

Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: Strains used in this study.

File Name: Supplementary Data 2

Description: List of primers, sgRNA and repair oligo used in this study.

File Name: Supplementary Data 3

Description: List of differentially expressed protein-coding genes in P0 *mbd-2^{-/-}* RNA-seq.

File Name: Supplementary Data 4

Description: List of differentially expressed protein-coding genes in F1 *mbd-2^{-/-}* RNA-seq.

File Name: Supplementary Data 5

Description: List of differentially expressed protein-coding genes in P0 *gfp::3xflag::mbd-2^{ΔCC/ΔCC}* RNA-seq.

File Name: Supplementary Data 6

Description: List of differentially expressed protein-coding genes in F1 *gfp::3xflag::mbd-2^{ΔCC/ΔCC}* RNA-seq.

File Name: Supplementary Data 7

Description: List of GFP::3xFLAG::MBD-2 and GFP::3xFLAG::MBD-2^{ΔCC} - interacting proteins identified with log₂ iBAQ (intensity Based Absolute Quantification). Relative log₂ iBAQ (subtraction of log₂ iBAQ in wildtype control (N2 strain with untagged MBD-2)) with ≥ 1 are shown. NuRD complex components are colored in green. The log₂ iBAQ of undetectable proteins (#N/A) in the negative control was converted to 0 for calculation of log₂ iBAQ difference.

File Name: Supplementary Data 8

Description: List of source data for adult worm ChIP-seq of *Ce1*-NuRD components and histone modifications from published data.

File Name: Supplementary Data 9

Description: List of annotated peaks bound by MBD-2 in paired-end data.

File Name: Supplementary Data 10

Description: List of annotated peaks bound by MBD-2 in single-end data.

File Name: Supplementary Data 11

Description: List of annotated NuRD-overlapping MBD-2 peaks.

File Name: Supplementary Data 12

Description: List of annotated non-NuRD-overlapping MBD-2 peaks.

File Name: Supplementary Data 13

Description: Number of MBD-2 (narrow) peaks overlapping with various histone marks (broad) peaks.

File Name: Supplementary Data 14

Description: Number of histone mark (broad) peaks overlapping with different categories of MBD-2 peaks, including all peaks, non-NuRD-overlapping peaks, and NuRD-overlapping peaks (Peak overlap parameter: ≥ 1 bp).