## **Description of Additional Supplementary Files**

File Name: Supplementary Data 1

**Description:** File containing the set of overlapping ENDseq peaks identified in the ESC<sup>Dux</sup> Clone 1

and Clone 2 used in this manuscript.

File Name: Supplementary Data 2

**Description:** File containing the set of ENDseq peaks identified in the ESC<sup>Dux</sup> Clone 1 used in this

manuscript.

File Name: Supplementary Data 3

**Description:** File containing the set of ENDseq peaks identified in the ESC<sup>Dux</sup> Clone 2 used in this

manuscript.

File Name: Supplementary Data 4

**Description:** File containing the set of genes associated by proximity to the set of overlapping

ENDseq peaks identified in the ESC<sup>Dux</sup> Clone 1 and Clone 2 used in this manuscript.

File Name: Supplementary Data 5

**Description:** File containing the set of upregulated or downregulated genes upon DUX expression associated by proximity to the set of overlapping ENDseq peaks identified in the ESC<sup>Dux</sup> Clone 1

and Clone 2 used in this manuscript.

File Name: Supplementary Data 6

**Description:** File containing the set of overlapping ENDseq peaks identified in the ESC<sup>Dux</sup> Clone 1

and Clone 2 used in this manuscript enriched in CTCF binding.

File Name: Supplementary Data 7

**Description:** File containing the different sets of CTCF peaks identified in untreated and DOX-treated sorted RFPneg or sorted RFPpos cells obtained from the LTR-RFP reporter ESC<sup>Dux</sup> Clone 1

and Clone 2 used in this manuscript.

File Name: Supplementary Data 8

Description: File containing the different sets of CTCF peaks identified in sorted RFPneg or sorted

RFPpos cells from the wild-type LTR-RFP reporter ESC WT1 and WT2 used in this manuscript.

File Name: Supplementary Movie 1

**Description:** Live cell imaging of DOX-treated LTR-RFP reporter ESC<sup>Dux</sup> expressing H2B-GFP.

File Name: Supplementary Movie 2

**Description:** Live cell imaging of LTR-RFP reporter wild-type ESC expressing H2B-GFP.

**File Name:** Supplementary Movie 3

Description: Live cell imaging of LTR-RFP reporter ESC<sup>CTCF-AID</sup> upon auxin addition.

File Name: Supplementary Software 1

Description: Codes for the pipeline used to analyze the Cut&Run data from this manuscript.