

## Figure S1 Validation of PLA detection of cJun/ATF2 dimers with single chain AP-1 molecules

Ad-HER cells were transfected with the indicated single chain cJun/AP-1 expressing vectors or the control vector (-) and after 24 h seeded for western analysis (A), immunofluorescence (IF) (B) and PLA (C). (A) Western blot (WB) analysis with ATF2- and cJun-specific antibodies. The numbers indicate the molecular weight markers. (B) IF analysis using an anti-cJun antibody and a FITC-conjugated secondary antibody (green). Nuclei were stained with DAPI (blue). (C) *In situ* PLA for cJun/ATF2 interactions (cJun/ATF2 PROX; red) with ATF2- and cJun-specific antibodies. Nuclei were stained with DAPI (blue).

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## Figure S2 PLA detection of cJun/cFos dimers in MMS-treated MDA-MB231 breast cancer cells

(A) MDA-MB231 breast cancer cells were left untreated (-) or were treated with methyl methane-sulfonate (MMS). After 4h, cells were lysed for western analysis with the indicated antibodies. Equal loading was confirmed with Ponceau S staining. (B) *In situ* PLA for cJun/cFos interactions (cJun/cFos PROX, red) in untreated (-) or MMS-treated MDA-MB231 cells. Cell nuclei were stained with DAPI (blue). (C) Quantification of the cJun/cFos PLA signals obtained in the cells shown under B by semi-automated image analysis with Blobfinder software. The average number of RCPs per cell is shown +/-SEM (\*\*\*\* P < 1\*10e-40).