Supplemental Figure 1: Inhibition of NF-κB does not significantly alter growth of basal-like breast cancer cell lines. (A, B) MTT analysis of the bulk population of SUM149 cells stably expressing empty vector or IκBα-SR **(A)** or the indicated shRNA constructs **(B)**.

Supplemental Figure 2: NF-κB signaling is required for SUM159 claudin-low breast cancer cells and is enriched in CD44+ claudin-low cells. (A) Phosphorylation of p65 and IκBα as markers of activation of canonical NF-κB signaling in SUM159 cells pre-treated with increasing doses of compound A and then treated with TNFα. **(B)** Quantification of tumorspheres formed by 100 SUM159 cells treated daily with 5 μM compound A. **(C)** Phosphorylation of p65 as a marker of activation of canonical NF-κB signaling in the indicated populations of SUM159 cells.

Supplemental Figure 3: Knockdown of p65 in breast cancer cells results in decreased fibronectin and vimentin protein levels. **(A, B)** Immunoblots of the indicated proteins in MDA-MB231 breast cancer cells transfected with either scramble or p65 siRNA.

Supplemental Figure 4: Addition of IL-6 receptor antagonistic antibody or recombinant IL-1 receptor antagonist reduces tumorsphere formation, but not significantly. (A) SUM149 cells plated for tumorsphere assay were treated with either an isotype control antibody or an IL-6R antagonistic antibody for 6 days. Antibodies were added to culture media every 24 hours. **(B)** SUM149 cells plated for tumorsphere assay were treated with either vehicle control or Anakinra, a recombinant form of IL-1 receptor antagonist, for 6 days. Drug or vehicle control was added to the culture media every 24 hours.

Reviewer Figure 1: Knockdown of p65, IKKα and IKKβ prevents p65 activation. Immunoblot of phosphorylated p65 at serine 536 in SUM19 cells stably infected with the indicated shRNA constructs.

Reviewer Figure 2: Non-canonical NF-κB signaling is required for basal-like breast cancer cells to self-renew. (A) Immunoblots of the indicated proteins in SUM149 or MDA-MB231 cells transfected with either scramble, pools of 4 different siRNAs directed towards p100/p52 or RelB siRNA or single siRNAs. **(B)** Quantification of tumorspheres formed by SUM149 cells or MDA-MB231 cells transfected with the indicated siRNA.

Reviewer Figure 3: IL-1β contributes to the self-renewal of basal-like breast cancer cells. (A) Q-PCR of IL-1β transcript levels in SUM149 or MDA-MB231 cells transfected with either scramble or IL-1β siRNA. Signal was normalized to GUSB and is relative to the scramble control. **(B)** Quantification of tumorspheres formed by SUM149 cells or MDA-MB231 cells transfected IL-1β siRNA pools.