Supplementary information

## Proximity-dependent biotin identification (BioID) reveals a dynamic LSD1-CoREST interactome during embryonic stem cell differentiation

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List of supplementary data:

**Supplementary Figure 1** – Expression of BirA\*-tagged CoREST complex members permits biotinylation of proximal proteins.

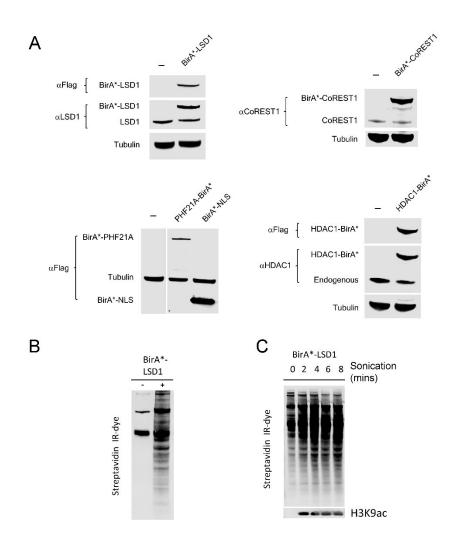
**Supplemental Figure 2** – Western blot for the indicated proteins using whole cell protein extracts isolated during sampling for BioID in ES cells.

Supplementary Table 1 – 293T BioID dataset

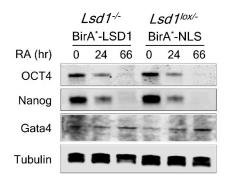
Supplementary Table 2 – ESC LSD1 BioID dataset

Supplementary Table 3 – 293T and ESC overlapping targets

Supplementary Table 4 – Antibodies used in this study



**Supplementary Figure 1**. Expression of BirA\*-tagged CoREST complex members permits biotinylation of proximal proteins. **A**, western blots for the indicted proteins using either anti-FLAG, or antibodies specific to the protein of interest, as indicated. **B**, Biotinylated proteins, with and without the addition of exogenous biotin, detected using streptavidin conjugated to an infra-red<sup>800</sup> dye. **C**, Whole cell protein extracts were made from pellets sonicated for the indicated times, with biotinylated proteins detected using streptavidin conjugated to an infra-red<sup>800</sup> dye.



**Supplemental Figure 2.** Western blot for the indicated proteins using whole cell protein extracts isolated during sampling for BioID in ES cells. The time-course of retinoic acid (RA) treatment is indicated. Proteins were extracted from either control ( $Lsd1^{Lox/-}$ ) and Lsd1 knockout ( $Lsd1^{-/-}$ ) ES cells.