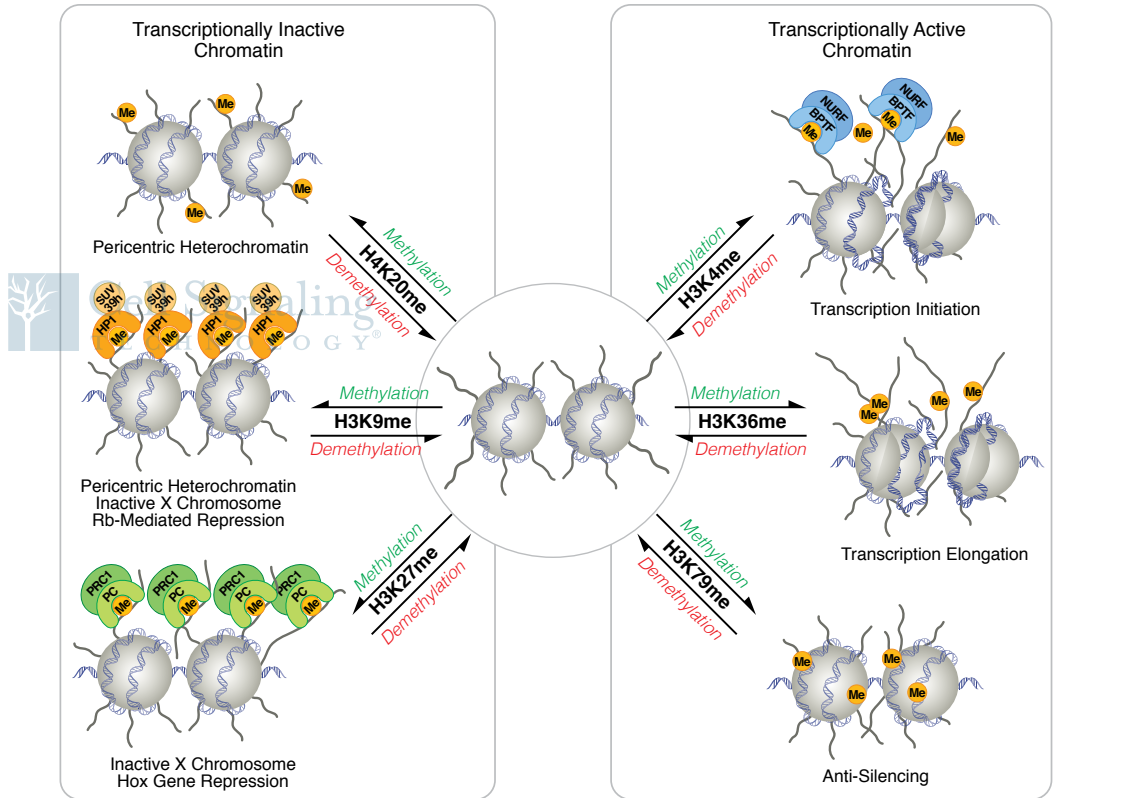


Histone Lysine Methylation



Methylation Degree: + Mono † Di ‡ Tri

H4K20me

Methylases:

- SET8/KMT5A (+)
- NSD1/KMT3B (+,†)
- ASH1L/KMT2H (+,†,‡)
- SUV420H1/KMT5B (†,‡)
- SUV420H2/KMT5C (†,‡)
- NSD2/KMT3G (+,†)

Demethylases:

- JHDM1D/KDM7A (+,†)
- PHF8/KDM7B (+,†)

H3K9me

Methylases:

- PRDM3/KMT8E (+)
- PPRDM16/KMT8F (+)
- G9a/EHMT2/KMT1C (+,†)
- EHMT1/KMT1D (+,†)
- ASH1L/KMT2H (+,†,‡)
- PRDM2/KMT8A (+,†,‡)
- PRDM8/KMT8D (†)
- SUV39H1/KMT1A (†,‡)
- SUV39H2/KMT1B (†,‡)
- ESET/KMT1E (†,‡)
- CLLD8/KMT1F (†,‡)

Demethylases:

- AOX1/KDM1B (+,†)
- JMJ1A/KDM3A (+,†)
- JMJ1B/KDM3B (+,†)
- JMJ1C/KDM3C (+,†)
- JHDM1D/KDM7A (+,†)
- PHF8/KDM7B (+,†)
- JMJ2A/KDM4B (†,‡)
- JMJ2B/KDM4B (†,‡)
- JMJ2C/KDM4C (†,‡)
- JMJ2D/KDM4D (†,‡)
- KDM4E/KDM4DL (†,‡)

H3K27me

Methylases:

- Ezh2/KMT6 (+,†,‡)
- NSD2/KMT3G (+,†,‡)
- NSD3/KMT3F (†,‡)
- JHDM1D/KDM7A (+,†)
- PHF8/KDM7B (+,†)
- UTX/KDM6A (†,‡)
- JMJ3/KDM6B (†,‡)

Demethylases:

- JHDM1D/KDM7A (+,†)
- PHF8/KDM7B (+,†)
- UTX/KDM6A (†,‡)
- JMJ3/KDM6B (†,‡)

H3K4me

Methylases:

- MLL1/KMT2A (+,†,‡)
- MLL2/KMT2B (+,†,‡)
- MLL3/KMT2C (+)
- MLL4/KMT2D (+)
- SET1A/KMT2F (+,†,‡)
- SET1B/KMT2G (+,†,‡)
- NSD3/KMT3F (+,†)
- NSD2/KMT3G (+,†)
- SET7/KMT7 (†)
- SMYD3/KMT3E (†,‡)
- ASH1L/KMT2H (+,†,‡)
- PRDM9/KMT8B (†)

Demethylases:

- LSD1/KDM1A (+,†)
- AOX1/KDM1B (+,†)
- JARID1A/KDM5A (†,‡)
- JARID1B/KDM5B (†,‡)
- JARID1C/KDM5C (†,‡)
- JARID1D/KDM5D (†,‡)

H3K36me

Methylases:

- NSD1/KMT3B (+,†)
- SMYD2/KMT3C (+,†)
- NSD2/KMT3G (+,†)
- SET2/KMT3A (†)
- JMJ1A/KDM2A (+,†)
- JMJ1B/KDM2B (+,†)
- JMJ2A/KDM4A (†,‡)
- JMJ2B/KDM4B (†,‡)
- JMJ2C/KDM4C (†,‡)
- JMJ2D/KDM4D (†,‡)
- KDM4DL/KDM4E (†,‡)

Demethylases:

- LSD1/KDM1A (+,†)
- AOX1/KDM1B (+,†)
- JARID1A/KDM5A (†,‡)
- JARID1B/KDM5B (†,‡)
- JARID1C/KDM5C (†,‡)
- JARID1D/KDM5D (†,‡)

H3K79me

Methylases:

- DOTIL/KMT4 (+,†,‡)
- ???

Demethylases:

- ???

Pathway Diagram Key

