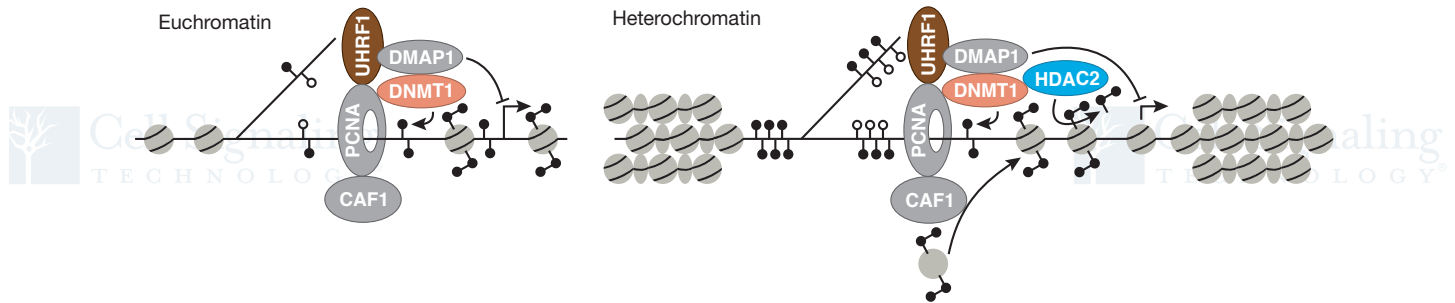
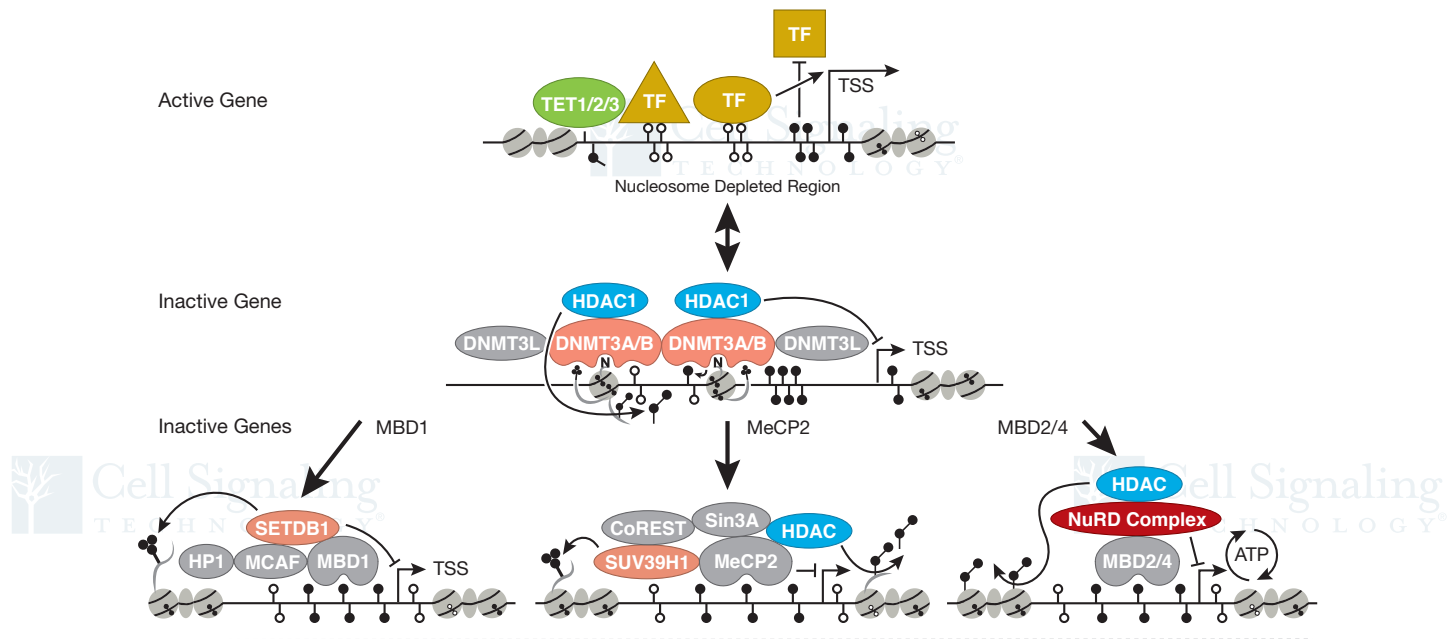


# DNA Methylation

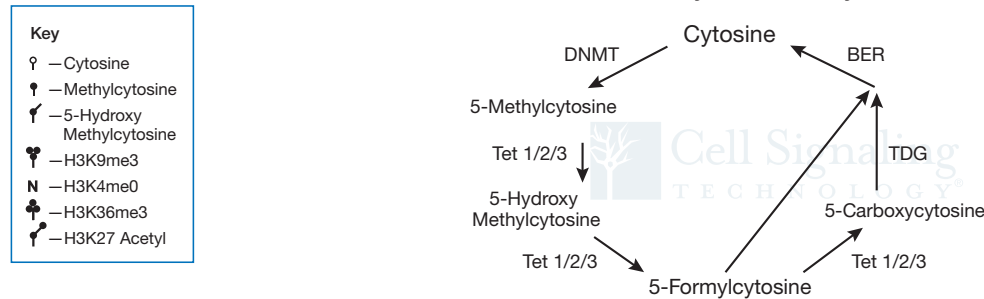
## Maintenance Methylation During DNA Replication



## De novo Cytosine Methylation



## Tet-Mediated Cytosine Demethylation



**Key**

- ♀ — Cytosine
- ♂ — Methylcytosine
- ♂ — 5-Hydroxy Methylcytosine
- ♂ — H3K9me3
- N — H3K4me0
- ♂ — H3K36me3
- ♂ — H3K27 Acetyl

## Pathway Diagram Key

- Direct Stimulatory Modification
- Multistep Stimulatory Modification
- Tentative Stimulatory Modification
- Direct Inhibitory Modification
- Multistep Inhibitory Modification
- Tentative Inhibitory Modification
- ⊣ Transcriptional Inhibitory Modification

- Acetylase
- Apoptosis/ Autophagy Regulator
- Deacetylase or Cytoskeletal Protein
- GTPase/GAP/GEF
- Metabolic Enzyme
- Phosphatase
- Receptor
- Ubiquitin/SUMO Ligase or Deubiquitinase
- Adaptor
- Cell Cycle Regulator
- Growth Factor/Cytokine/ Development Protein
- Kinase
- Methyltransferase or G-protein
- Protein Complex
- Transcription Factor or Translation Factor
- Other

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