

Supplementary Figures

Figure S1. Example locus *VAT1L*. Top – Hi-C interaction map and Eigenvector 1 plot of a ~6Mb region of Chr16 containing the *VAT1L* locus from WT control, WT ATRA-treated, BKO control and BKO ATRA-treated cells (light blue: WT Ctrl, dark blue: WT ATRA, light green: BKO Ctrl, dark green: BKO ATRA). Middle – zoomed-in E1 plot containing the *VAT1L* gene (red: A compartment, blue: B compartment). Bottom Log2 fold change RNA-seq values for *VAT1L* in indicated comparisons.

Figure S2. Example locus *FGFR2*. Top – Hi-C interaction map and Eigenvector 1 plot of a ~4Mb region of Chr10 containing the *FGFR2* locus, from WT control, WT ATRA-treated, BKO control and BKO ATRA-treated cells. (light blue: WT Ctrl, dark blue: WT ATRA, light green: BKO Ctrl, dark green: BKO ATRA). Middle – zoomed-in E1 plot containing the *FGFR2* gene (red: A compartment, blue: B compartment). Bottom Log2 fold change RNA-seq values for *FGFR2* in indicated comparisons.

Figure S3. Example locus *CYP26B1*. Top – Hi-C interaction map and Eigenvector 1 plot of a ~5Mb region of Chr10 containing the *CYP26B1* locus, from WT control, WT ATRA-treated, BKO control and BKO ATRA-treated cells (light blue: WT Ctrl, dark blue: WT ATRA, light green: BKO Ctrl, dark green: BKO ATRA). Middle – zoomed-in E1 plot containing the *CYP26B1* gene (red: A compartment, blue: B compartment). Bottom Log2 fold change RNA-seq values for *CYP26B1* in indicated comparisons.

Figure S4. Example locus *NTRK2*. Top – Hi-C interaction map and Eigenvector 1 plot of a ~5Mb region of Chr10 containing the *NTRK2* locus, from WT control, WT ATRA-treated, BKO control and BKO ATRA-treated cells (light blue: WT Ctrl, dark blue: WT ATRA, light green: BKO Ctrl, dark green: BKO ATRA). Middle – zoomed-in E1 plot containing the *NTRK2* gene (red: A compartment, blue: B compartment). Bottom Log2 fold change RNA-seq values for *NTRK2* in indicated comparisons.

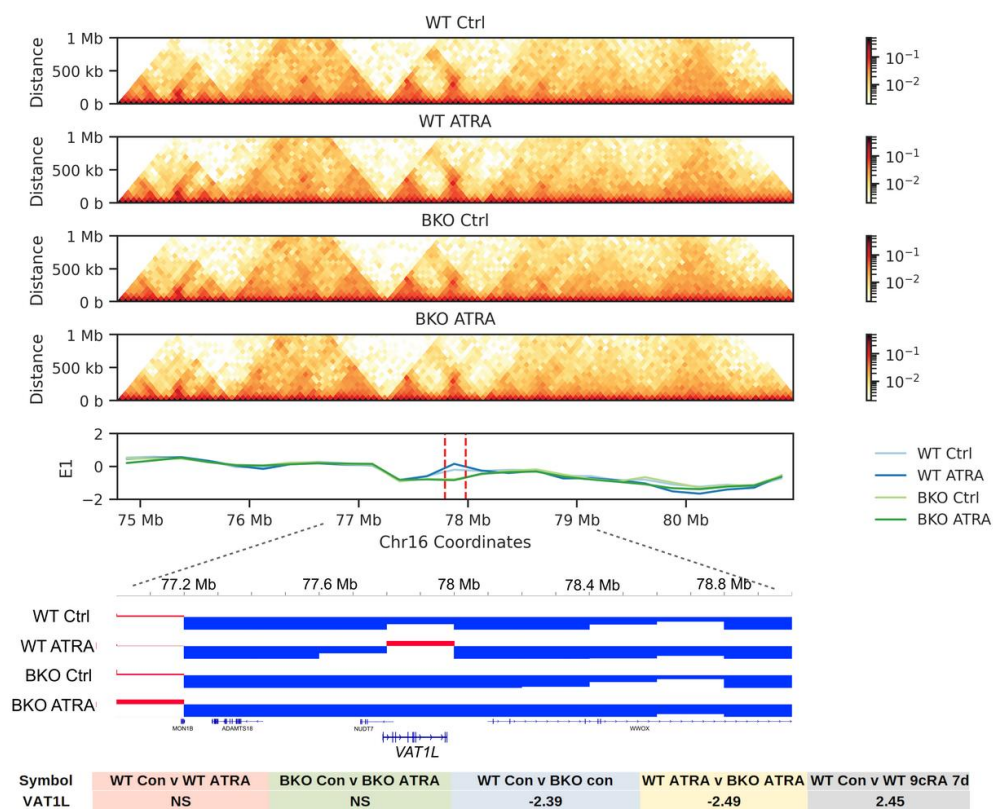


Figure S1

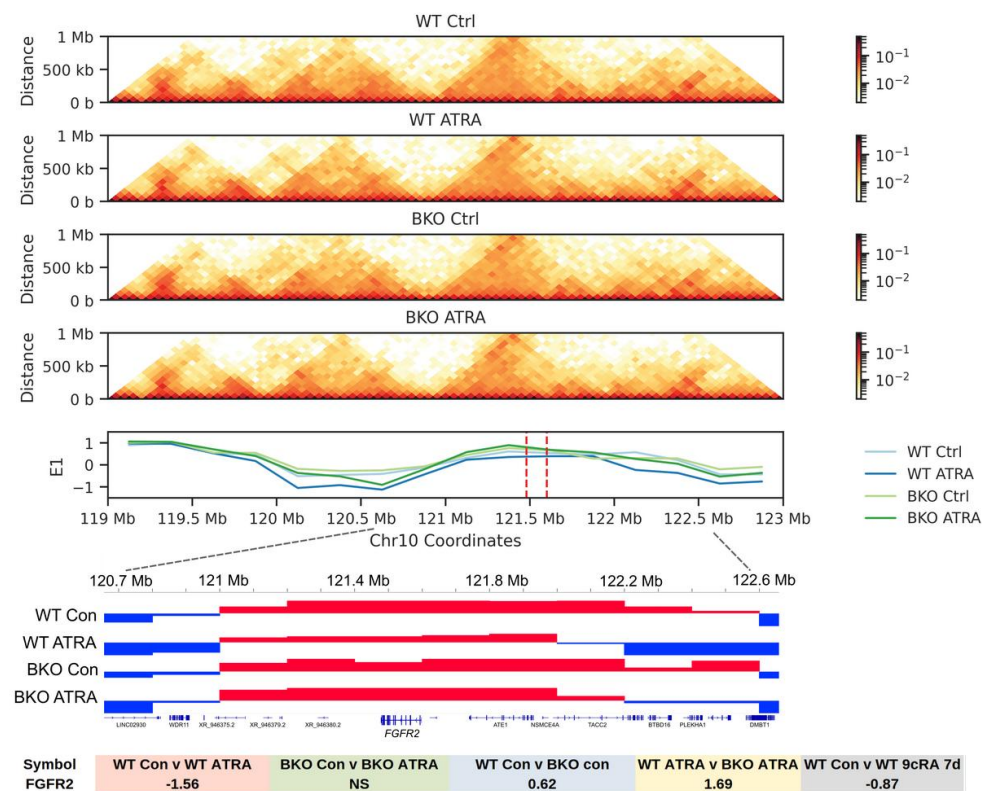


Figure S2

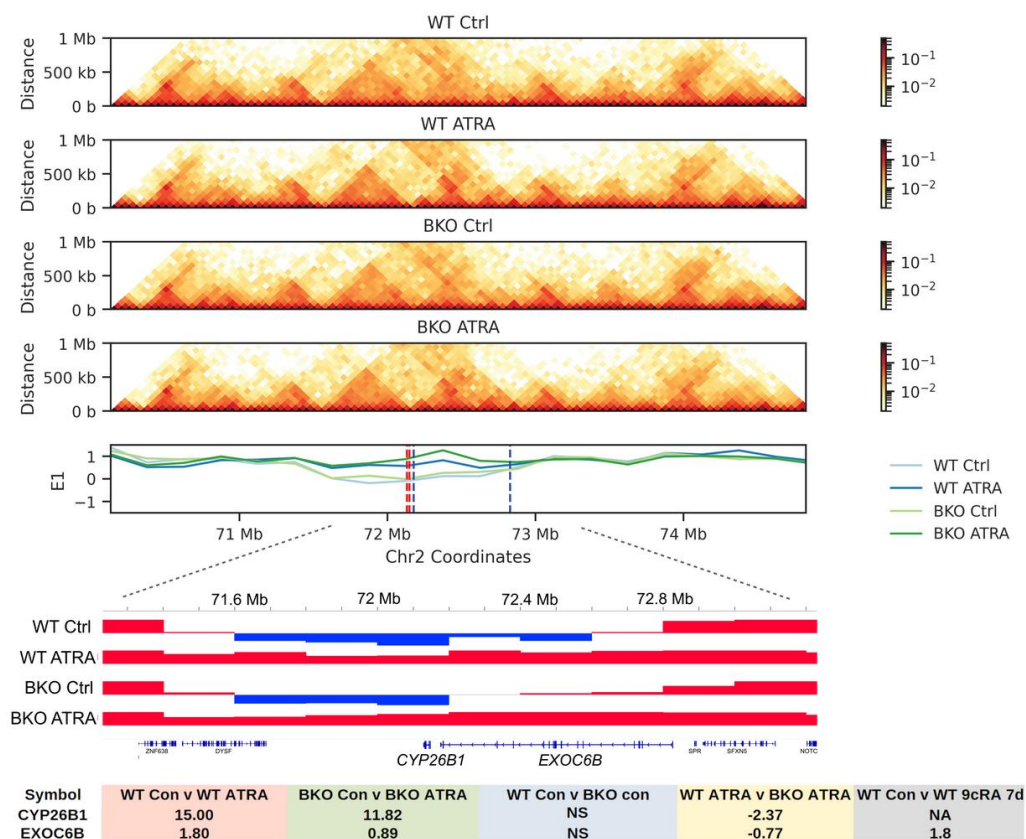


Figure S3

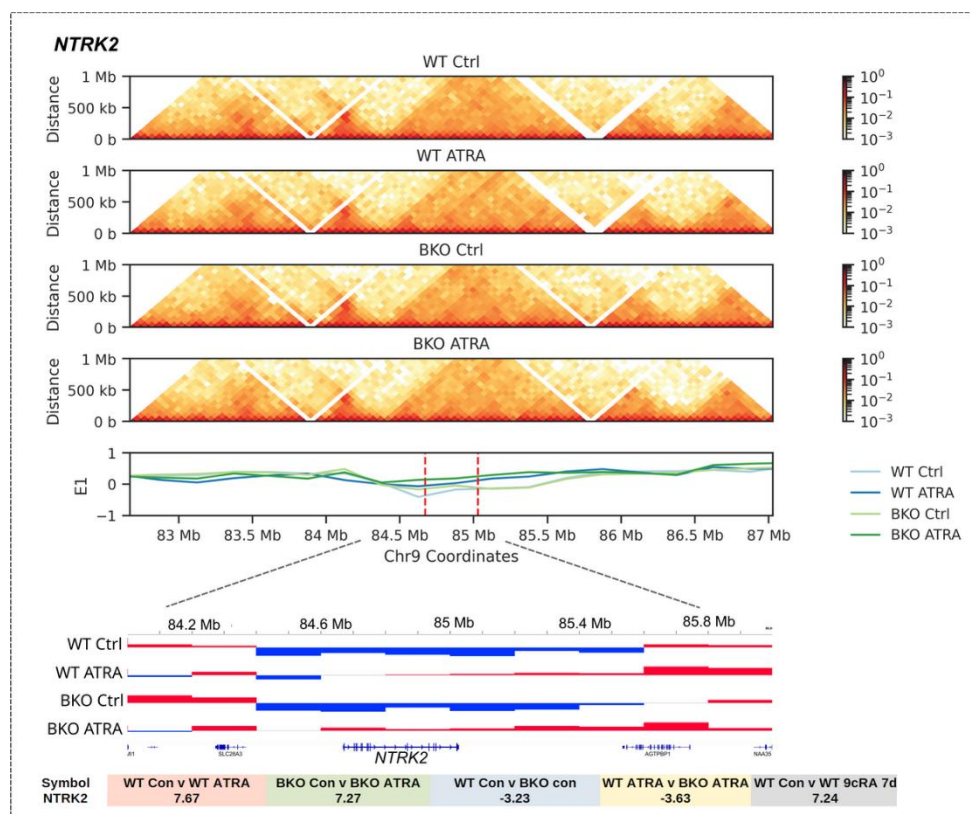


Figure S4

