

Supplemental Table S2. dCNE families in which one member is located within the intron of a non-target gene. All members of these families are located upstream or downstream of their associated paralogous genes. However, one or more members are found to be located in large intergenic spaces, while one member is located within the intron of a gene that has no paralogs in the regions surrounding other family members. In all but two cases, the dCNE is conserved within the introns of the orthologous gene (+) in dog, mouse, rat and chicken suggesting the ancestral dCNE originated in this location. Occasionally, the dCNE was located 5' of the orthologous gene and not within its introns (5'). Cases where we could not detect the dCNE within a specific genome or the dCNE was located on one of the assigned "random" chromosomes (i.e. sections of sequence that cannot yet be mapped to a specific chromosome) were marked non-applicable (NA). Interestingly, in two cases, one dCNE is located within a *trans-dev* gene which is not the target gene [*ZNF291* (Figure 4, main text), and *ZNF407*].

Target Gene	Intronic Gene	Family ID(s)	Human	Dog	Mouse	Rat	Chicken
<i>BARHL1</i>	<i>C9orf98</i>	19	+	+	+	+	NA
<i>BARHL1</i>	<i>NP_997300</i>	20, 21	+	+	+	NA	+
<i>ZNF503</i>	<i>C10orf11</i>	54, 55	+	+	+	NA	+
<i>PAX5</i>	<i>ZCCHC7</i>	57	+	+	+	+	NA
<i>EBF</i>	<i>EPN4_HUMAN</i>	64	+	+	+	+	+
<i>NKX6-2</i>	<i>INPP5A</i>	73, 74	+	+	+	+	+
<i>DACH2</i>	<i>CHML</i>	138,139	+	+	+	+	+
<i>POU4F2</i>	<i>Q8NBP8</i>	141	+	+	+	+	+
<i>ZIC2</i>	<i>CLYBL</i>	146,147,148	+	+	+	NA	5'
<i>ZIC2</i>	<i>PCCA</i>	150	+	+	+	NA	+
<i>FOXA1</i>	<i>MIPOL1</i>	163	+	+	+	5'	+
<i>OTX1</i>	<i>EHBP1</i>	165	+	+	+	+	+
<i>ONECUT2</i>	<i>WDR7</i>	192	+	+	+	+	NA
<i>SMAD3</i>	<i>MAP2K5</i>	199	+	+	+	+	+
<i>ISL2</i>	<i>ZNF291</i>	203	+	+	+	+	+
<i>NR2F1</i>	<i>NP_114431</i>	208, 209	+	+	NA	+	+
<i>SDCCAG33</i>	<i>ZNF407</i>	303, 304	+	+	+	+	+
<i>FOXD4</i>	<i>CBWD1</i>	386	+	+	+	+	NA
<i>SHOX2</i>	<i>NP_057709</i>	475	+	+	+	NA	+