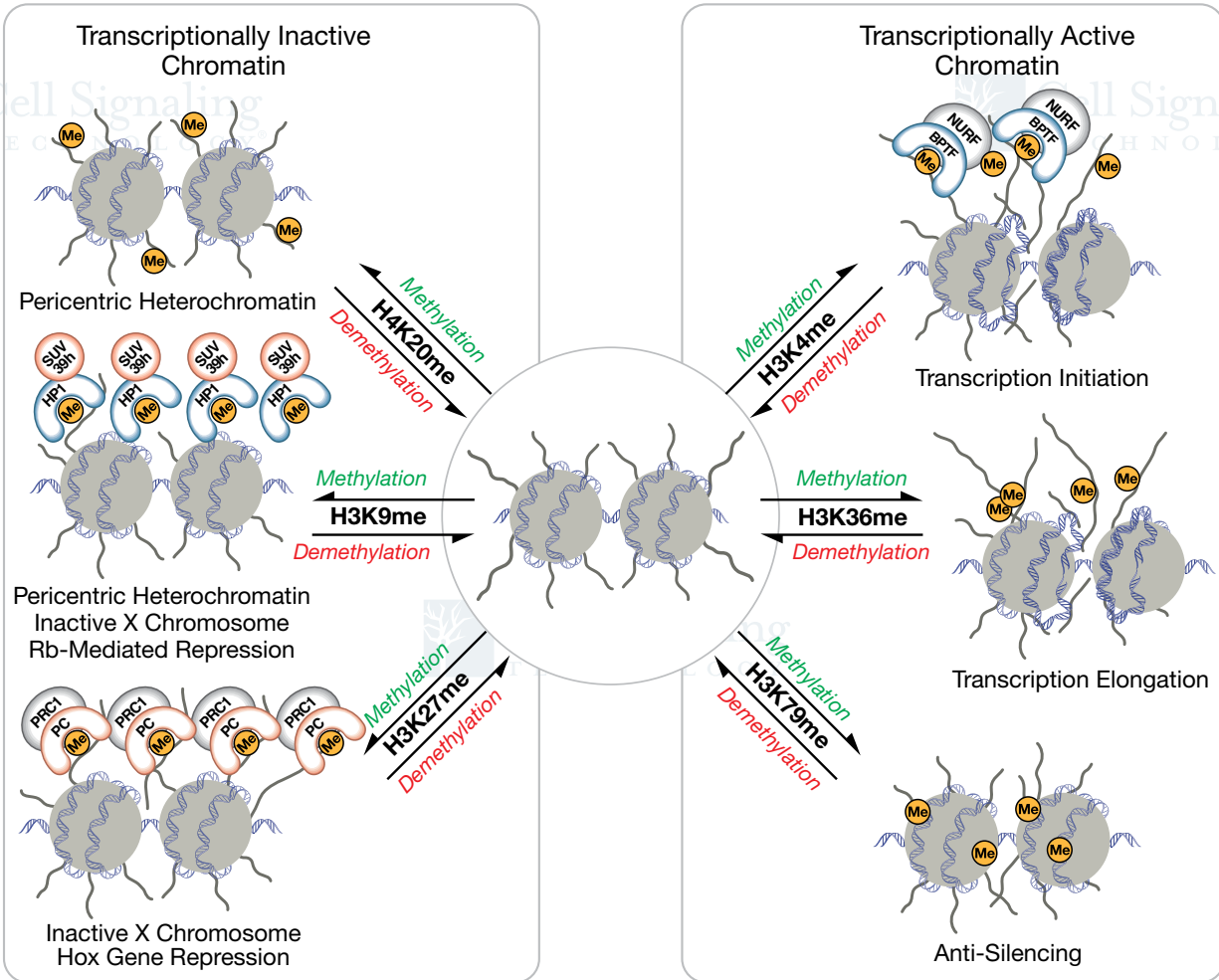




# Histone Lysine Methylation



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:

AOF1/KDM1B (+,†)  
JMJD1A/KDM3A (+,†)  
JMJD1B/KDM3B (+,†)  
JMJD1C/KDM3C (+,†)  
JHDM1D/KDM7A (+,†)  
PHF8/KDM7B (+,†)  
JMJD2A/KDM4B (†,‡)  
JMJD2B/KDM4B (†,‡)  
JMJD2C/KDM4C (†,‡)  
JMJD2D/KDM4D (†,‡)  
KDM4E/KDM4DL (†,‡)

## H3K27me

### Methylases:

Ezh2/KMT6 (+,†,‡)  
NSD2/KMT3G (+,†,‡)  
NSD3/KMT3F (†,‡)

### Demethylases:

JHDM1D/KDM7A (+,†)  
PHF8/KDM7B (+,†)  
UTX/KDM6A (†,‡)  
JMJD3/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 (+,†)  
AOF1/KDM1B (+,†)  
JARID1A/KDM5A (†,‡)  
JARID1B/KDM5B (†,‡)  
JARID1C/KDM5C (†,‡)  
JARID1D/KDM5D (†,‡)

## H3K36me

### Methylases:

NSD1/KMT3B (+,†)  
SMYD2/KMT3C (+,†)  
NSD2/KMT3G (+,†)  
SET2/KMT3A (‡)  
JMJD1A/KDM2A (+,†)  
JMJD1B/KDM2B (+,†)  
JMJD2A/KDM4A (†,‡)  
JMJD2B/KDM4B (†,‡)  
JMJD2C/KDM4C (†,‡)  
JMJD2D/KDM4D (†,‡)  
KDM4DL/KDM4E (†,‡)

### Demethylases:

???

## H3K79me

### Methylases:

DOTIL/KMT4 (+,†,‡)  
???

### Demethylases:

???