



**Supplemental Fig. S7.** The effect of C646 treatment on TNF-responsive genes. **(A)** Top: cumulative separation of RELA (30 min) and CTCF peaks (0 min) in the 3 Mbp around *EDN1*. Bottom: Browser view of RNA- and ChIP-seq data (in reads per million) around *EDN1*. The RELA-bound super-enhancer (magenta box) and peaks “with” (black arrows) or “without” NF- $\kappa$ B motif (white arrows) are demarcated. **(B)** Browser view of 3C-seq data (in rpm) around *EDN1* using its TSS as viewpoint (yellow triangle) in the presence/absence of inhibitors. Magenta rectangle: enhancer cluster interacting with *EDN1*. **(C)** H3K27ac enrichments ( $\pm$ SD; n=2) at RELA-bound enhancers in *CXCL3*, *SAMD4A*, and *TNFAIP3* assessed using ChIP-qPCR in the presence/absence of C646; \*: significantly different;  $P<0.01$ , two-tailed Student’s unpaired *t*-test. The inactive *OR1* locus serves as a negative control. **(D)** Log<sub>2</sub>-fold changes in nascent RNA levels ( $\pm$ SD; n=3) induced by TNF at 30 min post-stimulation in the presence or absence of inhibitors (assessed using RT-qPCR). \*: significantly different to untreated levels;  $P<0.01$ , two-tailed Student’s unpaired *t*-test. Note that for *CXCL3* primers targeting exonic RNA were used due to its rather short introns. **(E)** Browser views of RELA, H3K27ac, and CTCF ChIP-seq data (in reads per million) along the TNF-induced *TNFAIP3* and *CXCL3* loci on Chromosomes 6 and 4, respectively. **(F)** Box plots showing the relative mRNA expression levels in two “spiked” RNA-seq replicas generated in the presence (purple) or absence (dark grey) of C646 before (“raw”) or after sample normalization (“normalized”). **(G)** Log<sub>2</sub>-fold changes in intronic RNA levels ( $\pm$ SEM; n=2) between C646-treated and untreated cells at 30 min. **(H)** Pie charts showing the fraction of genes up- (left) or downregulated by C646 (right) that are present in 0-min ChIA-PET data and connected to “with” (orange) or “without” RELA-bound peaks.