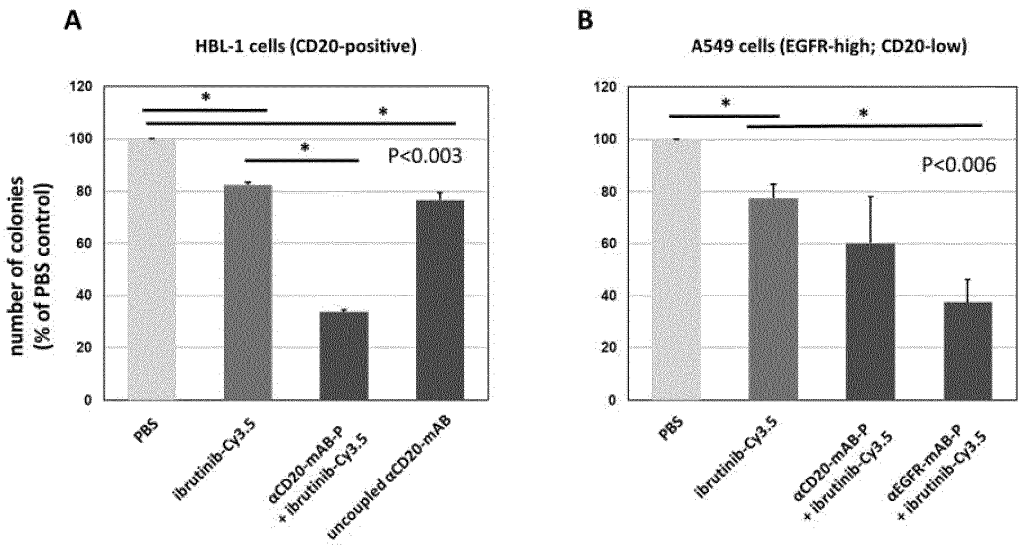


Figure 54

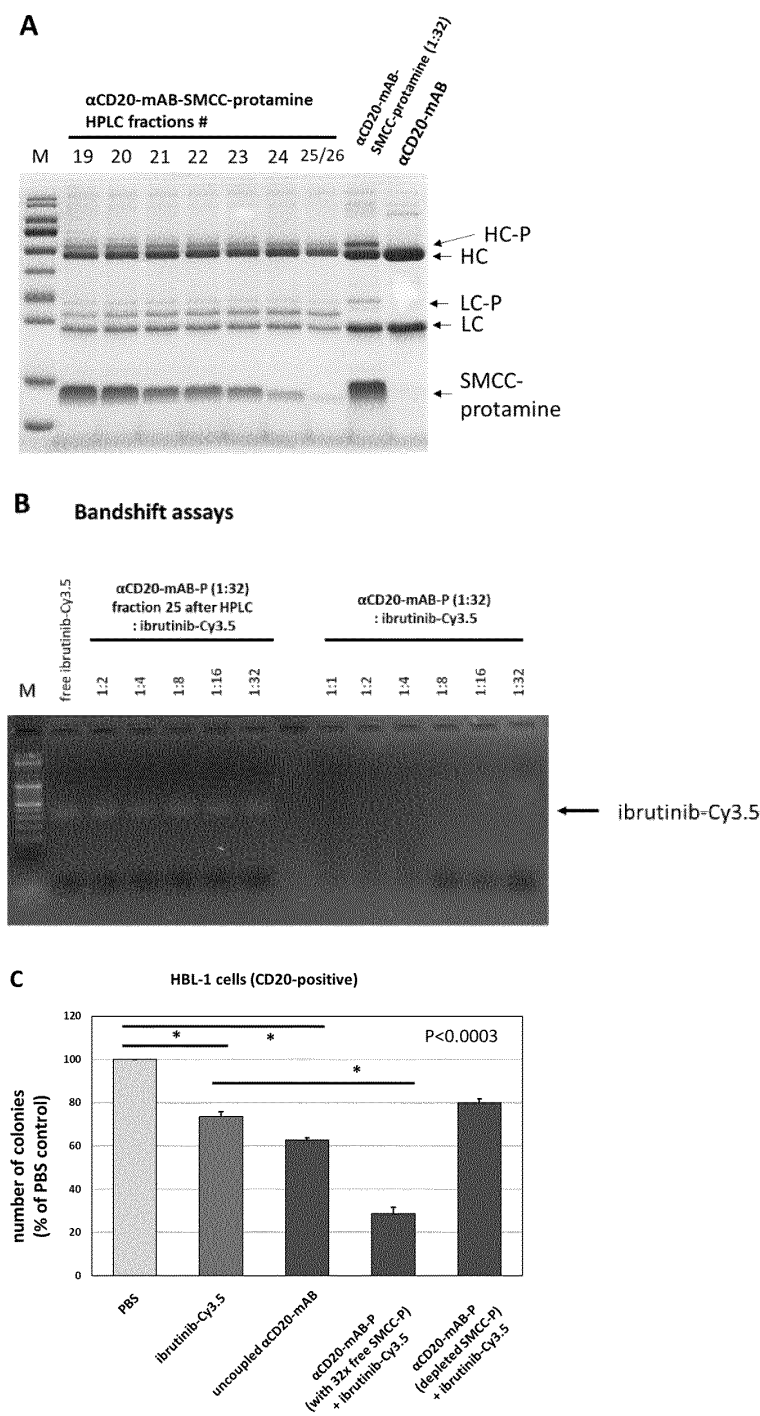


Figure 55

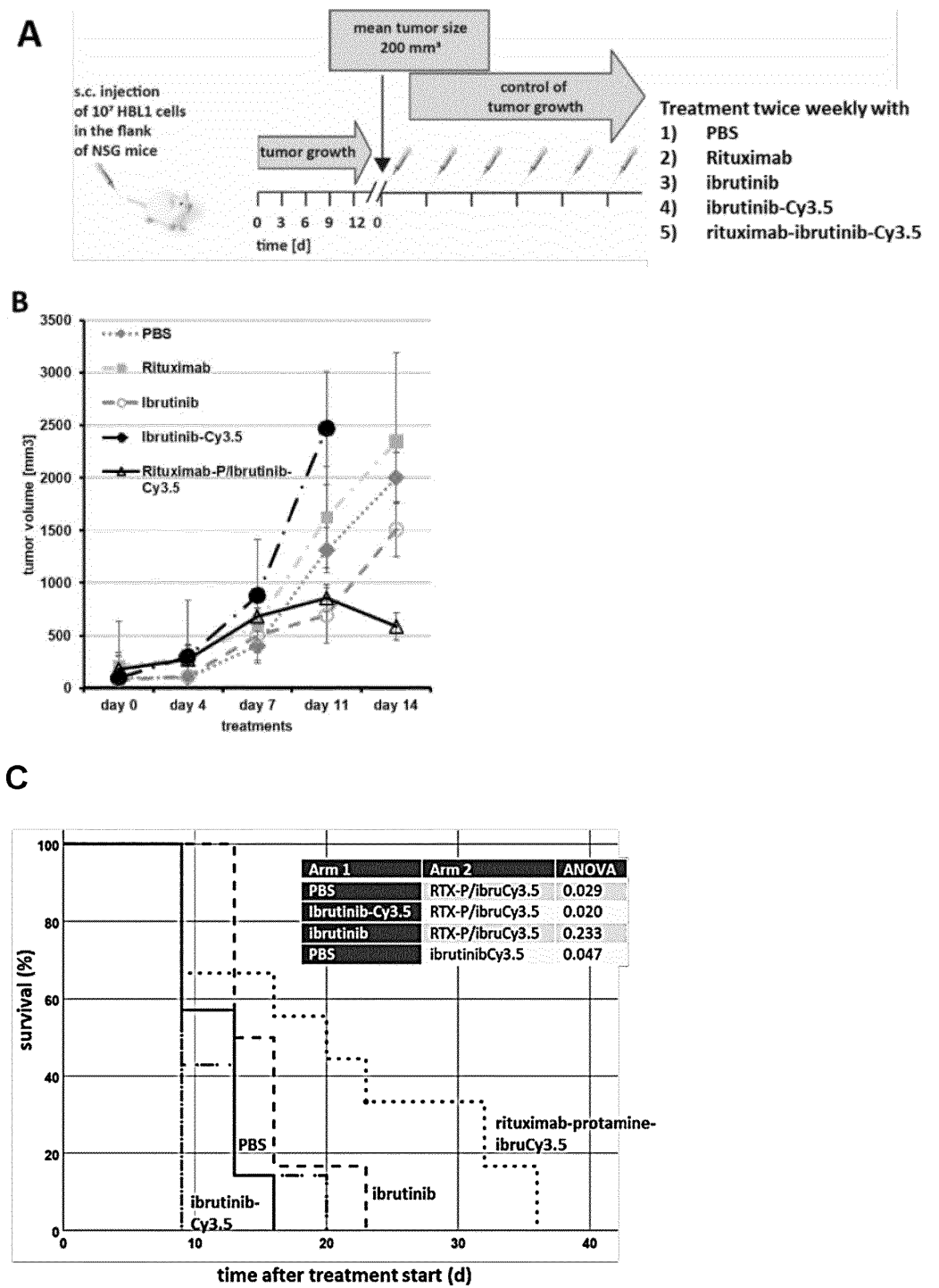


Figure 56

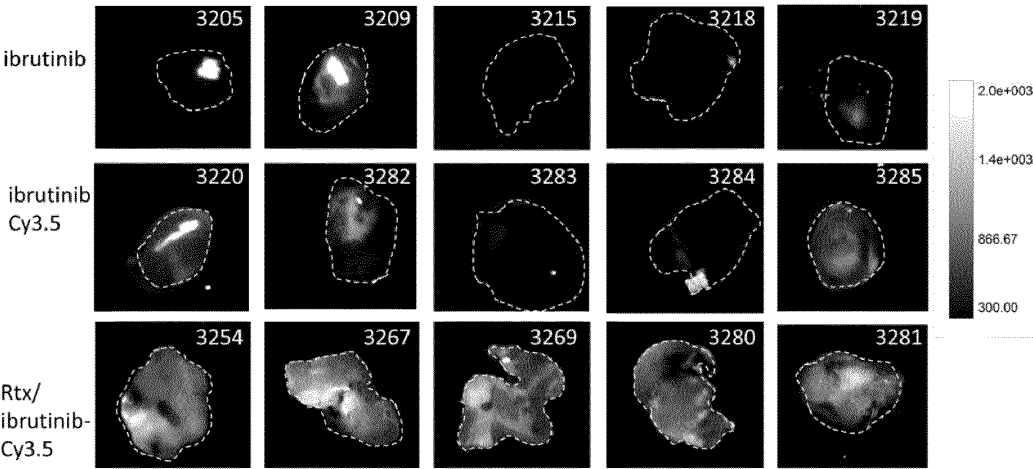


Figure 57

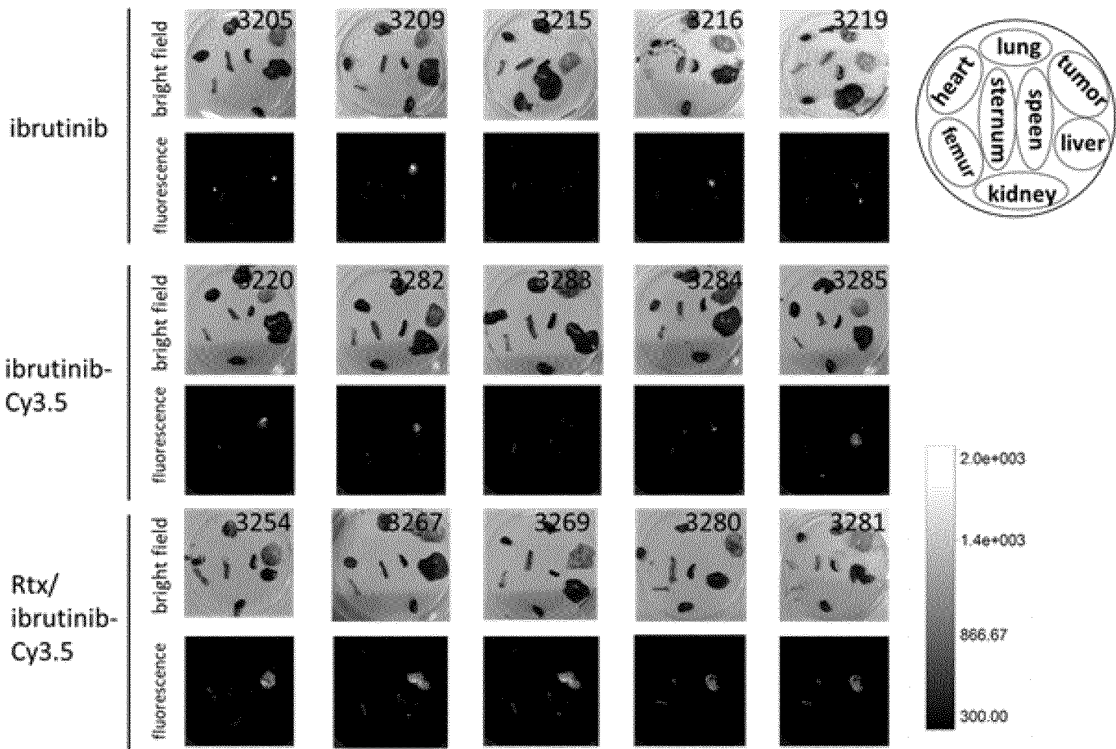


Figure 58

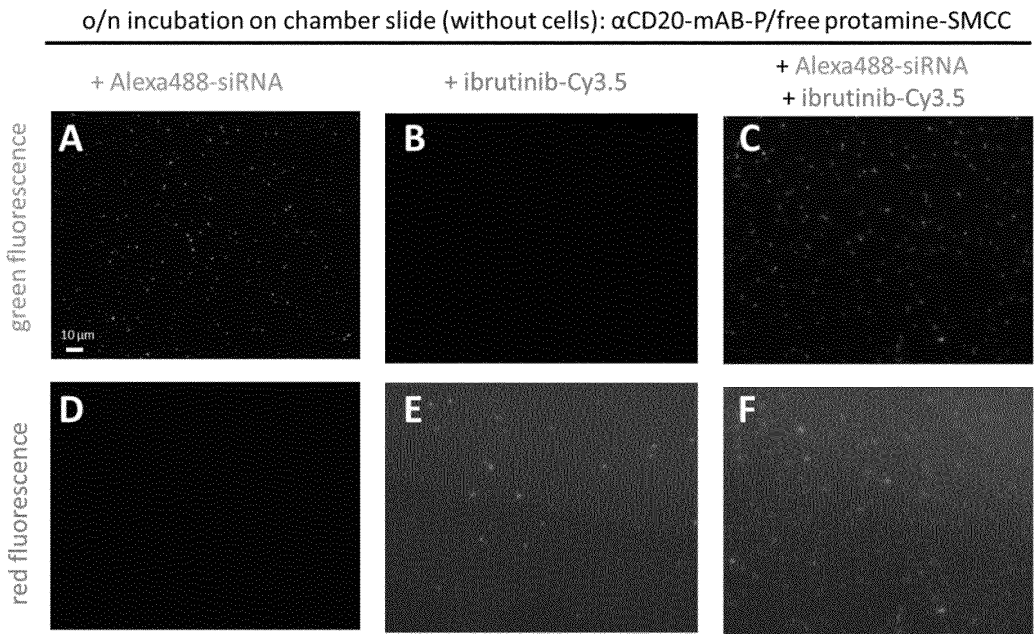


Figure 59

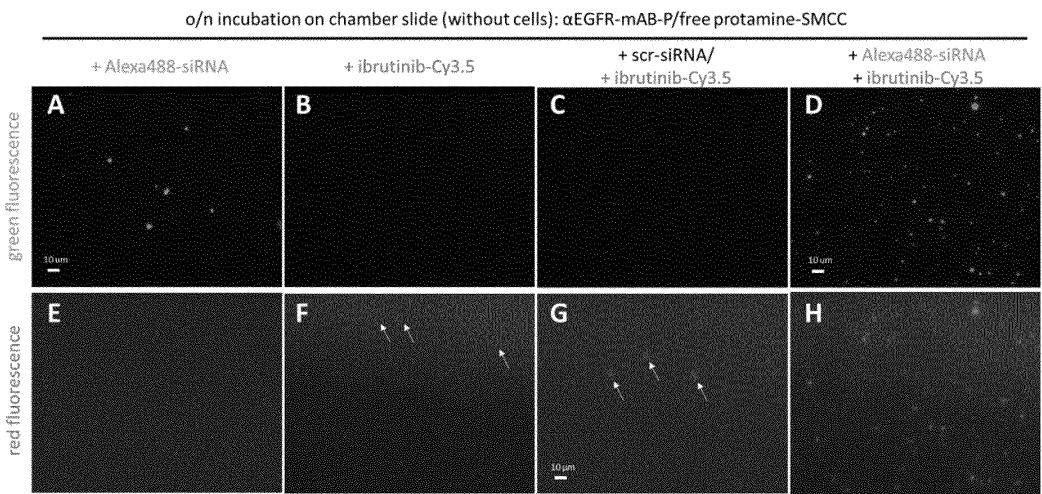


Figure 60

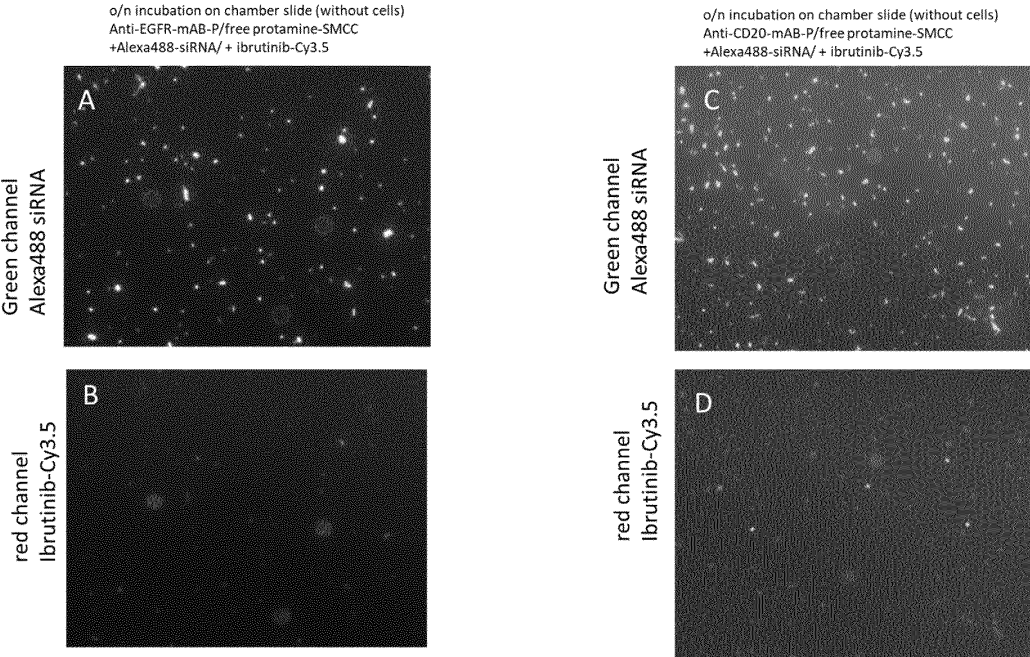
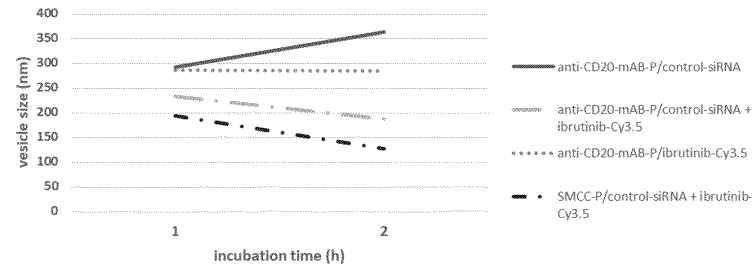


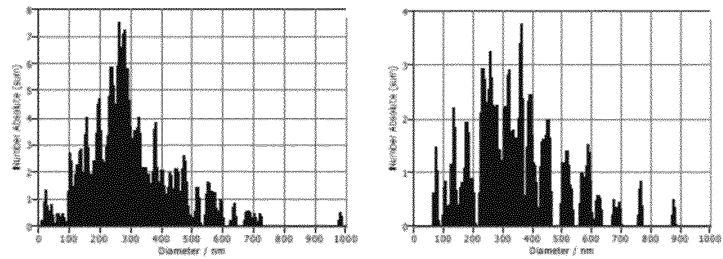
Figure 61

A



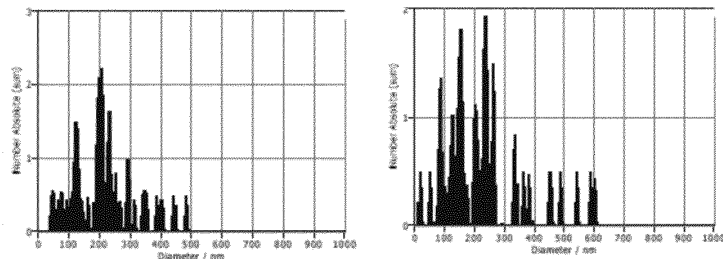
B

α CD20-mAB-P
+ control-siRNA



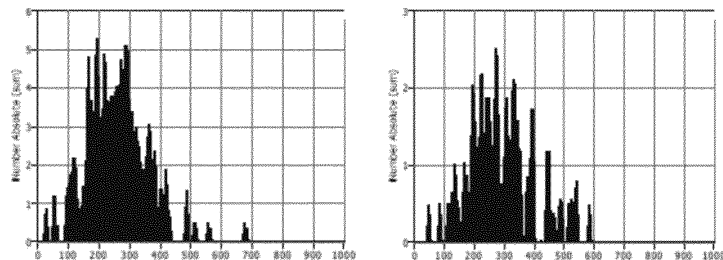
C

α CD20-mAB-P
+ ibrutinib-Cy3.5



D

α CD20-mAB-P
+ control-siRNA
+ ibrutinib-Cy3.5



E

free SMCC-P
+ control-siRNA
+ ibrutinib-Cy3.5

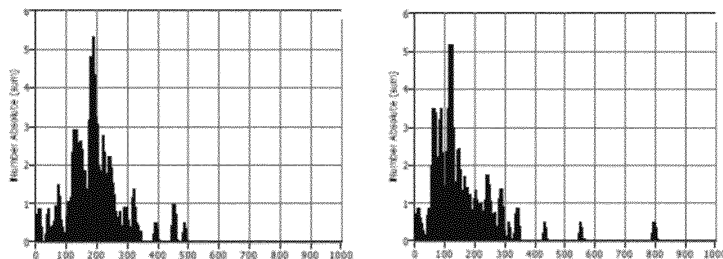
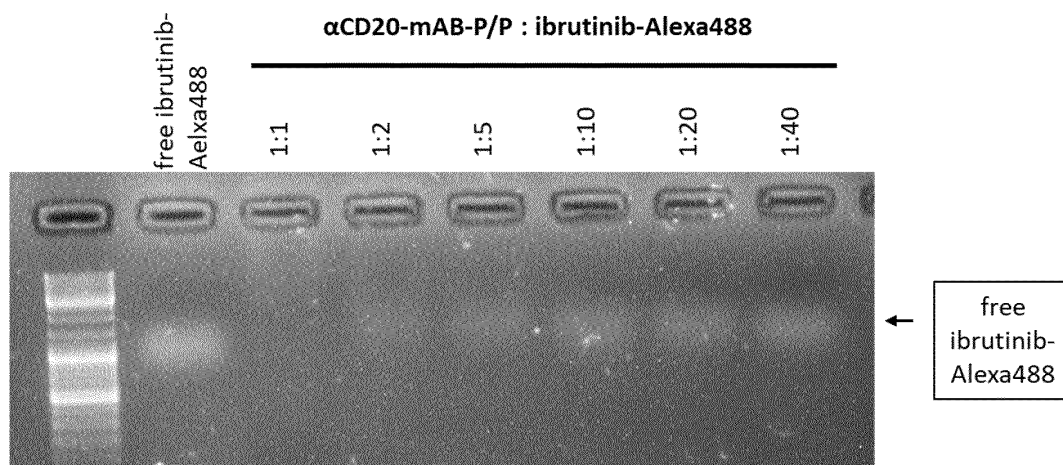


Figure 62

A



B

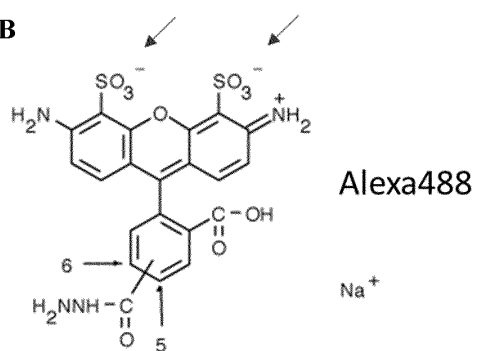


Figure 62 (cont'd)

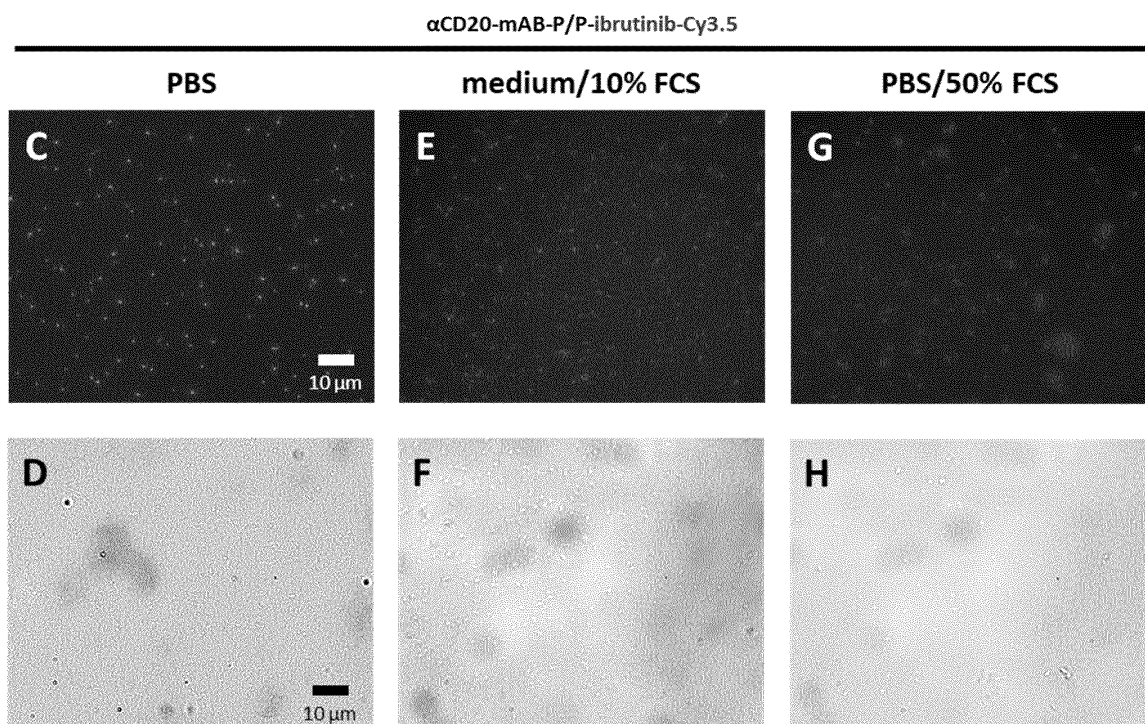


Figure 63

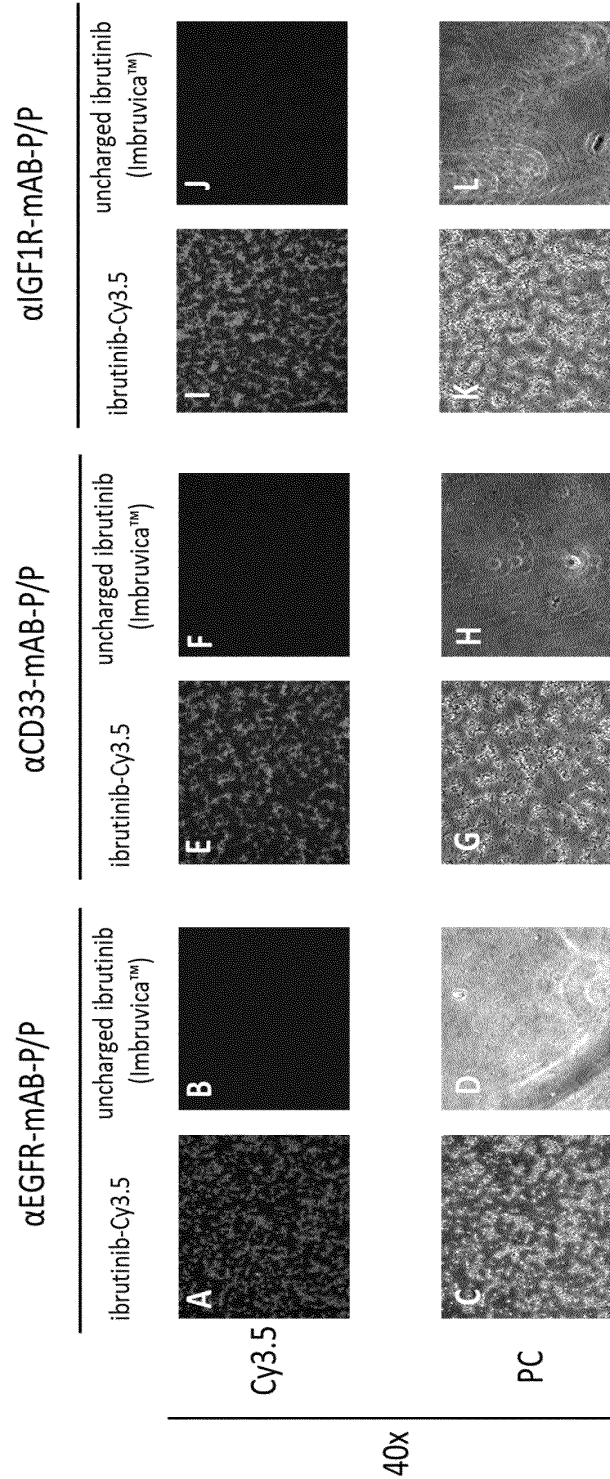


Figure 64

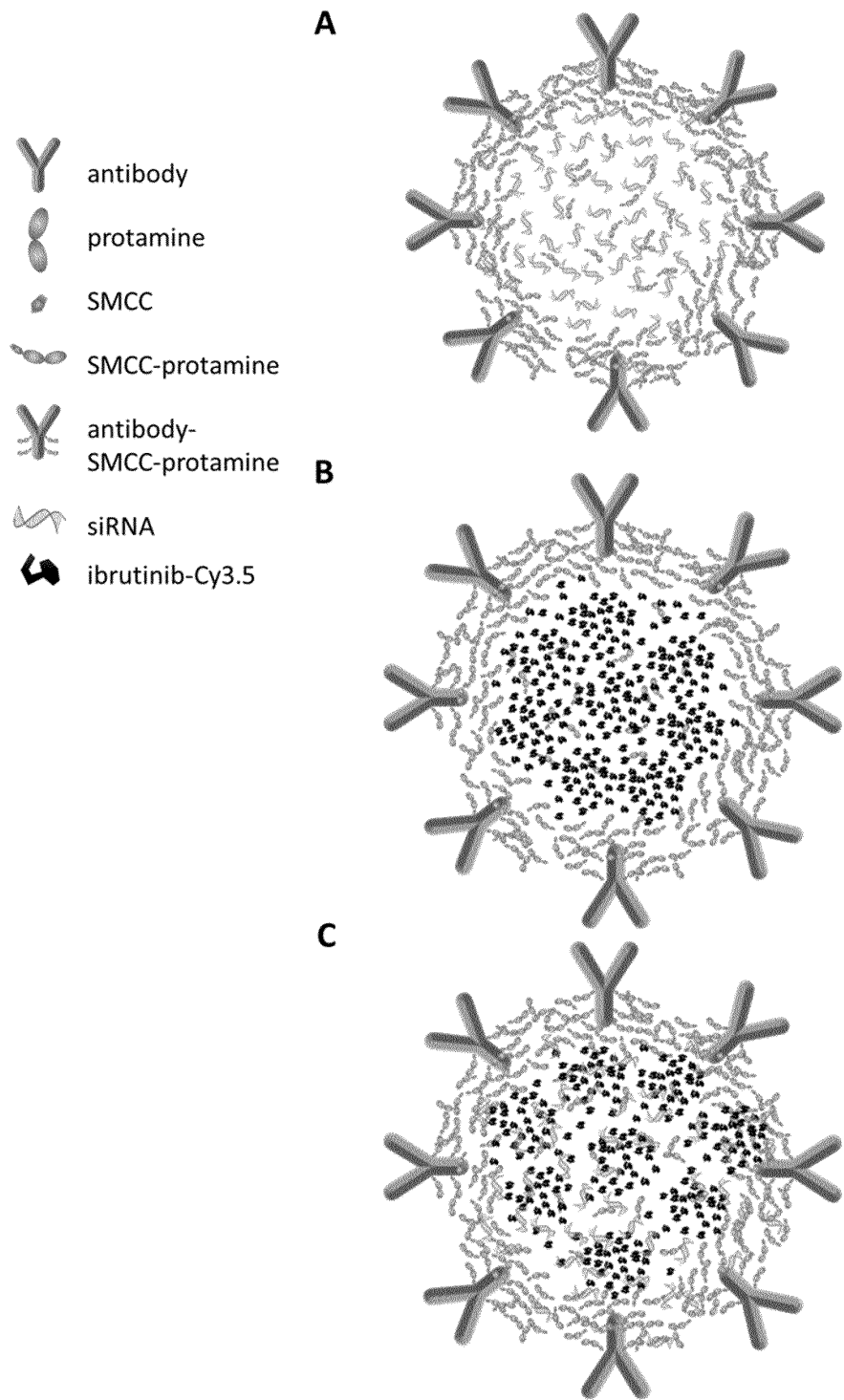


Figure 65

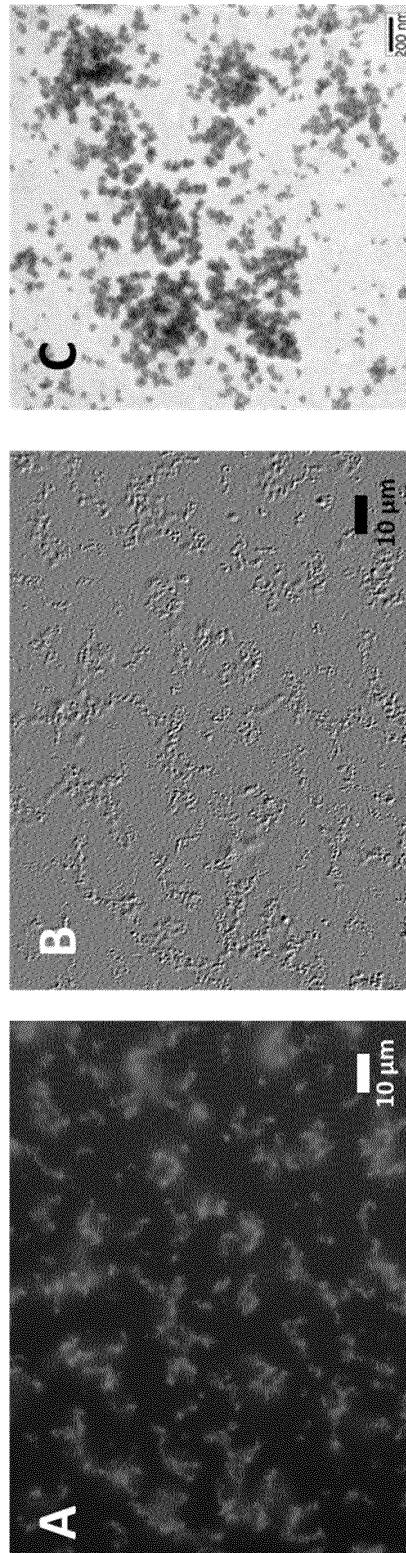


Figure 66

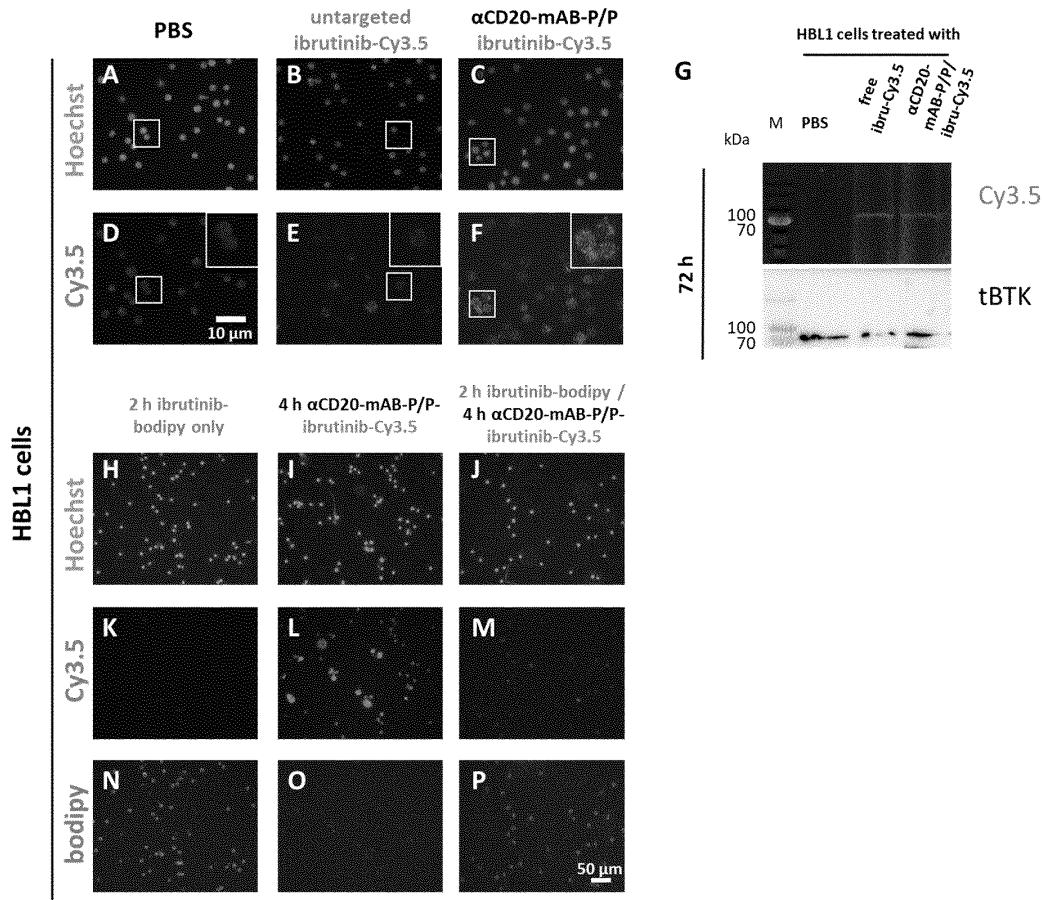


Figure 67

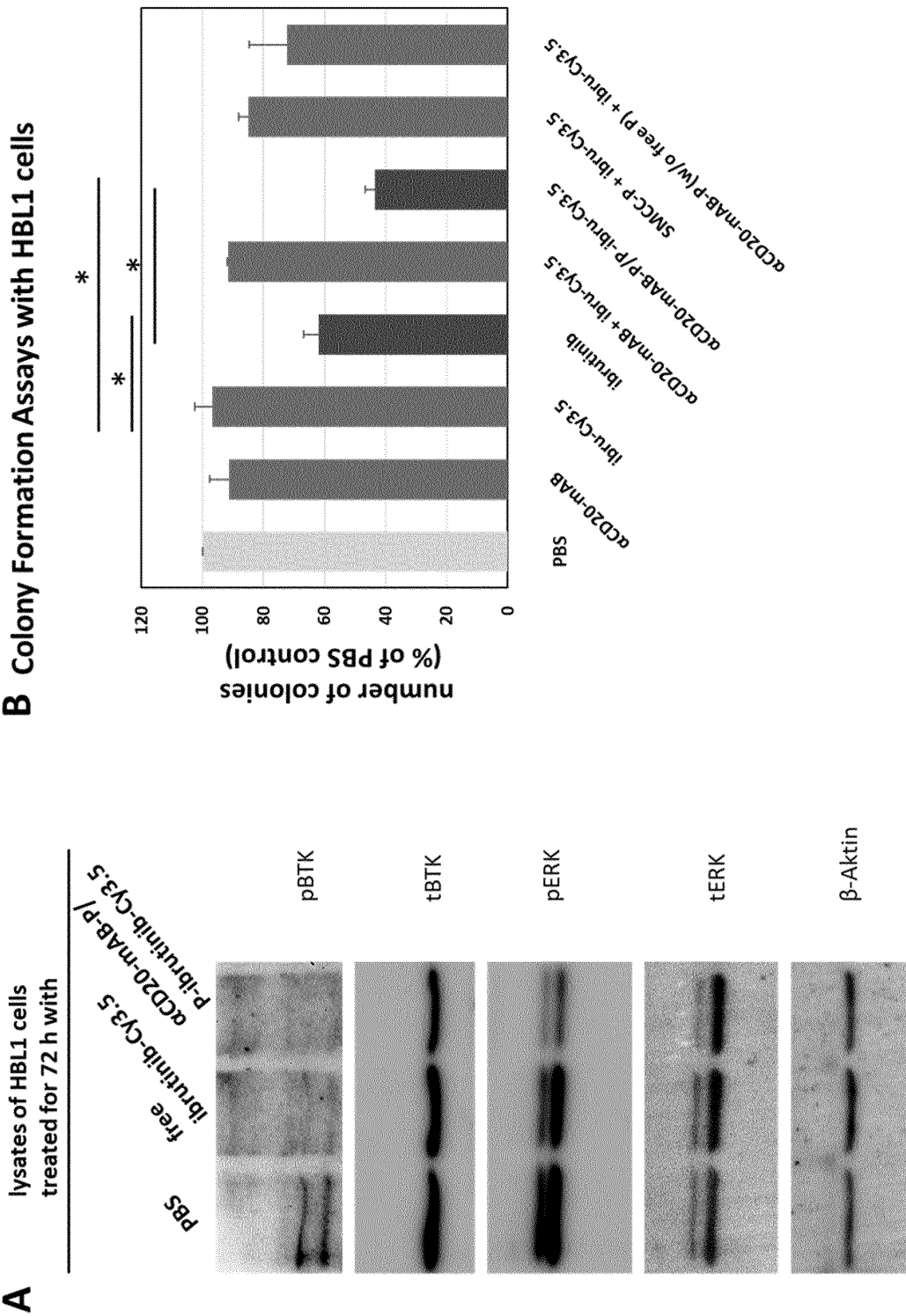


Figure 68

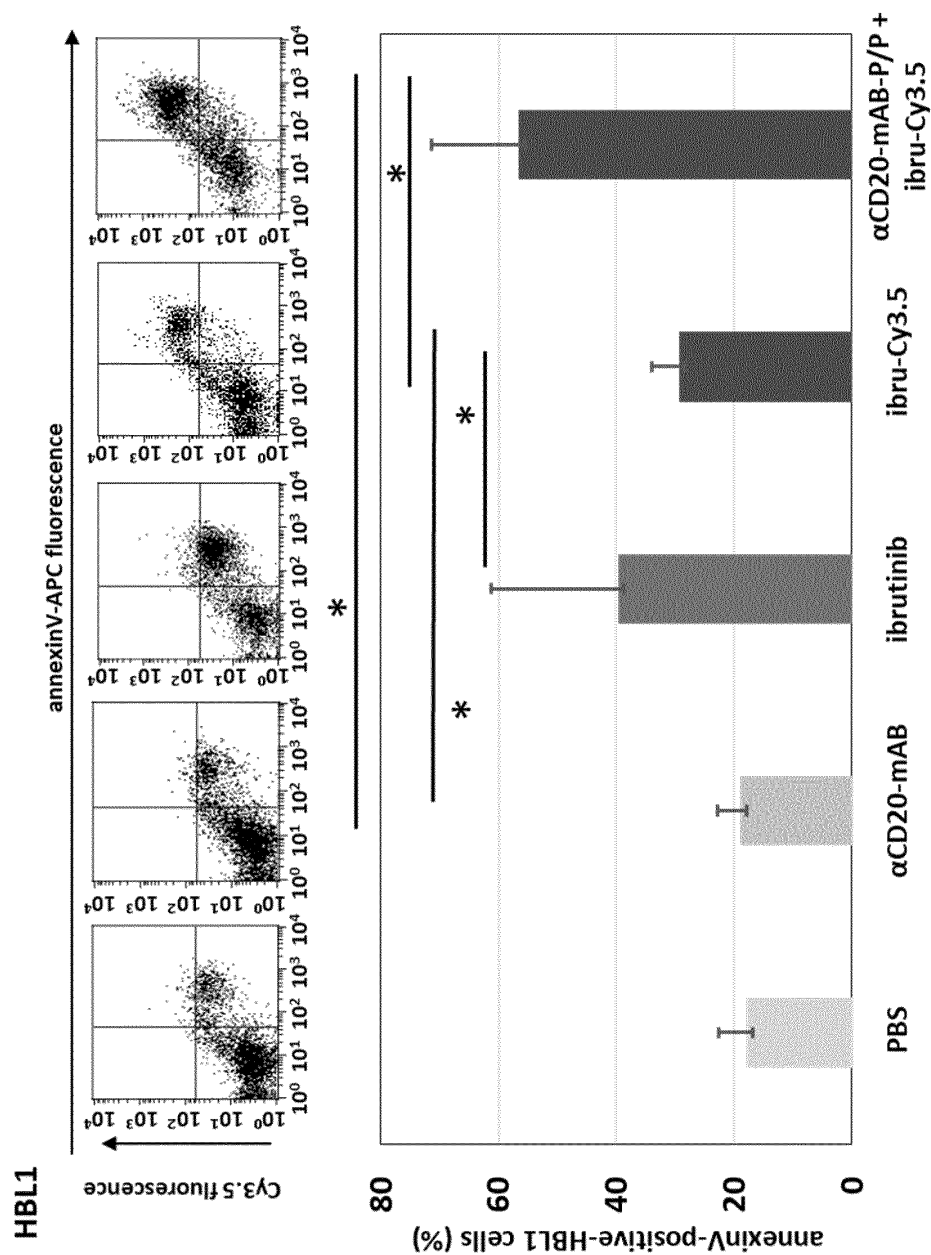
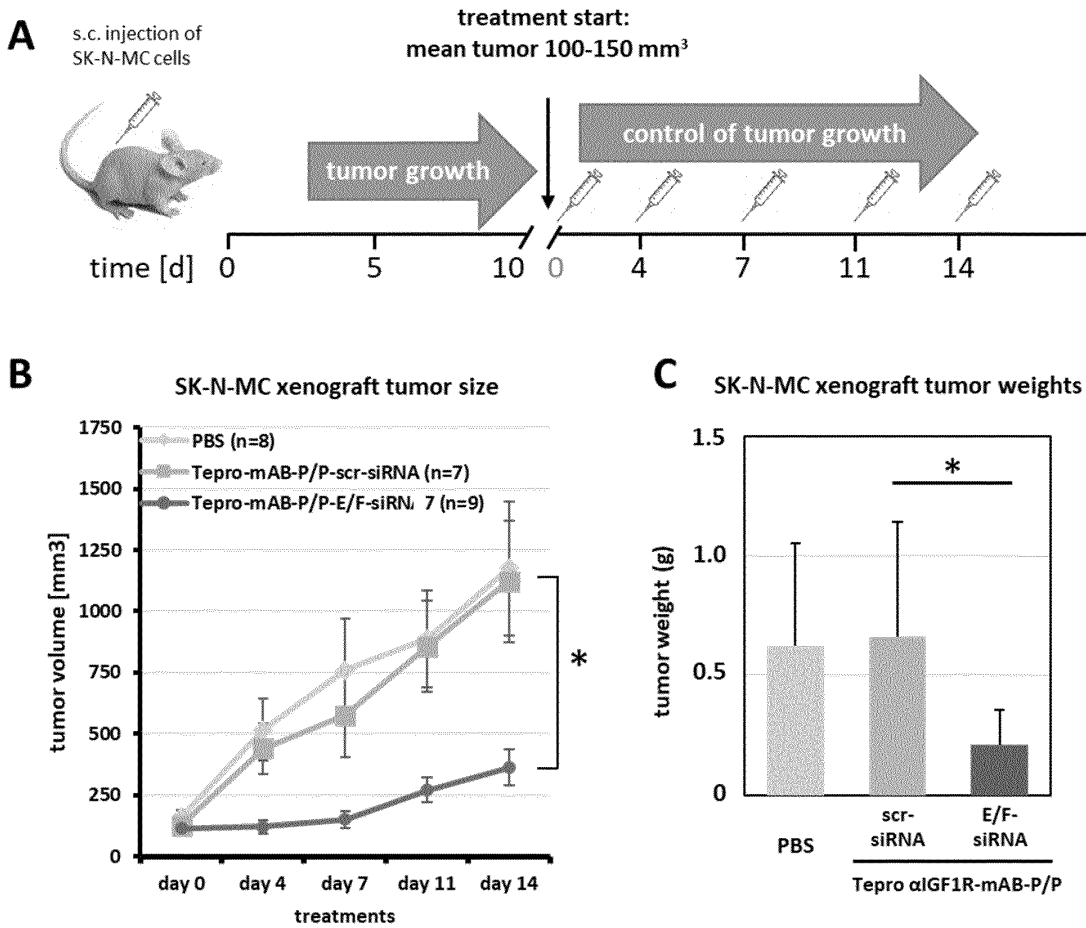


Figure 69



Nanoparticle size and charge:
Dynamic Light Scattering (DLS) and zeta potential measurements

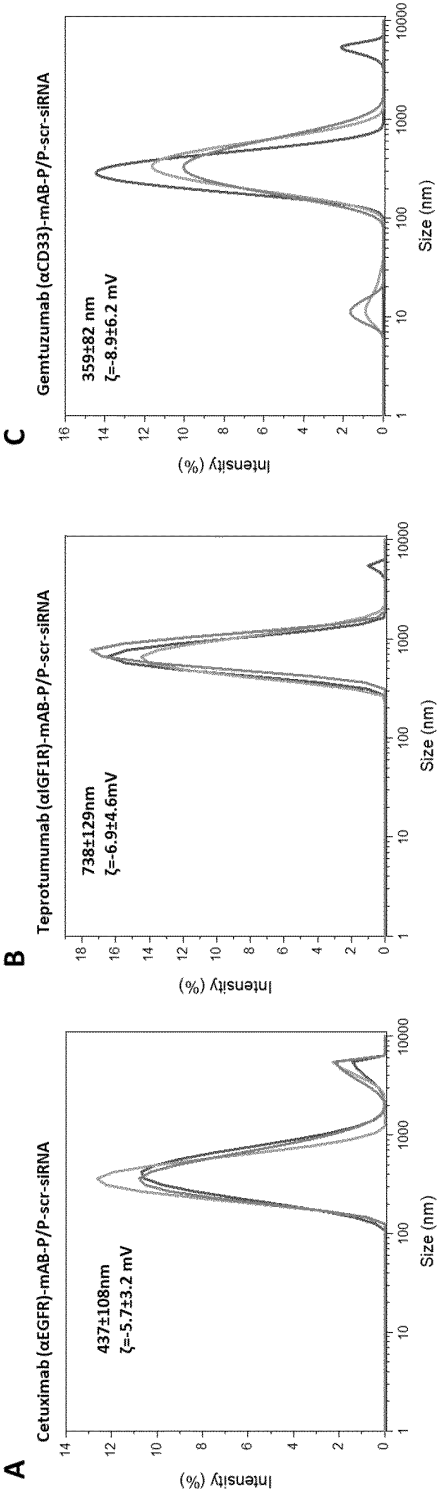


Figure 70

Titration of the optimal electrostatic balance for nanoparticle formation

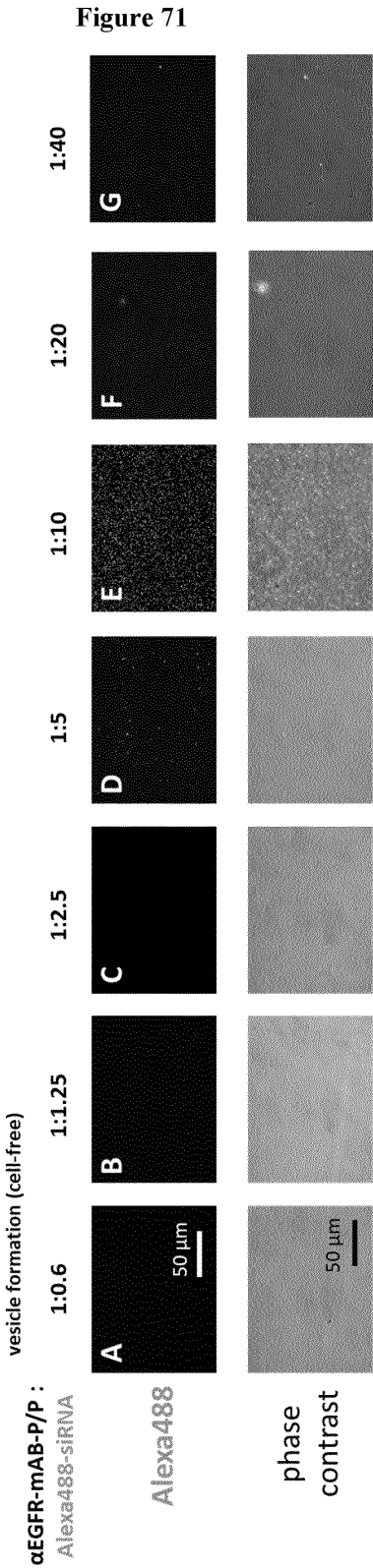


Figure 72

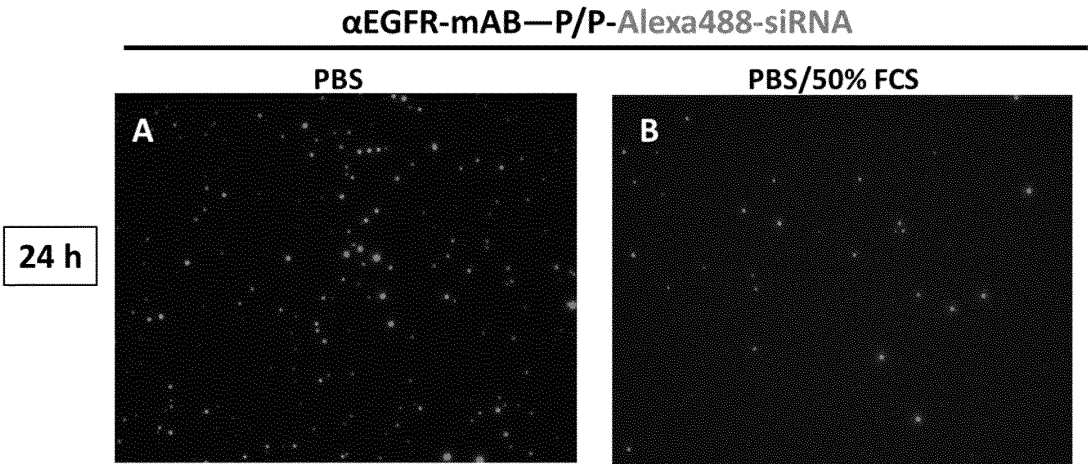


Figure 73

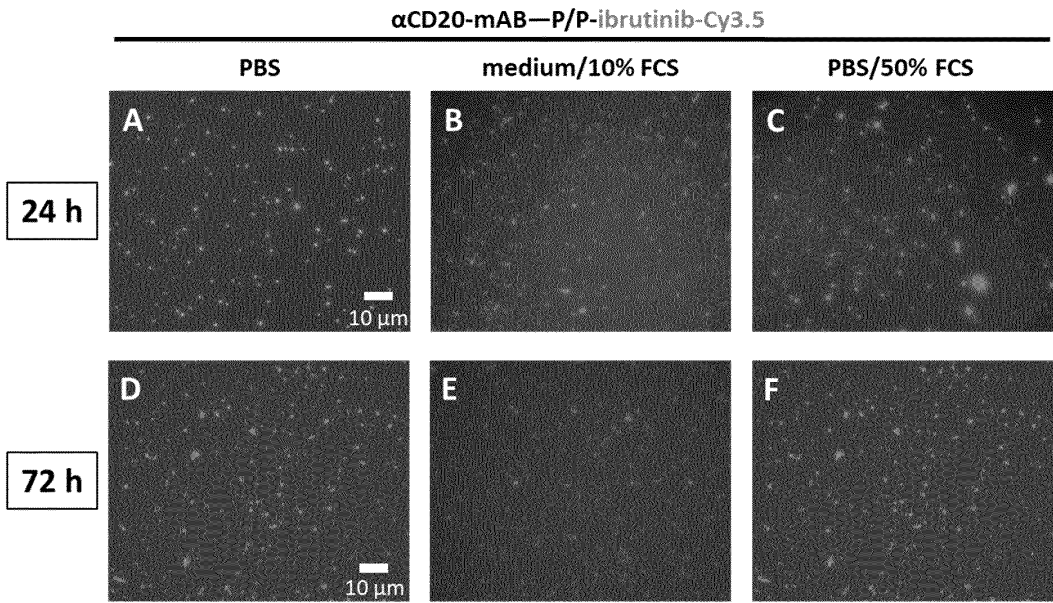


Figure 74

Nanocarrier stability: pH stability of nanocarriers with siRNA load

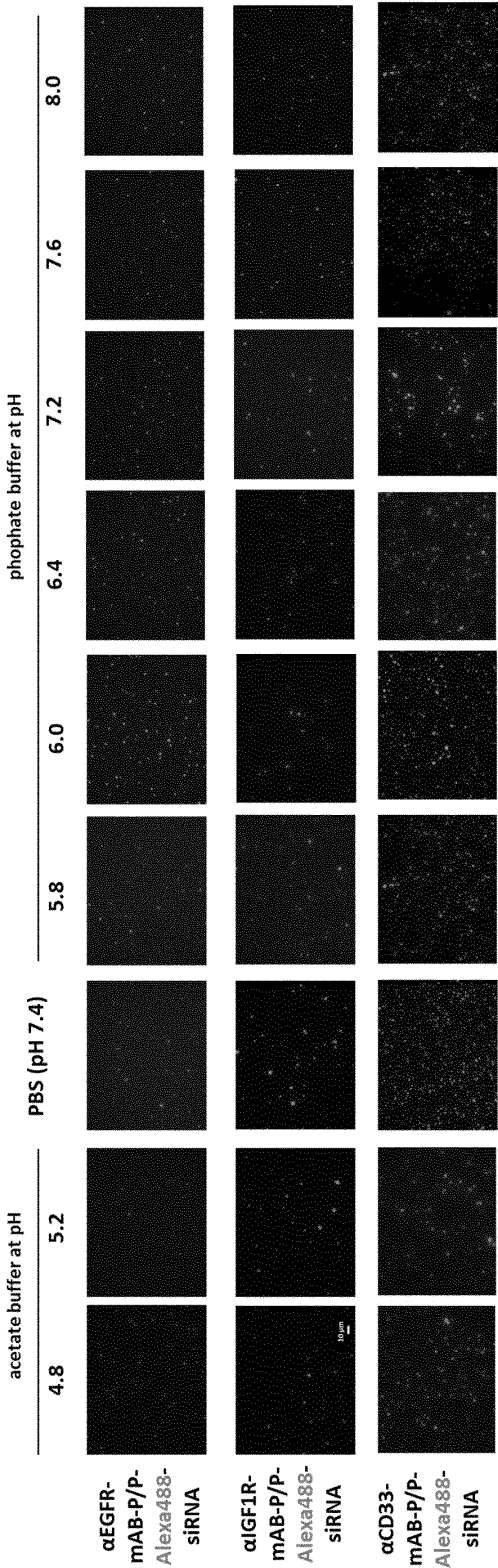


Figure 75

Nanocarrier stability: pH stability of nanocarriers loaded with ibrutinib-Cy3.5

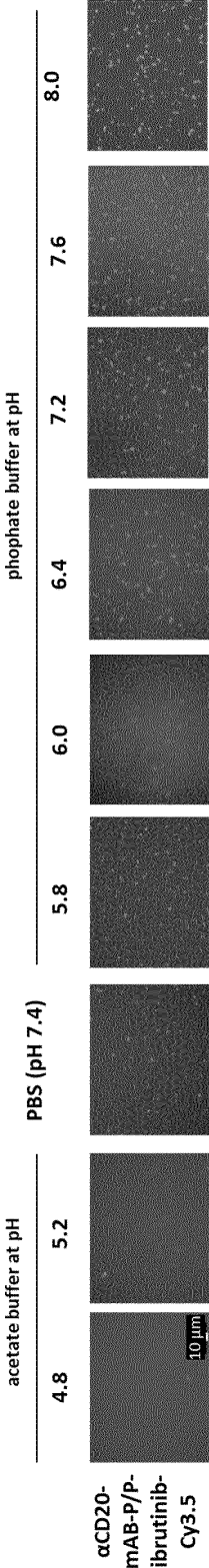


Figure 76

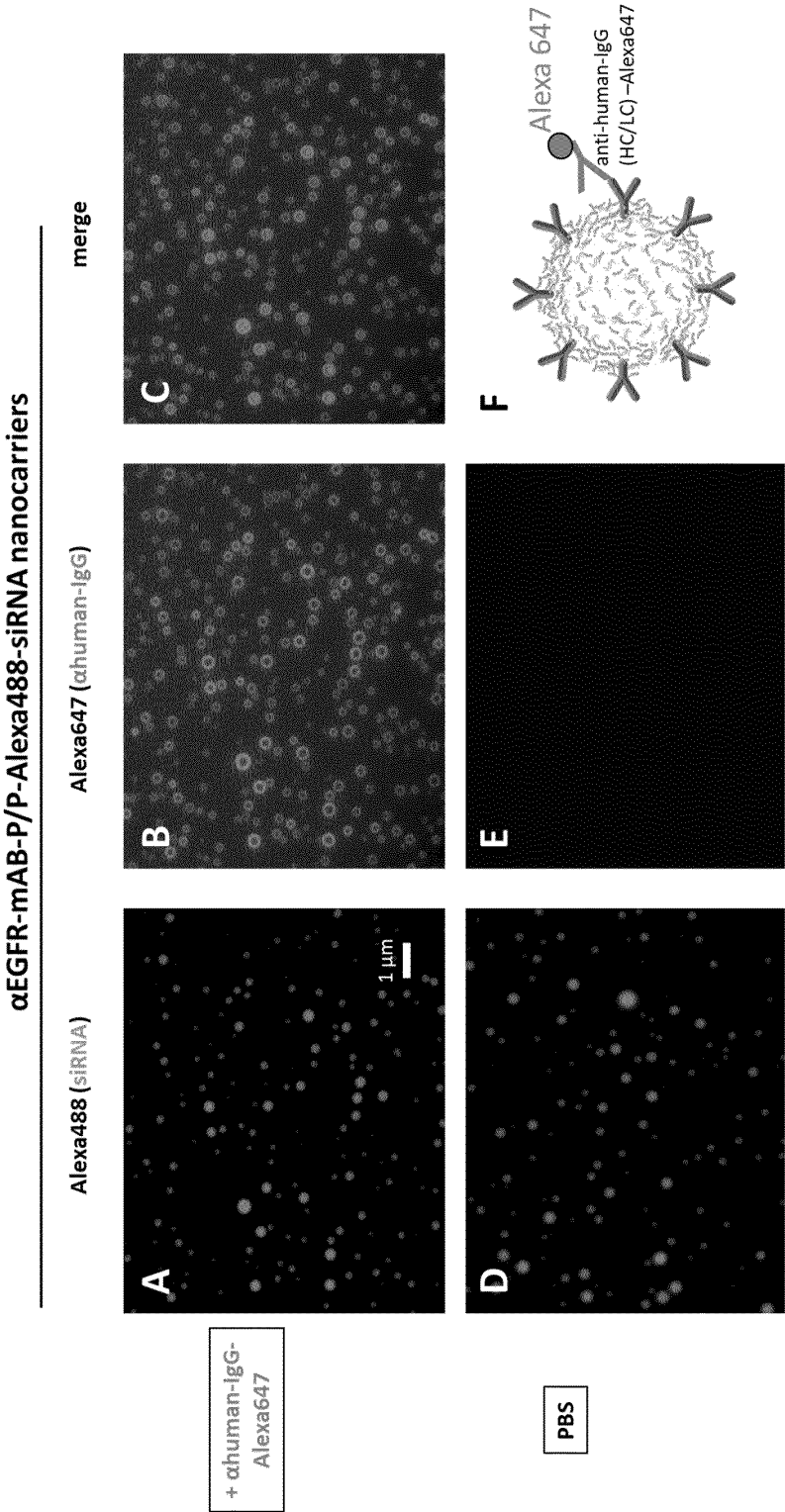


Figure 77

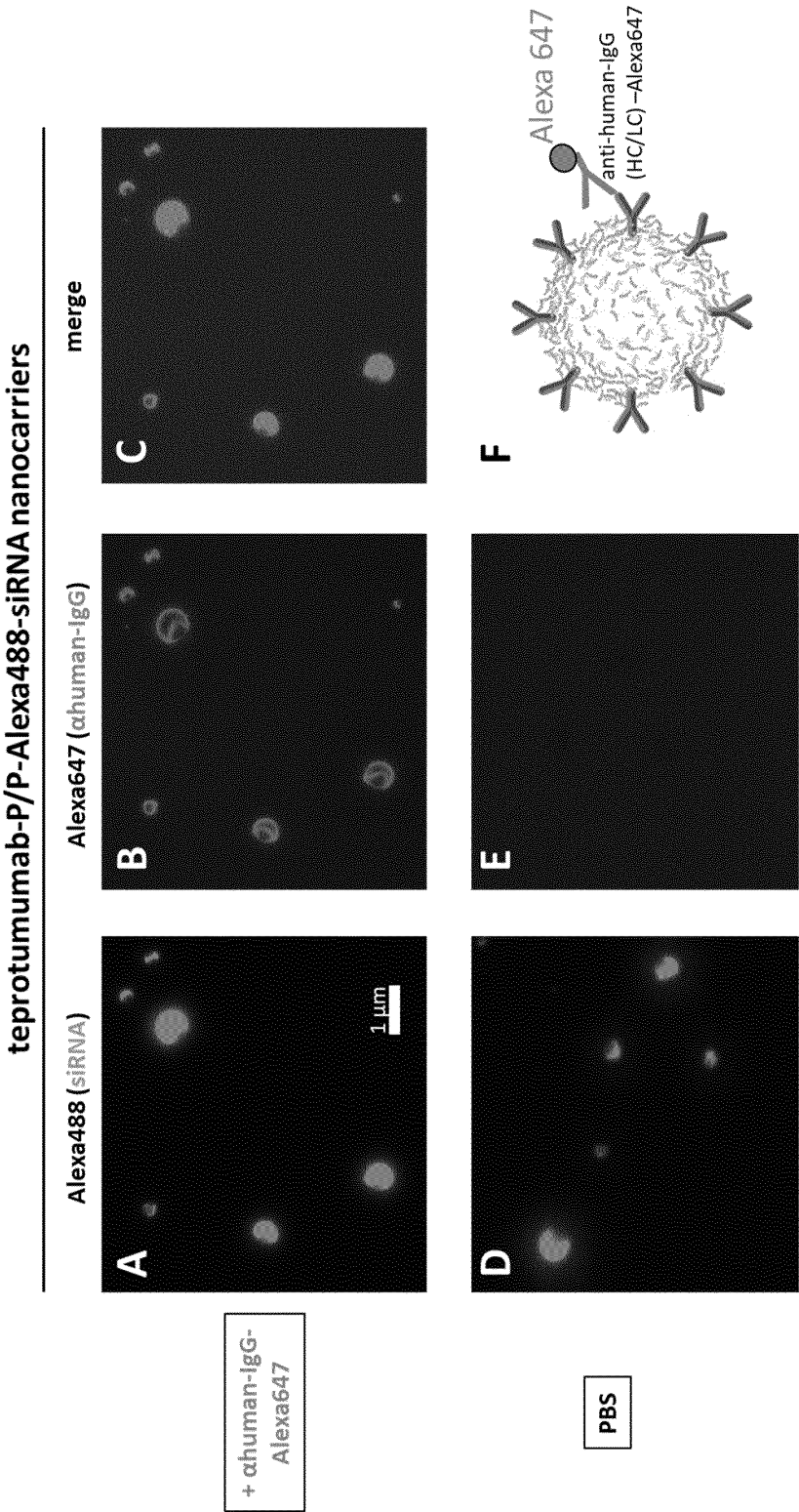
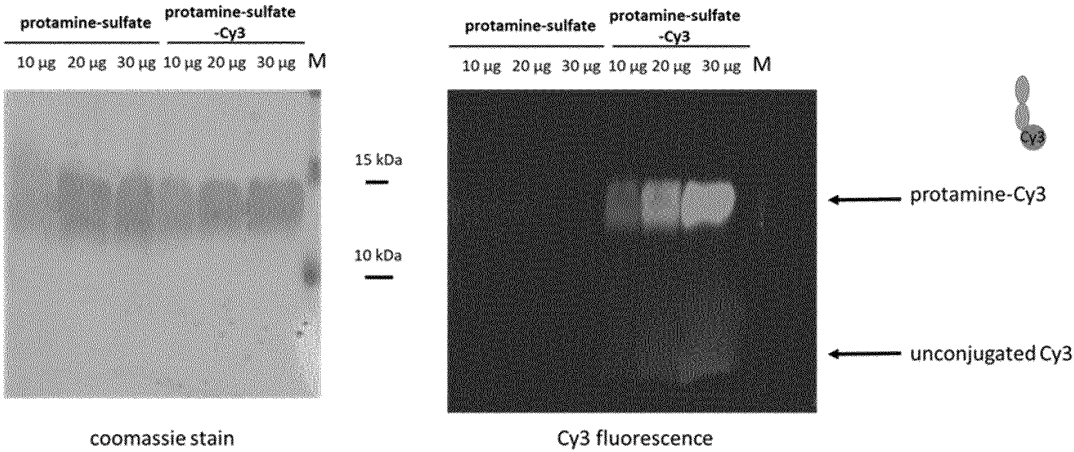


Figure 78

Visualisation of the free protamine in the nanocarrier complex:

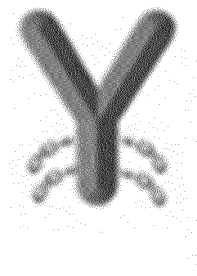
A

SDS-PAGE 20%

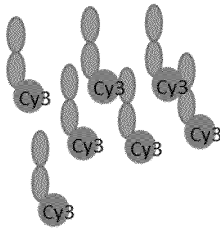


B

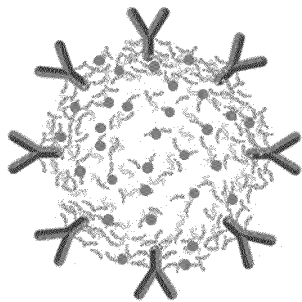
cetuximab-protamine
depleted from
free protamine



32x protamine-Cy3



nanocarrier formation



plus non-fluorescently
labeled (scr-) siRNA

Figure 78 (cont'd)

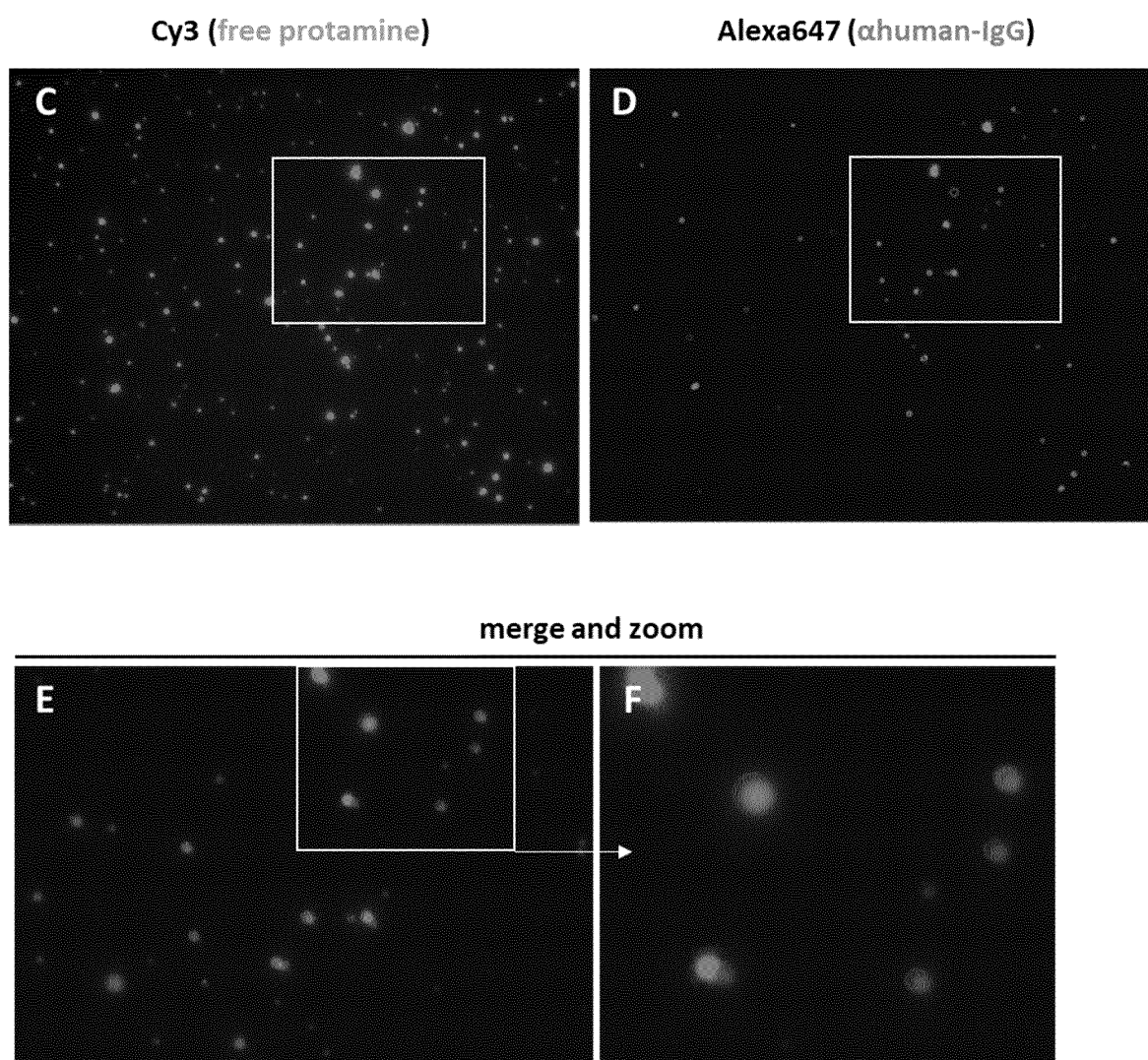


Figure 79

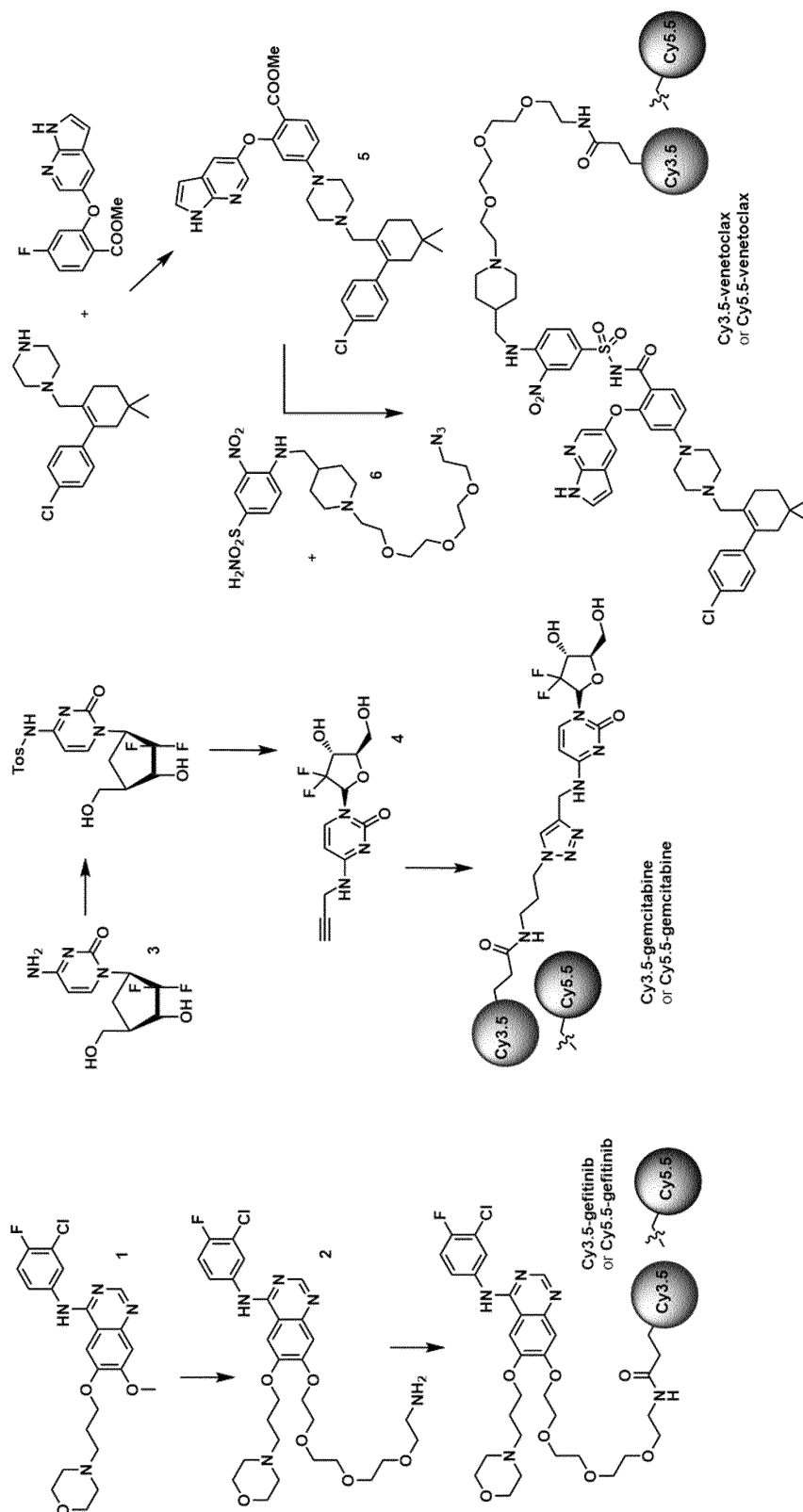


Figure 80

