

## Description of Additional Supplementary Files

File Name: Supplementary Movie 1

Description: **Live imaging of phagocytosis of CD38 positive tumor cells**

Live imaging performed with Perkin Elmer Operetta in the presence of control antibody. Monocytes-derived macrophages (blue) engulfing of KMS-12-BM CD38<sup>low</sup> tumor cells (green).

File Name: Supplementary Movie 2

Description: **Live imaging of phagocytosis of CD38 positive tumor cells**

Live imaging performed with Perkin Elmer Operetta in the presence of ISB1442 used at 80nM. Monocytes-derived macrophages (blue) engulfing of KMS-12-BM CD38<sup>low</sup> tumor cells (green).

File Name: Supplementary Movie 3

Description: **Live imaging of phagocytosis of CD38-KO positive tumor cells**

Live imaging performed with Perkin Elmer Operetta in the presence of anti-CD47 (5F9) used at 8nM. Monocytes-derived macrophages (blue) engulfing NCI-H929 CD38<sup>+</sup> tumor cells (red) or NCI-H929 CD38-KO tumor cells (green).

File Name: Supplementary Movie 4

Description: **Live imaging of phagocytosis of CD38-KO positive tumor cells**

Live imaging performed with Perkin Elmer Operetta in the presence of ISB1442 used at 8nM. Monocytes-derived macrophages (blue) engulfing NCI-H929 CD38<sup>+</sup> tumor cells (red) or NCI-H929 CD38-KO tumor cells (green).