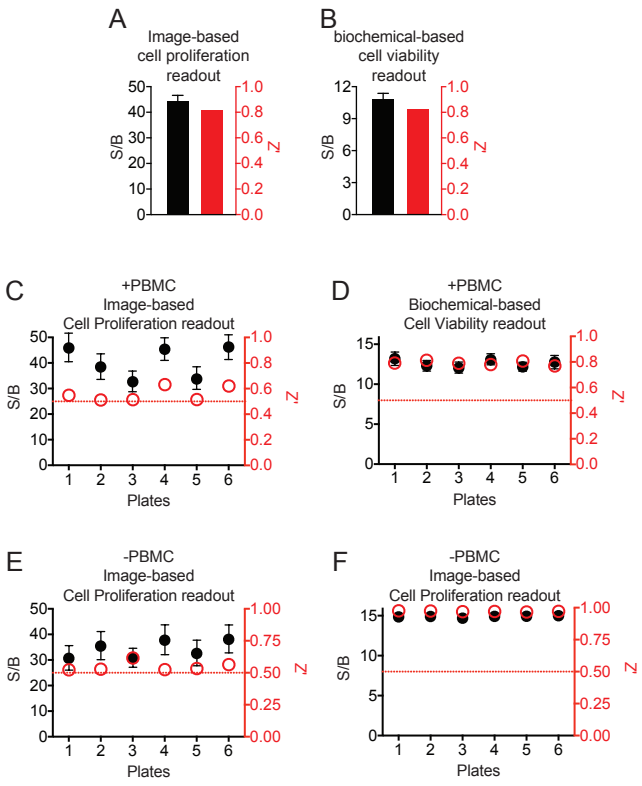

A
Image-based
cell proliferation
readout
S/B
Z
B
biochemical-based
cell viability
readout
S/B
Z
C
+PBMC
Image-based
Cell Proliferation readout
S/B
Z'
Plates
D
+PBMC
Biochemical-based
Cell Viability readout
S/B
Z'
Plates
E
-PBMC
Image-based
Cell Proliferation readout
S/B
Z'
Plates
F
-PBMC
Image-based
Cell Proliferation readout
S/B
Z'
Plates

Figure S1. Cell line authentication, related to Figure 1 and 2. The authenticity of the genomic-engineered KRAS-G12V isogenic cell lines and patient-derived colorectal cancer cell lines was experimentally verified by western blotting of the cell lysates using KRAS-G12V or pan-KRAS antibody.

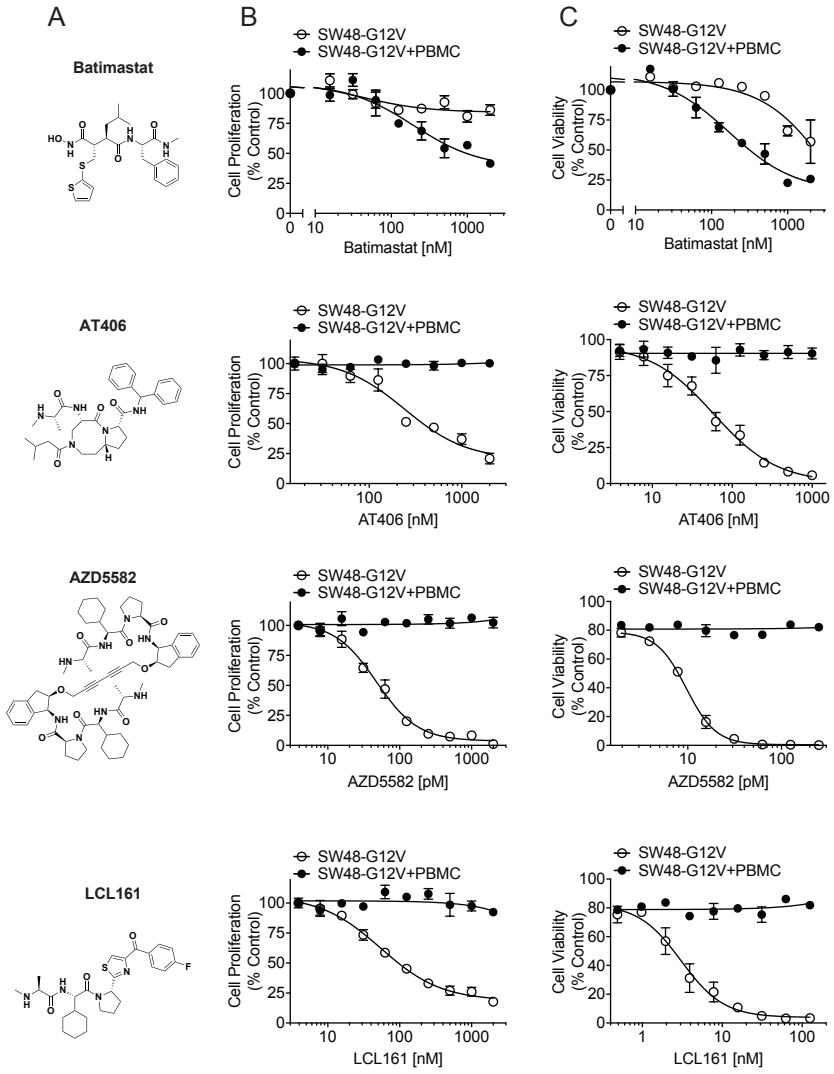
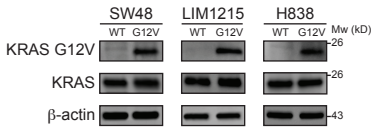

A
B
C
Batimastat
AT406
AZD5582
LCL161
SW48-G12V
SW48-G12V+PBMC
Cell Proliferation (% Control)
Cell Viability (% Control)
Batimastat [nM]
AT406 [nM]
AZD5582 [pM]
LCL161 [nM]

Figure S2. Assay and screening performance evaluation, related to Figure 1 and 2.

(A-B) S/B and Z' calculated at PBMC/cancer cell ratio of 5 from **(A)** image- and **(B)** biochemical-based readouts. The data are presented as mean ± SD from 4 replicate wells. **(C-F)** S/B and Z' calculated from six independent assay plates in the presence (**C** and **D**) or the absence (**E** and **F**) of PBMC using the image-based cell proliferation readouts (**C** and **E**) or the biochemical-based cell viability readouts (**D** and **F**). The data are presented as mean ± SD from 16 replicate wells. For dots that show no error bar, the error bar was smaller than the dot.


SW48
LIM1215
H838
WT G12V
WT G12V
WT G12V
Mw (kD)
KRAS G12V
KRAS
β-actin
26
26
43

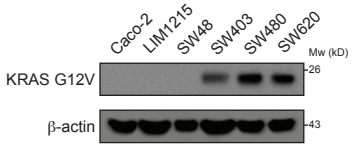

Caco-2
LIM1215
SW48
SW403
SW480
SW620
Mw (kD)
KRAS G12V
β-actin
26
43

Figure S3. Dose-response curves of batimastat and three additional IAP antagonists in HTiP assay, related to Figure 2. (A) Chemical structure of the compounds as indicated. **(B-C)** The corresponding dose-dependent inhibition curves of SW48-G12V cell growth from **(B)** image-based cell proliferation and **(C)** biochemical-based cell viability readouts. The data are presented as mean ± SEM from four replicate wells.